East Anglia ONE North and East Anglia TWO Offshore Windfarms

Applicants' Comments on Natural England's Deadline 2 Submissions

Applicant: East Anglia TWO and East Anglia ONE North Limited
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Applicable to East Anglia ONE North and East Anglia TWO

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Glossary of Acronyms

AA	Appropriate Assessment
AEoI	Adverse Effect on Integrity
AONB	Area of Outstanding Natural Beauty
APP	Application Document
APP	Application Document
BEIS	Department for Business, Energy & Industrial Strategy
DCO	Development Consent Order
DML	Deemed Marine Licence
EEC	Ecological Enhancement Clarification Note
EIA	Environmental Impact Assessment
EMP	Ecological Management Plan
EOD	Explosive Ordnance Clearance
ES	Environmental Statement
ESC	East Suffolk Council
ExA	Examining Authority
FFC	Flamborough & Filey Coast
GBBG	Great Black-Backed Gull
HDD	Horizontal Directional Drill
HRA	Habitats Regulation Assessment
IPMP	In-Principle Monitoring Plan
IPSIP	In-Principle Site Integrity Plan
LBBG	Lesser Black-Backed Gull
LCA	Landscape Character Area
LCT	Landscape Character Type
LMP	Landscape Management Plan
LSE	Likely Significant Effect
LVIA	Landscape and Visual Impact Assessment
MHWS	Mean High Water Springs
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Management Organisation
NE	Natrual England
NEQ	Net Explosive Quantity
NMC	Non Material Change
NPS	National Policy Statement
NRMM	Non-Road Mobile Machinery
NSIP	Nationally Signficant Infrastructure Project
OLEMS	Outline Landscape and Ecological Management Strategy
OWF	Offshore Windfarm
PD	Procedural Decision
PEIR	Preliminary Environmental Information Report
PEIR	Preliminary Environmental Information Report
PEMP	Project Environmental Management Plan
PVA	Population Viability Analysis
RR	Relevant Representation
RSPB	Royal Society for the Protection of Birds
RTD	Red-Throated Diver
SAC	Special Area of Conservation
SCC	Suffolk County Council
SCI	Site Conservation Interest
SEAS	Suffolk Energy Action Solutions
SIP	Site Integrity Plan

SLVIA	Seascape, Landscape and Visual Amenity
SNCB	Statutory Nature Conservation Body
SNH	Scottish Natural Heritage
SoS	Secretary of State
SPA	Special Protected Area
SSSI	Site of Special Scientific Interest
TWT	The Wildlife Trusts
UK	United Kingdom
UXO	Unexploded Ordnance
WQ	Written Question

Glossary of Terminology

Applicant	East Anglia TWO Limited / East Anglia ONE North Limited
Cable sealing end compound	A compound which allows the safe transition of cables between the overhead lines and underground cables which connect to the National Grid substation.
Cable sealing end (with circuit breaker) compound	A compound (which includes a circuit breaker) which allows the safe transition of cables between the overhead lines and underground cables which connect to the National Grid substation.
Construction consolidation sites	Compounds associated with the onshore works which may include elements such as hard standings, lay down and storage areas for construction materials and equipment, areas for vehicular parking, welfare facilities, wheel washing facilities, workshop facilities and temporary fencing or other means of enclosure.
Construction operation and maintenance platform	A fixed offshore structure required for construction, operation, and maintenance personnel and activities.
Development area	The area comprising the onshore development area and the offshore development area (described as the 'order limits' within the Development Consent Order).
East Anglia ONE North project	The proposed project consisting of up to 67 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
East Anglia ONE North windfarm site	The offshore area within which wind turbines and offshore platforms will be located.
East Anglia TWO project	The proposed project consisting of up to 75 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
East Anglia TWO windfarm site	The offshore area within which wind turbines and offshore platforms will be located.
European site	Sites designated for nature conservation under the Habitats Directive and Birds Directive, as defined in regulation 8 of the Conservation of Habitats and Species Regulations 2017 and regulation 18 of the Conservation of Offshore Marine Habitats and Species Regulations 2017. These include candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation and Special Protection Areas.
Generation Deemed Marine Licence (DML)	The deemed marine licence in respect of the generation assets set out within Schedule 13 of the draft DCO.
Horizontal directional drilling (HDD)	A method of cable installation where the cable is drilled beneath a feature without the need for trenching.
HDD temporary working area	Temporary compounds which will contain laydown, storage and work areas for HDD drilling works.

Inter-array cables	Offshore cables which link the wind turbines to each other and the offshore electrical platforms, these cables will include fibre optic cables.
Jointing bay	Underground structures constructed at intervals along the onshore cable route to join sections of cable and facilitate installation of the cables into the buried ducts.
Landfall	The area (from Mean Low Water Springs) where the offshore export cables would make contact with land, and connect to the onshore cables.
Link boxes	Underground chambers within the onshore cable route housing electrical earthing links.
Meteorological mast	An offshore structure which contains metrological instruments used for wind data acquisition.
Mitigation areas	Areas captured within the onshore development area specifically for mitigating expected or anticipated impacts.
Marking buoys	Buoys to delineate spatial features / restrictions within the offshore development area.
Monitoring buoys	Buoys to monitor *in situ* condition within the windfarm, for example wave and metocean conditions.
National electricity grid	The high voltage electricity transmission network in England and Wales owned and maintained by National Grid Electricity Transmission
National Grid infrastructure	A National Grid substation, cable sealing end compounds, cable sealing end (with circuit breaker) compound, underground cabling and National Grid overhead line realignment works to facilitate connection to the national electricity grid, all of which will be consented as part of the proposed East Anglia TWO project Development Consent Order but will be National Grid owned assets.
National Grid overhead line realignment works	Works required to upgrade the existing electricity pylons and overhead lines (including cable sealing end compounds and cable sealing end (with circuit breaker) compound) to transport electricity from the National Grid substation to the national electricity grid.
National Grid overhead line realignment works area	The proposed area for National Grid overhead line realignment works.
National Grid substation	The substation (including all of the electrical equipment within it) necessary to connect the electricity generated by the proposed East Anglia TWO project to the national electricity grid which will be owned by National Grid but is being consented as part of the proposed East Anglia TWO project Development Consent Order.
National Grid substation location	The proposed location of the National Grid substation.
Natura 2000 site	A site forming part of the network of sites made up of Special Areas of Conservation and Special Protection Areas designated respectively under the Habitats Directive and Birds Directive.
Offshore cable corridor	This is the area which will contain the offshore export cables between offshore electrical platforms and landfall.
Offshore development area	The East Anglia TWO windfarm site and offshore cable corridor (up to Mean High Water Springs).
Offshore electrical infrastructure	The transmission assets required to export generated electricity to shore. This includes inter-array cables from the wind turbines to the offshore electrical platforms, offshore electrical platforms, platform link cables and export cables from the offshore electrical platforms to the landfall.

Offshore electrical platform	A fixed structure located within the windfarm area, containing electrical equipment to aggregate the power from the wind turbines and convert it into a more suitable form for export to shore.
Offshore export cables	The cables which would bring electricity from the offshore electrical platforms to the landfall. These cables will include fibre optic cables.
Offshore infrastructure	All of the offshore infrastructure including wind turbines, platforms, and cables.
Offshore platform	A collective term for the construction, operation and maintenance platform and the offshore electrical platforms.
Onshore cable corridor	The corridor within which the onshore cable route will be located.
Onshore cable route	This is the construction swathe within the onshore cable corridor which would contain onshore cables as well as temporary ground required for construction which includes cable trenches, haul road and spoil storage areas.
Onshore cables	The cables which would bring electricity from landfall to the onshore substation. The onshore cable is comprised of up to six power cables (which may be laid directly within a trench, or laid in cable ducts or protective covers), up to two fibre optic cables and up to two distributed temperature sensing cables.
Onshore development area	The area in which the landfall, onshore cable corridor, onshore substation, landscaping and ecological mitigation areas, temporary construction facilities (such as access roads and construction consolidation sites), and the National Grid Infrastructure will be located.
Onshore infrastructure	The combined name for all of the onshore infrastructure associated with the proposed East Anglia TWO project from landfall to the connection to the national electricity grid.
Onshore preparation works	Activities to be undertaken prior to formal commencement of onshore construction such as pre–planting of landscaping works, archaeological investigations, environmental and engineering surveys, diversion and laying of services, and highway alterations.
Onshore substation	The East Anglia TWO substation and all of the electrical equipment within the onshore substation and connecting to the National Grid infrastructure.
Onshore substation location	The proposed location of the onshore substation for the proposed East Anglia TWO project.
Platform link cable	Electrical cable which links one or more offshore platforms. These cables will include fibre optic cables.
Safety zones	A marine area declared for the purposes of safety around a renewable energy installation or works / construction area under the Energy Act 2004.
Scour protection	Protective materials to avoid sediment being eroded away from the base of the foundations as a result of the flow of water.
Transition bay	Underground structures at the landfall that house the joints between the offshore export cables and the onshore cables.
Transmission DML	The deemed marine licence in respect of the transmission assets set out within Schedule 14 of the draft DCO.

1 Introduction

1. This document presents the Applicants' comments on Natural England's (NE) Deadline 2 submissions (REP2-052 to REP2-058). This includes the Applicants' responses to NE's comments on the Applicants' and other Interested Parties' Responses to Examining Authority (ExA) Questions.

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

1.1 Outline SPA Crossing Method Statement (NE Appendix C2b REP2-053)

Reference	NE Comment	Applicants' Response
1	Natural England welcomes the inclusion of the conservation objectives within the plan, and note that impacts are considered within HRA [APP – 044]. However we believe further information is required to rule out no adverse effect beyond all reasonable scientific doubt. Especially in relation splitting the SPA in two for at least one breeding season per project.	The Applicants assume this comment is in direct response to an open trench Special Protection Area (SPA) crossing scenario and note the temporary timeframes associated with an open trench SPA crossing (anticipated to be completed within a five month window outside of the breeding bird season, as stated within ***section 2.5*** of the ***Outline SPA Crossing Method Statement*** (REP1-043)). A comprehensive assessment of potential impacts upon the qualifying features and integrity of the Sandlings SPA arising from an open trench SPA crossing is presented within the Habitats Regulations Assessment (HRA) (APP-043). This assessment concludes that, for each Project alone, in-combination with each other and in-combination with other known developments, there would be no adverse effect on the integrity of the SPA. It is considered that the assessment and information presented within the HRA and its appendices provides sufficient information to arrive at these conclusions. The Applicants will continue to liaise with Natural England throughout and beyond the Examination as required, to ensure that the final SPA Crossing Method Statement contains sufficient information regarding the impacts and mitigation measures adopted with an open trench SPA crossing solution.

Reference	NE Comment	Applicants' Response
2	Natural England notes the Applicant's Deadline 1 Appendix 6 to ExA [REP01 - 090] questions included the Order limit for both 'Trenchless' and 'Open Trench' operations. On reviewing that document it should be noted that whilst the Order Limit is wider for trenchless techniques there will be no surface impact on the SPA supporting habitat. And that the Open trench technique will dissect the SPA in two and this may impact wider ecosystem function. In addition this disruption could stretch over multiple breeding seasons and beyond the installation, so every effort should be made to avoid, reduce and mitigate impacts.	The Applicants refer to their response to reference 1. Furthermore, whilst it is noted that an open trench SPA crossing solution will result in direct habitat loss within the SPA, it should be noted that no loss of functioning habitat for SPA qualifying features would occur, based on known distributions of the two qualifying species (nightjar and woodlark) within the SPA. The Applicants also emphasise that the duration of potential unmitigated indirect disturbance impacts associated with a trenchless crossing solution would persist for longer (i.e. potentially covering more than one breeding season). Any open trench within the SPA crossing would be reinstated as soon as practicable following completion of the works and before commencement of a five year habitat management period. It is also noted that, should both Projects be consented and constructed sequentially, the Applicants will install the onshore cable ducts for the second project in parallel with the installation of the onshore cables for the first project, as per the ***Project Update Note*** submitted to the Examination at Deadline 2 (REP2-007).
3	Natural England would welcome more detail on open cut trench operations within the SPA including all plant and machinery required for excavating and backfilling within the SPA crossing and the SPA buffer. Natural England notes that the further detail will be provided prior to construction in the final version of this plan. We advise that impacts should be considered as much as possible during the consenting phase and by not considering this in more detail now, some yet to be identified likely significant effect, may require a further HRA. The further HRA would need to be undertaken by the local	The Applicants do not agree that 'some yet to be identified likely significant effect, may require a further HRA'. The Applicants have assessed the worst case within the Environmental Statement (ES) and Information to Support Appropriate Assessment report (APP-043) and therefore any works undertaken will fall within the envelope assessed should therefore not give rise to likely significant effects that have not yet been considered. Specific detail on the equipment to be used is not available at this stage, but the specifications of plant and the measures with which

Reference	NE Comment	Applicants' Response
	planning authority as the regulator for the DCO prior to construction to ensure that there remains no adverse effect on integrity from the proposed works.	their operation must comply will be set out within the final Code of Construction Practice. ***Paragraphs 46-53*** of the ***Outline SPA Crossing Method Statement*** submitted to the Examination at Deadline 1 (REP1-043) include measures which will be adopted specifically for works associated with the SPA crossing. The Applicants note that vehicles associated with construction will not be used within the SPA during the seasonally restricted period and therefore direct impacts on the SPA qualifying species of nightjar and woodlark will be avoided.
4	As a statutory undertaker The Applicant has legislative obligations to not just maintain, but also to enhance the designated site features. Therefore we advise that true enhancement should last beyond the 5 years post installation which is currently proposed and consideration should be given to reinstating the site post installation to provide a better ecological value than it currently has.	The Applicants consider that the 5-year management period for Work No. 12A specified within the ***Outline SPA Crossing Method Statement*** (REP1-043) is sufficient to establish a functional habitat for nightjar and turtle dove (where required), providing ample opportunity for ecological enhancements to be realised.
5	Natural England notes that two of the proposed mitigation measures for supporting 'open trench' installation may not be true mitigation when compared to the 'trenchless' technique. Especially if works extend into subsequent breeding seasons as suggested they might. In addition, removal of 24hr working is more of a local residence issue than an ecological one as the 24hr working is only required for certain parts of the work and measures can be put in place to avoid/mitigate disturbance to interest features of the site.	The Applicants will continue to engage with Natural England throughout the Examinations to understand and address this matter.

Reference	NE Comment	Applicants' Response
6	Natural England advises that more detail is required regarding habitat reinstatement and monitoring within the SPA crossing. Whilst we recognise that the Applicant has provided more detail within the crossing method statement of what will be planted; the justification as to why and what function they will provide and over what time frame is still required. There is no consideration of how long the habitat will take to recover and what monitoring will be undertaken	The Applicants note that the mitigation will provide functional habitat for breeding nightingale (Work No. 12A) and turtle dove (Work No. 14). Preparation of Work No. 12A will occur during the non-breeding season in the calendar year prior to the SPA crossing works commencing and will involve the thinning of scrub and bracken removal on rotation. This is considered by the Applicants to be a reasonable timeframe for the mitigation area to achieve a suitable level of ecological functionality for nightingale prior to the commencement of construction of the SPA crossing. The mitigation area will continue to improve during the construction period by virtue of the management measures implemented. The Applicants will update the ***Outline SPA Crossing Method Statement*** (REP1-043) to include provision of annual monitoring of the mitigation provided within Work No. 12A in order to inform management and maintenance measures during the 5-year management period. The Applicants consider that a robust assessment has been undertaken for the SPA crossing, and the need for the final SPA Crossing Method Statement to be approved by the relevant planning authority in consultation with NE, provides a robust mechanism to ensure that the final mitigation measures adopted reduce impacts and enhance biodiversity within the SPA.

1.2 Ecological Enhancement Clarification Note (NE Appendix C4 REP2-054)

Reference	NE Comment	Applicants Comments
1	Following review of this clarification note, Natural England agrees that net gain is not formally required for these NSIP applications, but we encourage the Applicant as a statutory undertaker to undertake their duties, and actively seek out opportunities for enhancement and improvements to ecological connectivity in the countryside around the application sites.	The Applicants have carefully evaluated the potential impacts of the Projects on onshore ecology and ornithology during the iterative design of the Projects. The response to those findings has ensured that if impacts cannot be avoided then appropriate mitigation or enhancement has been proposed in line with the EIA Regulations and the policy requirements set out in the relevant National Policy Statements and in particular the key sections of EN-1. The Applicants have sought the necessary land and rights to deliver those commitments. The Applicants consider they have demonstrated their commitment to making ecological enhancement and improvements associated with the Projects within the ***Ecological Enhancement Clarification Note*** submitted to the Examinations at Deadline 1 (REP1-035).
2	We note that all habitats are being replaced, with the loss of 310 units and 229 units within the site recorded as being of low ecological value. Where possible the ecological value should be improved.	The Applicants would note that 20.36 hectares (71.39 habitat units) and 85.59km (511.51 hedge units) are being created at the onshore substation location (Table 1 and Table 3 of the ***Ecological Enhancement Clarification Note*** (REP1-035)). As stated in the ***Project Update Note*** (REP2-007) submitted to the Examinations at Deadline 2, the footprints of the onshore substations are to reduce. This will negate the need for some woodland removal and allow for further woodland planting. Further additional areas of planting have also been identified for inclusion in the updated ***Outline Landscape and Ecological Management Strategy***

Reference	NE Comment	Applicants Comments
		(*OLEMS)* (APP-584) being submitted to the Examinations at Deadline 3.
3	We encourage the delivery of the extra 70 units (as detailed in paragraphs 4.30 and 30) and would welcome more information on how it is intended to incorporate these extra areas of habitat creation into the enhancement strategy and ensure the longevity of the enhancement.	Noted. As stated in the ***Project Update Note*** (REP2-007) submitted to the Examinations at Deadline 2, the footprints of the onshore substations are to reduce. This will negate the need for some woodland removal and allow for further woodland planting. Further additional areas of planting have also been identified for inclusion in the updated ***OLEMS*** (APP-584) being submitted to the Examinations at Deadline 3.
4	In paragraph 23, it is stated that there are opportunities to improve connectivity between habitats. Natural England would welcome more information on how the Applicant intends to incorporate these enhancements into the strategy.	Noted. As stated in the ***Project Update Note*** (REP2-007) submitted to the Examinations at Deadline 2, the footprints of the onshore substations are to reduce. This will negate the need for some woodland removal and allow for further woodland planting. Further additional areas of planting have also been identified for inclusion in the updated ***OLEMS*** (APP-584) being submitted to the Examinations at Deadline 3. The Applicants note that within the Outline Landscape Mitigation Plan new hedgerows will be planted with a native woody species mix. Gaps in existing hedgerows to be retained will be infilled with woody and fruit-bearing species. Further tree planting to establish woodland in the longer term will enhance the connection between Laurel Covert and Grove Wood. Where there is currently arable land immediately surrounding the onshore substation locations, these will be sowed

Reference	NE Comment	Applicants Comments
		with species rich grassland mixes as well as the addition of two Sustainable Urban Drainage Systems (SuDS), with marginal planting. These measures are anticipated to enhance connectivity in the vicinity of the onshore substations.
5	The Management and monitoring plan will need to include all enhancement sites, including all areas created to improve ecological connectivity. The plan should explain how all areas of habitat creation or enhancement will be maintained, and should include the type of management and the timings of the management and monitoring programme.	The opportunities for ecological enhancement to be provided by the Projects are reflective of the various measures proposed within the Environmental Statement (ES) and the ***OLEMS*** (APP-584). The final Ecological Management Plan (EMP) will be produced in accordance with the OLEMS and the Applicants will explain within the EMP how habitat creation and enhancement measures will be managed and maintained, including the timescales for the proposed measures.

1.3 Onshore Ecology Clarification Note (NE Appendix C5 REP2-055)

Reference	NE Comment	Applicants Comments
Summary	Natural England welcomes the onshore ecology clarification note. However, we believe that further information needs to be provided at the time of consent before we can support any conclusions made as set out in our detailed comments below.	The Applicants will work with NE to ensure that, where possible, their concerns are addressed prior to consent.

Reference	NE Comment	Applicants Comments
Badgers		
1	Following review of this clarification note, Natural England agrees that net gain is not formally required for these NSIP applications, but we encourage the Applicant as a statutory undertaker to undertake their duties, and actively seek out opportunities for enhancement and improvements to ecological connectivity in the countryside around the application sites.	The Applicants have carefully evaluated the potential impacts of the Projects on onshore ecology and ornithology during the iterative design of the Projects. The response to those findings has ensured that if impacts cannot be avoided then appropriate mitigation or enhancement has been proposed in line with the EIA Regulations and the policy requirements set out in the relevant National Policy Statements and in particular the key sections of EN-1. The Applicants have sought the necessary land and rights to deliver those commitments.
Hairy Dragonfly		
2	As explained in the report, hairy dragonfly (Brachytron pratense) are associated with the Leiston-Aldeburgh Site of Special Scientific Interest (SSSI). Natural England requested further information on any potential effects on this species due to the planned river crossing. We note that, as it is intended to entirely avoid the bird breeding season, this will incorporate avoidance of the time when the hairy dragonfly is active, between May and July. We also understand that, as the trenchless technique will be used, this will avoid direct effects on the Leiston-Aldeburgh SSSI. However, we consider that it is important to ensure that all aspects of the hairy dragonfly's (Brachytron pratense) life cycle have been considered. This species remains in the larval stage for approximately 2 years. When it reaches the	The Applicants note that the onshore landfall entry / exit pit will be located within Work No. 8, which at the time of the ***Extended Phase 1 Habitat Survey*** (APP-277) was recorded as being predominantly arable land. Arable land is not considered a likely habitat for the larval stage of this species given their required habitat is well vegetated unpolluted waterbodies. Given current intrusive farming practices (i.e. ploughing), the area within which the onshore landfall entry / exit pit will be located is currently subjected to regular habitat disturbance. In combination with the absence of well vegetated unpolluted waterbodies, and the commitment to the embedded mitigation measures set out within ***Table 22.4***, ***Chapter 22*** (APP-070), the area comprising Work No. 8 is not considered suitable to accommodate hairy dragonfly larvae. On completion of the Hundred River crossing, subsoil and topsoil removed at this location will be reinstated and the riverbank reprofiled and replanted to an agreed specification. At a minimum the land area associated with the crossing will be reinstated to its pre-construction condition unless otherwise agreed with relevant

Reference	NE Comment	Applicants Comments
	final stage of development it crawls out and can be found amongst vegetation on the banks of its water body, where it is very susceptible to injury for a short while until it emerges as the adult. Therefore, although there is protection for the adult dragonfly within the bird mitigation, we also need to know whether any aspect of the works are likely to affect the species at other stages of development, either while within the water body or on the bank (note the species may well be using habitats outside the SSSI), either directly or indirectly. We recommend that further information is provided on potential effects to these aspects of the species' development cycle.	planning authority. Furthermore, buffer strips of vegetation will be retained adjacent to the Hundred River and Friston Watercourse, where possible. Where surface vegetation has been removed, it will be reseeded. Implementation of the measures referred to above will be supervised by the Ecological Clerk of Works (ECoW).
Air Quality - NoX		
3	Natural England understands that an updated Air Quality Clarification Note, which will include a quantitative assessment, will be submitted to the Examinations at Deadline 3. Natural England agrees that this assessment will be necessary so that effects to all important receptors can be fully understood.	Noted. The Applicants have submitted the ***Air Quality Deadline 3 Clarification Note*** to the Examinations at Deadline 3 (document reference ExA.AS-15.D3.V1).
4	Furthermore we note that the Air Quality Clarification Note states in Paragraph 14 that additional assessment is required by an ecologist to determine whether any significant impacts may be experienced at affected habitats. However, following a review of the section on air quality in the Ecology	The Applicants have provided further clarification on this matter within the ***Onshore Ecology Deadline 3 Clarification Note*** submitted to the Examinations at Deadline 3 (document reference ExA.AS-14.D3.V1).

Reference	NE Comment	Applicants Comments
	Clarification Note, although it is clear that the three designated sites that have potential to be affected by changes in air quality have been listed correctly (the Sandlings Special Protection Area (SPA), Leiston- Aldeburgh SSSI and Sizewell marshes SSSI), it is not clear from this note which habitats within them are likely to be affected and why this is not likely to be significant.	
5	As discussed in the Ecology note, there appears to be a likely significant effect due to changes in air quality associated with these applications. We agree that habitats closest to the road will be most significantly affected, with the effect lessening the further away from the road, but this fact does not lessen the need for a review of potential effects to the designated sites.	The Applicants have provided further clarification on this matter within the ***Onshore Ecology Deadline 3 Clarification Note*** submitted to the Examinations at Deadline 3 (document reference ExA.AS-14.D3.V1).
6	In our view, in order to provide sufficient clarity on this matter, the Ecology Clarification note needs to be updated in order to provide further explanation of the locations of the designated sites in relation to the roads and furthermore to explain which habitats within these sites have potential to be affected by NoX pollution. It would also be useful to include a summary of site conditions and current pollution trends in this document i.e. whether NoX pollution is increasing or decreasing over time.	The Applicants refer to the following clarification notes submitted to the Examination at Deadline 3: • ***Air Quality Deadline 3 Clarification Note*** (document reference ExA.AS-15.D3.V1); and • ***Onshore Ecology Deadline 3 Clarification Note*** (document reference ExA.AS-14.D3.V1).
Impacts to Ecological Receptors as a result of Non-Road Mobile Machinery (NRMM)		

Reference	NE Comment	Applicants Comments
7	In paragraph 30, it is stated that, 'due to the linear nature of the works area, the number of plant items active in the vicinity of receptors for each activity along the length of each section of cable route is not anticipated to be in excess of that required on a 'standard' construction site'. We acknowledge that, if the project is carried out in a linear, logical and sequential manner as described within this note, it is less likely that more NRMM will be necessary across the construction sites.	Noted.
8	In Paragraph 42 it is stated that there will not be significant pollution at the crossing point due to the seasonal restriction. It is not clear why this would reduce pollution, given that using the trenchless technique requires works for a longer period than the open trenching technique i.e. a year rather than five months, and with 24 hour construction. We would welcome further explanation on this within the next submission of the air quality clarification note, along with further information on effects to ecological receptors as discussed above.	Paragraph 42 of the ***Onshore Ecology Clarification Note*** submitted to the Examinations at Deadline 1 (REP1-023) states that *"it is considered unlikely that such woks would lead to significant increases in pollutant concentrations and associated increases in nutrient nitrogen or acid deposition in the vicinity of the SPA"*. The Applicants have provided further explanation on this in the ***Onshore Ecology Deadline 3 Clarification Note*** submitted to the Examinations at Deadline 3 (document reference ExA.AS-14.D3.V1).
9	We note that it is not possible to provide at this time a full assessment of the effects of NRMM on Leiston-Aldeburgh SSSI as the exact locations of the landfall will not be known until the detailed design of the project stage. But as much information as possible should be provided at the consenting phase. Natural England will need to review any new information/assessment as soon as it becomes available.	The Applicants have provided a quantitative assessment of NRMM emissions based on a worst-case conservative assumption of plant locations within the landfall area. This has been included within the ***Air Quality Deadline 3 Clarification Note*** submitted to the Examinations at Deadline 3 (document reference ExA.AS-15.D3.V1).

1.4 Cumulative and In-Combination Collision Risk Update (NE Appendix A9 REP2-052)

Reference	NE Comment	Applicants Comments
Summary		
a	During previous Offshore Windfarm (OWF) examinations Natural England has provided advice regarding our concerns about predicted level of cumulative impacts on North Sea seabirds. These include EIA great black-backed gull at EA3 and Vanguard, Flamborough and Filey Coast (FFC) SPA kittiwake at Hornsea 2 and Vanguard and Alde-Ore Estuary SPA lesser black-backed gull (LBBG) at Vanguard, which were subsequently consented. These concerns have intensified during the recent Norfolk Boreas offshore wind farm (OWF) examination and the addition of East Anglia One North (EA1N) and East Anglia Two (EA2) totals. Therefore, Natural England considers that without project-level mitigation being applied to all relevant projects coming forward, there is a significant risk of large-scale impacts on seabird populations. We recommend that for these projects and all relevant future projects located in the North Sea, raising turbine draught height should be considered as standard mitigation practice. Where appropriate relevant proposals should include this measure in order to minimise their contributions to the cumulative/in-combination collision totals by as much as is possible. For example the Norfolk OWF NSIPs have committed to raising draft height to a minimum of 35m above MHWS for turbines	The southern North Sea is not physically uniform across its extent and therefore the design for one project may not be appropriate for another. The project design of each offshore windfarm is unique and based upon, amongst other factors, site specific parameters such as ground conditions and water depth. Given that site-specific conditions are not confirmed until post-consent and that turbine technology is evolving quickly there is a need to retain flexibility within the Rochdale Envelope in order to maintain a viable project. The Applicants have provided a rationale in the ***Offshore Commitments*** document (document reference ExA.AS-21.D3.V1) at Deadline 3 which explains the limits on the Projects with regard to changes in draught height of turbines.

Reference	NE Comment	Applicants Comments
	of up to and including 14.6MW and a minimum of 30m above MHWS for turbines of 14.7MW and above – the Norfolk Vanguard DCO as made by the SoS is based on these draught heights[1]. Therefore we continue to advise that raising the air draft height should be explored further by the Applicants to beyond 24m.	
b	We note that the Non-Material Change (NMC) Applications at East Anglia THREE (accepted in July 2020) and East Anglia ONE (application to be submitted in early 2021) form part of the Applicant's proposed reduction. However, more clarity is required on whether these reductions are legally binding.	The Applicants' case does not rely on the NMCs, as the Applicants maintain the position from the Application that the effects of the Projects are minimal and well below those considered *de minimis* by the Secretary of State in recent decisions. Rather the NMCs are provided to reduce uncertainty in the in-combination position. The East Anglia THREE NMC application[2] requests a reduction in the maximum number of wind turbines from 172 to 121 which has been incorporated into the updated cumulative and in-combination totals in REP1-047. The NMC for East Anglia ONE will revise the number of turbines from the consented maximum of 150 to 102, the latter being the number which have been installed. No other turbine parameters will be amended. Given that these NMC applications relate to a reduction in the wind turbine parameter envelopes, there is a reasonable expectation that they will be accepted. The Applicants have taken on board NE considerations that legal certainty around as built versus consented collision risk estimates is required which the granting of these NMC applications will provide. Furthermore, it is likely that by the time the SoS is due to

[1] Norfolk Vanguard Development Consent Order as made by the Secretary of State, available from: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010079/EN010079-004281-Norfolk_Vanguard_DCO_SoS_1_July_2020.pdf
[2] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010056/EN010056-002456-EA3_NMC%20Report_rev1_July2020_004_clean_final.pdf

Reference	NE Comment	Applicants Comments
		make a decision on the Projects in Autumn 2021 the NMC applications for East Anglia THREE and East Anglia ONE will also be with the SoS for determination. The Applicants therefore consider that it is sensible and pragmatic to incorporate them into the cumulative and in-combination collision risk totals for the Projects.
c	We note and welcome the changes to the apportioning methodology for the Alde-Ore Estuary Special Protection Area (SPA) as recommended by Natural England during discussions with the Applicant.	Noted
1. Alde-Ore SPA lesser black-backed gull (LBBG): Apportioning methodology		
1	We welcome that the Applicant proposes using a range of breeding season apportionment values for LBBGs at the Alde-Ore Estuary SPA in the assessments (i.e. 10-30% for East Anglia One North and 20-50% for East Anglia Two). However if a single figure is used for the assessment (e.g. in the in-combination assessment), due to the uncertainty, the upper values of these ranges should be considered.	Noted
2	In the submission document [APP-043], the Applicant had previously applied a generic rate of 30% apportionment to the total breeding season collision predictions from all the wind farms within 141km of the Alde-Ore to apportion total in-combination collisions in the breeding season. We consider this to be an overly simplistic approach, as it does not consider the distance of each of these wind farms from the Alde-Ore SPA, the other colonies within foraging range	The Applicants acknowledge this comment and have updated the apportioning method, as noted in the next NE comment.

Reference	NE Comment	Applicants Comments
	of each of these offshore wind farms and the size of each of the other offshore wind farms etc. This approach would potentially overestimate the contribution of some of the other projects and underestimate the contribution of others. The extent to which this underestimation of values is cancelled out by any overestimated values in the calculated overall total is unknown.	
3	In REP1-047 the Applicant has used the SNH apportionment method[3] to calculate breeding season apportionment rates for the relevant offshore wind farms. We welcome that the Applicants have considered this approach and note that the SNH tool uses the term 1/distance[2] as a weighting factor. This approach means that for a colony of a given size, the further it is away from the development site, the lower its overall weighting factor will be and so too will its estimated contribution to the birds present at the development sites. However, the underlying assumption here is that the likelihood of an individual travelling 1km from its colony or 181km (in the case of maximum foraging range of LBBG) is identical, such that the density of birds declines with increasing distance from the colony solely because within	The Applicants acknowledge that the apportioning method is based on the assumptions noted by NE, however in the absence of more detailed data with which to estimate relative connectivity among colonies and windfarms this assumption (of linear decay in foraging activity) is considered a reasonable approach to use. It should also be noted that work undertaken for Marine Scotland by the Centre for Ecology and Hydrology on this topic[5] has found that (for species with more data available) the SNH method applied here produces very similarly results to those obtained using more complicated decay functions. Consequently, the apportioning results are expected to be relatively insensitive to this assumption.

[3] https://www.nature.scot/sites/default/files/2018-11/Guidance%20-%20Apportioning%20impacts%20from%20marine%20renewable%20developments%20to%20breeding%20seabird%20populations%20in%20SPAs_0.pdf
[5] https://www.gov.scot/binaries/content/documents/govscot/publications/factsheet/2019/11/marine-scotland-topic-sheets-renewables/documents/statisitcal-tool-to-attribute-seabirds-at-sea-to-their-breeding-colonies-28-july-2020/statisitcal-tool-to-attribute-seabirds-at-sea-to-their-breeding-colonies-28-july-2020/govscot%3Adocument/Attribute%2Bseabirds%2Bat%2Bsea%2Bto%2Bbreeding%2Bcolonies.pdf

Reference	NE Comment	Applicants Comments
	each concentric 1km ring around a colony the area within it will increase as a linear function of its distance from the colony. This fails to take account of the fact that seabirds are central place foragers that must forage away from their nest, but return to it to feed their chicks. This places strong advantages in terms of reducing both time spent away from the nest and energy expended in foraging if birds can forage as close to their colony as possible. As such, the likelihood of each individual foraging closer to their colony than further away will not be equal and so the density of birds is likely to decline more rapidly with increasing distance from a colony than the simple geometric relationship based on the square of distance would suggest. However, the approach now taken by the Applicant does consider the distance of each of the relevant offshore wind farms from the Alde-Ore SPA and the other colonies within foraging range of the wind farms, this is more appropriate than the blanket apportionment approach previously taken (as per our advice at Deadline 4 of the Norfolk Boreas examination[4]).	
4	Natural England agrees that assuming a maximum foraging distance of 181km does represent a reasonable balance of the current evidence.	Noted

[4] Natural England (2020) Norfolk Boreas Offshore Wind Farm, Deadline 4: Natural England's comments in relation to the Norfolk Boreas updated offshore ornithological assessment, submitted at Deadline 2 [REP2-035]. Available from: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-001629-DL4%20-%20Natural%20England%20-%20Updated%20Ornithology%20Advice.pdf

Reference	NE Comment	Applicants Comments
2. Collision modelling update		
5	**2.1 Non-Material Changes (NMC)** It is not clear whether the smaller turbines have been ruled out from the East Anglia Three project envelope. If the previous worst case scenario remains a possibility and the change is not legally secured then it would not be appropriate to update the collision predictions included in the cumulative totals based on the reduced number of turbines.	The East Anglia THREE NMC application[6] requests a reduction in the maximum number of wind turbines from 172 to 121 which has been incorporated into the updated cumulative and in-combination totals in REP1-047. The conclusions of the updated collision risk modelling for the updated East Anglia THREE design envelope show that although wind turbine parameters such as rotor diameter and tip height are slightly increasing, the reduction in the number of turbines results in a reduced collision risk of between 18% (kittiwake) and 11% (herring gull and black blacked gull) compared with the consented design. Therefore, the previous worst case scenario does not remain a possibility under the NMC application and granting of the NMC application (as is anticipated for the reasons stated in Point b above) would ensure that this is legally secured.
6	For East Anglia ONE it is not clear if there is legal certainty that the as built project will not be expanded upon at a later date up to the full MW capacity. Therefore, it is perhaps premature to be suggesting the figures in the cumulative/in-combination totals are updated on this basis.	See response to Point b above.
7	**2.2 Draught height increases at East Anglia ONE North and East Anglia TWO** Whilst we welcome the Applicants proposed raising of the draught height, as noted in the summary above, Natural	See response to Point a above.

[6] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010056/EN010056-002456-EA3_NMC%20Report_rev1_July2020_004_clean_final.pdf

Reference	NE Comment	Applicants Comments
	England's advice is that all projects should minimise their contributions to the cumulative/in-combination collision totals by as much as is possible. Therefore, further evidence should be provided by The Applicant as to why the draught height for East Anglia One North and East Anglia Two cannot be further increased.	
3. Updated cumulative and in-combination collisions		
8	Natural England welcomes that the Norfolk Boreas Deadline 8 collision risk estimates have been taken as the new common position for all other projects. However, given the questions raised above regarding the NMCs and whether these can be/are legally secured, this question will need to be addressed before we can be in a position to accept these figures. Also we note that the figures currently included for Hornsea 4 are those from the PEIR, but the application is due to be submitted in spring 2021. These figures and the methodologies to produce them are therefore subject to change and have an element of uncertainty associated with them.	See response to Point b above regarding legal certainty around NMCs. Regarding Hornsea 4 PEIR figures being updated, if they are submitted at a point within the Examination period for the Projects where it is reasonable to incorporate them within the final assessment then the Applicants would seek to do this. However, given that the Examination period is due to end on April 6th with a final Deadline (Deadline 9) on that day, the Applicants consider that these final figures would need to be available in February so that they can be incorporated into an updated assessment to be submitted at Deadline 7 (March 4th). This would then allow NE to comment at Deadline 8 and the Applicants to address any comments for Deadline 9.
9	We also note that, with the exception of kittiwake from the Flamborough and Filey Coast SPA, the Hornsea Project Three Applicant has not provided updated collision figures for the revised design parameters for any other key species for cumulative/in-combination collision assessments (gannet, LBBG, herring gull or great black-backed gull), and	The Applicants also recognise this uncertainty however note that they have taken a precautionary approach by using the figures from the Hornsea Three project (as per the commonly agreed position for Norfolk Boreas Deadline 8) which do not incorporate the design revisions which led to the reduction in kittiwake collision mortalities.

Reference	NE Comment	Applicants Comments
	therefore those values cannot be relied upon and hence an element of uncertainty remains regarding the Hornsea 3 figures.	
10	We welcome that the Applicants have presented cumulative/in-combination collision totals for each key species for both including and excluding Hornsea projects 3 and 4.	Noted
11	Natural England notes that the overall updates do not alter our overall conclusions and our advice at the end of the Boreas examination, which was as follows: • Flamborough & Filey Coast SPA kittiwake in-combination collision: there is an adverse effect on integrity (AEoI) on this feature due to in-combination collision mortality and that includes a contribution from Boreas - see our response to 5th round of EXA Q 5.8.6.2 available from: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-002408-DL14%20-%20NE%20-%20Response%20to%20WQ.pdf. • As the Boreas in-combination assessment included EA1N and EA2, the same advice applies. • Alde-Ore Estuary SPA LBBG in-combination collision: an AEoI cannot be ruled out for in-combo collisions for this feature - as the Boreas assessment included EA1N/EA2 advice applies again here.	The Applicants note NE advice however disagree on the conclusions reached. The Applicants do not consider that there would be an AEoI at the Flamborough and Filey Coast SPA or Alde-Ore Estuary SPA at the in-combination level. Additionally, the Applicants consider that cumulative impacts on kittiwake and GBBG would be minor adverse (not significant) for both species.

Reference	NE Comment	Applicants Comments
	• For EIA cumulative collisions, we concluded that it was not possible to rule out a moderate adverse impact on kittiwake and GBBG. Whilst the EA1N/EA2 Applicants' totals have been reduced due to the removal of Thanet Extension, updated figures for EA1N and EA2 and updated figures for EA1 and EA3 based on the NMCs (which may not be appropriate); the contributions from Hornsea 3 will most likely be greater than those reductions. Therefore, it follows that in these instances our advice will most likely remain unchanged.	

1.5 Outline *Sabellaria* Reef Management Plan (NE Appendix F5 REP2-056)

Reference	NE Comment	Applicants Comments
Summary		
1	DCO/dML condition: Natural England will provide further comment on the adequacy of how this plan is secured in the DCO/dMLs once the revised draft DCO/dML is submitted by the Applicant at Deadline 3.	Noted
2	Protection of *Sabellaria* spinulosa reef outside of designated sites: Please be advised that *Sabellaria spinulosa* reef of all quality is protected under Section 40 and 41 of the NERC Act 2006.	Noted

Reference	NE Comment	Applicants Comments
3	Please see Appendix F3 of our Relevant/Written Representations [RR-059] on generic advice on *Sabellaria* spinulosa reef. Our advice that impacts on *Sabellaria* spinulosa reef should be avoided, reduced, and mitigated inside and outside of designated sites remains unchanged.	Noted
4	Therefore we agree with the Applicant's proposals where impacts are unavoidable to reduce the impacts as much as possible and only go through lower quality areas of reef.	Noted
5	In addition monitoring of reef pre and post construction is welcomed to determine reef recoverability from OWF activities.	Noted
6	We would also encourage the Applicant to consider Net Gain options where there is the potential for *Sabellaria spinulosa* reef to be impacted by OWF construction works.	Once it is determined during the pre-construction phase if areas of *Sabellaria* reef are unable to be avoided, the Applicants will consider if enhancement measures are possible in consultation with the MMO and NE.
Detailed Comments		
1 [Paragraph 12]	Natural England notes that the applicant proposes to avoid *Sabellaria spinulosa* reef (where practicable) during UXO detonation with a suitable buffer. However, NE advices that the in principle buffers, depending on the size of the bombs and the known area of seabed impact, should be agreed now as part of the outline plan.	The footprint of craters created by detonation of UXO devices was estimated by Ordtek (2018)[7], this report states that "there is very limited open-source information available on crater sizes produced by detonations underwater and we are not aware of any comprehensive figures, tables or research on this subject." The Ordtek (2018) report presents estimates of theoretical crater sizes for the Norfolk Vanguard project for a range of UXO charge sizes, using two different methods and

[7] Ordtek (2018) Technical Note 01 Strategic Unexploded Ordnance (UXO) Risk Management – Seabed Effects During Explosive Ordnance Disposal (EOD) Available from https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010079/EN010079-001533-Appendix%2005.02%20Norfolk%20Vanguard%20Detonation%20Effects%20of%20UXO.pdf

Reference	NE Comment	Applicants Comments
		compares those results with field observations of craters resulting from UXO clearance at windfarms. The Norfolk Vanguard project has similar sea bed conditions to the Projects. The UXO in that area is of the type likely to be encountered anywhere in the Southern North Sea and indeed the report uses information from the UXO Risk Assessment for East Anglia ONE as one of its references. Therefore, this report is considered relevant and likely to be the best available evidence of the effects of UXO on the seabed. In the EIA, the Applicants assumed a maximum number of 80 UXO clearances with a maximum UXO size of 700kg (net explosive quantity (NEQ)) see **Chapter 11 Marine Mammals, Table 11.2** (APP-059). Ordtek (2018) also use a maximum of 700kg NEQ device in their estimates for crater footprint, which gives a crater diameter of 21m[8] (giving an area of approximately 346m^2 or 0.0346ha per crater). The Applicants therefore consider that for all sizes of UXO a precautionary buffer of 50m is likely to be used and this will be reflected in an updated version of the ***Sabellaria Reef Management Plan*** (REP1-044).
2 [Paragraph 13]	Whilst we assume it is a given that where micrositing is successful there will be no requirement for cable protection in an area of reef it would be helpful to discuss for the outline plan to make clear the intention for the use of cable protection within area areas of reef where avoidance isn't possible. Noting that NE's preference would be for the use of cable protection to be avoided in these areas.	Cables would be buried in all areas where ground conditions permit or where there is no interaction with third-party cables. *Sabellaria* reef that is unable to be avoided will likely be low quality reef where the underlying and adjacent sediment is of a sandy nature and where therefore cable burial is likely to be possible. If, during the design stage it is determined that cable protection within areas of *Sabellaria* reef is required, the Applicants would discuss the extent required and the specific areas where it was planned to be installed with the MMO and NE to seek

[8] For the purposes of this assessment we have used the worst case estimate (i.e. Table 7.1 in Ordtek, 2018) rather than field observations as the field observations data were from smaller devices than 700kg NEQ

Reference	NE Comment	Applicants Comments
		agreement on the most appropriate way forward. However, the Applicants would aim to avoid installing cable protection within areas of *Sabellaria* reef.
3 [Paragraph 14]	We are noting as with point 1 above that decisions are being deferred until post consent. However we believe that in principle discussions could happen now based on the East Anglia ONE installation.	The Applicants are considering the application of a 50m buffer from the extent of a *Sabellaria* reef in respect of all works. However, the Applicants would like to retain the ability to discuss reef buffer requirements on a case by case basis during the pre-construction period, where for example the proximity of several reefs makes micrositing with a minimum 50m buffer challenging. This will be reflected in an updated *Sabellaria* Reef Management Plan to be submitted later within the Examination.
4 [Table 1.1]	It should be note that in consultation with the MMO should also include 'and the relevant SNCB'.	Noted, this will be included within the updated outline plan submitted at Deadline 4.
5 [Table 1.1]	Point 5. How will it be ensured that proposals for UXO and cable installation mitigation will be aligned?	The pre-construction geophysical survey and ground-truthing will be undertaken to determine the cable route and this will identify potential UXO of relevance to the selected route. UXO clearance will only be required where UXO are found within approximately 25m of the cable route. UXO clearance is a health and safety requirement of the cable installation (where UXO are detected), therefore it will be an integral part of the consideration of these works.
6 [section 1.7.2]	Please note that Natural England's advice is that all reef is protected and should therefore be avoided.	As previously stated, reef will be avoided as far as practicable.
7 [section 1.7.2]	Please note that the adoption of The Wash 'core' reef approach has been unsuccessful for other projects within designated sites i.e. Norfolk Boreas and Vanguard due to limited data sets and over a sufficient timeframe. Therefore it is unlikely to be achievable for this project	Noted. The Applicants will continue discussions with NE post consent on the most suitable approach, should this be necessary, incorporating lessons learnt from projects which are likely to enter construction before the Projects.

1.6 Natural England's comments on Habitat Regulations Assessment Appendix 2 – Information to Support AA Report - Screening Matrices Submitted at Deadline 1 [REP1-017] (NE Appendix F6 REP2-057)

Reference	NE Comment	Applicants Comments
Summary		
1	In providing this response Natural England has reviewed the Habitat Regulations Assessment Appendix 2 – Information to Support AA Report - Screening Matrices Submitted at Deadline 1 [REP1-017] and has no further comments in relation to terrestrial designated sites.	Noted
2	However, Natural England wishes to highlight that some features for Offshore Special Protected Areas (SPAs) are incorrect which we have set out in our detailed comments below.	Noted, see the Applicants' responses below.
3	In addition, we wish to reserve the right to make further comments on the screening matrices relating to marine SACs once we have completed our full assessment of the 'Information to Support Appropriate Assessment - Addendum for Marine Mammals' [REP1-038] document submitted at Deadline 1.	Noted
Detailed Comments		
1	**Alde-Ore Estuary SPA/Ramsar**: Natural England notes that a seabird assemblage is not a qualifying feature of the SPA. We suggest that the SPA features and the Ramsar features are listed separately.	Seabird assemblage and footnotes '(i)' and '(h)' included in error and have now been deleted (see document reference: 5.3.2). The SPA and Ramsar features have been provided in a combined screening matrix for the site since these share features and therefore this approach reduces repetition of the same information.

Reference	NE Comment	Applicants Comments
		Therefore, the Applicants do not consider that it is necessary to have separate screening matrices for the SPA and Ramsar features as these are all already captured within the combined table.
2	**Coquet Island SPA**: Natural England notes that in addition to Roseate tern, Arctic tern, common tern and Sandwich tern a seabird assemblage is also a qualifying feature of this site and should be considered, see: https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9006031&SiteName=coquet&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=4&SiteNameDisplay=Coquet%20Island%20SPA With regard to the seabird assemblage feature (which includes puffin) we would advise that there is an impact pathway in the non-breeding season (even if there is no impact pathway in the breeding season), due to the potential for all three auks to winter in the North Sea. Although Natural England has not challenged the Applicant's decision to screen out this SPA, we recognise that an argument could be made to screen this feature in for further assessment.	The Applicants note that in response to ExA q 1.2.6 NE said: *"Natural England are satisfied with the HRA Screening Exercise".* Seabird assemblage feature has been added to the screening matrix for this site. While there is the potential for nonbreeding season connectivity with this SPA for species which disperse from their colonies across large areas of the North Sea, given the size of the breeding populations (guillemot: 23,500 pairs; razorbill: 286 pairs; puffin: 40,000 pairs) relative to their respective biogeographic populations with connectivity to the UK (guillemot: 4,125,000, i.e. 1%; razorbill: 1,707,000 i.e. 0.03%; puffin: 11,840,000, i.e. 0.3%) the likelihood of effects has been deemed negligible and the seabird assemblage feature has therefore been screened out of further assessment.
3	**Farne Islands SPA**: We note that in addition to Arctic tern, common tern and Sandwich tern, the following are also qualifying features of this site and should be included in the screening matrix table for this site: Roseate tern, guillemot and a seabird assemblage – see: https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9006021&SiteName=farne&SiteNameDisplay=Farne Islands	The Applicants note that in response to ExA q 1.2.6 NE said: *"Natural England are satisfied with the HRA Screening Exercise".* While there is the potential for nonbreeding season connectivity with this SPA for species which disperse from their colonies across large areas of the North Sea, given the size of the breeding populations (guillemot: 23,500 pairs; razorbill: 286 pairs; puffin: 40,000 pairs) relative to their respective biogeographic populations

Reference	NE Comment	Applicants Comments
	SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=5&HasCA=1 With regard to the auk features of this site (guillemot and the seabird assemblage feature, which includes razorbill and puffin) we would advise that there is an impact pathway in the non-breeding season (even if there is no impact pathway in the breeding season), due to the potential for all three auks to winter in the North Sea. Although Natural England has not challenged the Applicant's decision to screen out this SPA, we recognise that an argument could be made to screen this feature in for further assessment.	with connectivity to the UK (guillemot: 4,125,000, i.e. 1%; razorbill: 1,707,000 i.e. 0.03%; puffin: 11,840,000, i.e. 0.3%) the likelihood of effects has been deemed negligible and the seabird assemblage feature has therefore been screened out of further assessment.
4	**Flamborough and Filey Coast SPA**: We note that puffin is not a qualifying feature of this site in its own right, but is a named component of the seabird assemblage, which is a qualifying feature of the site and should be assessed. As a Likely Significant Effect (LSE) cannot be ruled out for collision or displacement impacts alone or in-combination for the other qualifying features (which are also components of the assemblage (kittiwake and gannet for collision; gannet, guillemot and razorbill) it follows that an LSE cannot be ruled out for the assemblage feature also.	An assessment of the seabird assemblage feature has been provided in REP2-006. Seabird assemblage feature has been added to the screening matrix for the site (see document reference: 5.3.2).
5	**Northumbria Coast SPA/Ramsar**: We note that Arctic tern is also a qualifying feature of this SPA and needs to be considered by the Applicant. We agree that none of the qualifying features of this SPA and Ramsar are screened in for any impacts due to East Anglia One North alone or in-combination with other plans and projects.	Arctic tern has now been added to the screening matrix for the site (see document reference: 5.3.2).
6	**Outer Thames Estuary SPA**: Whilst we agree with the overall conclusions to screen in Outer Thames Estuary SPA for further assessment, we advise that	This has now been reflected in the screening matrix for the site (see document reference: 5.3.2).

Reference	NE Comment	Applicants Comments
	the text should be revised to reflect that there is an impact as a result of the close proximity of the array to the SPA, in addition to any LSE from activities and operations within the cable corridor.	
6a	Point b) states "…Disturbance to red-throated diver is possible, especially during export cable installation." This does not reflect the fact that disturbance and displacement is also likely to be from the East Anglia One North array itself, even though the array is not within the SPA boundary. Therefore, we advise that the text is amended to reflect the fact that the impacts from both the cable route and the array need to be assessed.	'Point b' refers to potential impacts during the construction and decommissioning phases. Operational windfarm array disturbance is covered in 'Point c'. The Applicants consider that no change to this text is required.
6b	Natural England also disagree with the statement: "… the Project will make little difference to the existing baseline and therefore the potential for LSE is considered to be negligible." As stated in our Relevant Representations [RR-059], when a full and robust assessment is undertaken, considering impacts from the East Anglia One North array, Natural England advises that impacts are significant.	See response to point 6a above.
6c	Natural England strongly disagrees with point e) "The predicted effect attributable to East Anglia ONE North is so small that it would not significantly contribute to or alter the overall in-combination assessment for these features at Outer Thames Estuary SPA". As outlined in our Relevant Representations [RR-059] (and in [REP1-172]) we advise that due to displacement caused by the close proximity of East Anglia One North to the SPA boundary, there is an adverse effect on integrity (AEoI) from East Anglia One North alone and therefore it cannot be ruled out. We also advise that there is likely to be a	'Point e' related specifically to cumulative decommissioning impacts and was mislabelled. This has now been deleted and the cumulative / in-combination decommissioning impact assigned as 'Y (b)' which now aligns with the project alone displacement / disturbance impact which is appropriate (see document reference: 5.3.2).

Reference	NE Comment	Applicants Comments
	significant contribution to an in-combination total that is already at a level where an AEoI in-combination cannot be ruled out.	

2 Applicants' Responses to NE Comments on other Interested Parties' ExA Written Question Answers (NE Appendix K1b REP2-058)

2.1 Overarching General and Cross-Topic Questions

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
1.0 Overarching, general and cross-topic questions							
1.0.4	The Applicant, ESC, SCC, Historic England, Natural England, AONB Board, Parish Councils, SASES, SEAS, SEAS, SoS	1	2	**Design Mitigation: Adverse effects - AONB** Is sufficient weight given to the statutory purpose and need for protection of the landscape, character and special qualities of the Suffolk Coast and Heaths AONB both within and from outside its boundary, in accordance with paragraphs 5.9.9 and 5.9.12 of EN-1? a) Provide reasons for your answer. b) If not, what further measures are required?	It is the Applicants' view that sufficient weight has been given to the statutory purpose and need for protection of the landscape, character and special qualities of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB). The ***Development Consent and Planning Statement*** (APP-579), ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052) and ***Chapter 28 Offshore Seascape, Landscape and Visual Amenity*** (SLVIA) (APP-076) details the consideration of the AONB in the siting of the proposed onshore infrastructure and how the Projects may affect the landscape, character and special qualities of the AONB. A key design decision was the site selection for the onshore substation and National Grid substation outside of the AONB. This process is described in***, section 4.9*** of ***Chapter 4*** (APP-052). One of the key site selection principles was to minimise significant impacts on the 'special qualities' of the AONB. The AONB Special Qualities appraisal (detailed in ***Appendix 4.3*** (APP-444) concluded that if the substation(s) were to be sited in the final selected locations, there is likely to be no significant effects on the special qualities of the AONB from onshore infrastructure. With the exception of small marker posts at intervals along field boundaries to indicate the presence of the onshore cables, there will be no above ground infrastructure within the AONB. It is considered that the Projects' effects on the AONB would be restricted to construction of the onshore cables only. ***Section 29.6*** of ***Chapter 29 LVIA*** (APP-077) provides a specific assessment on Suffolk Coast and Heaths AONB. Potential impacts include: • Effects on landscape character; • Effects on landscape elements;	We note that NE's position is referenced in the Applicant's response. For full context of NE's position please see REP1-157 – Appendix E1b	The Applicants have responded in full to Appendix E1b in REP2-004.

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			• Effects on special qualities; and • Visual effects. ***Chapter 28 Offshore Seascape, Landscape and Visual Amenity*** (SLVIA) (APP-078) of the East Anglia ONE North Application identifies no significant effects on some specific aspects of special qualities as a result of the East Anglia North windfarm site, as experienced along part of the AONB coast. This conclusion is accepted by Natural England in their relevant representation (RR-059). No further consideration of East Anglia ONE North is therefore provided here. ***Chapter 28 SLVIA*** (APP-076) for East Anglia TWO identifies significant effects on some specific aspects of special qualities as a result of the East Anglia TWO windfarm site, as experienced along part of the AONB coast, however the conclusion in paragraph 340 of (APP-076) states: '*It is not the overall character or physical features of the coastal edges of the AONB that will be changed, but instead it is specific aesthetic/perceptual aspects of its character relating to panoramic views offshore at the coast that will experience change. The construction and operation of the offshore infrastructure will have a relatively low change to the strong overall character of the AONB and will not result in harm to the special qualities of the AONB in overall terms, with the varied and distinctive landscapes of the AONB continuing to define its overall and fundamental character'.* Regarding the statutory purpose of the AONB, the Applicants' intend to submit a full consideration of potential effects at Deadline 2 (*'Effects with Regard to the Statutory Purposes of the Suffolk Coasts and Heaths Area of Outstanding Natural Beauty and Accordance with NPS Policy'*). In essence, the statutory duty, as defined in the Countryside and Rights of Way Act 2000 is for relevant authorities to have regard to the purpose of conserving and enhancing the natural beauty of the AONB (Section 85). This duty to have regard to the purposes of the AONB also applies to development outside designated areas that might affect them, as defined in NPS EN-1 (Para 5.9.12 – 5.9.13): *'The duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid compromising the purposes of designation and such projects*		

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			should be <u>designed sensitively</u> given the various siting, operational, and other relevant constraints'. The Applicants consider that it has clearly had regard to the purpose of conserving the natural beauty of the AONB. In particular, both the onshore infrastructure of the Projects and offshore infrastructure of East Anglia TWO have been 'designed sensitively' in respect of the purpose of conserving the natural beauty the AONB. Design iteration has taken place which has reduced the effect on the AONB, whilst maintaining the generation capacity and commercial viability of the project. The area of the East Anglia TWO windfarm site, and its lateral spread were reduced following stakeholder feedback. The north-south extent of the East Anglia TWO windfarm site was reduced (by 9.68km on the western boundary and 8.03km on the east) in order to mitigate potential seascape effects, without a reduction in wind turbine numbers or generation capacity. This refinement is shown in ***Figure 4.3: Refinement of the East Anglia TWO Windfarm Site Boundary*** of the ES (APP-082). As a consequence, the magnitude of change on seascape, landscape and visual receptors and on the setting and key coastal viewpoints within the AONB was reduced. ***Chapter 28 SLVIA*** (APP-076), confirms that, while a reduction in the defined magnitude of impact (i.e. low / medium / high) has not occurred from all viewpoints, this refinement has resulted in a reduction in the landscape and visual effect of the offshore elements of the East Anglia TWO project, including a reduction in effects on the AONB. This mitigation applied to the East Anglia TWO windfarm site is recognised by Natural England, particularly in respect of the reduced lateral spread of turbines on the skyline and its reduced cumulative effect with East Anglia ONE North (which as highlighted is accepted by Natural England to have no project-alone significant effects on the AONB). The Applicants also note that the reduced maximum turbine height parameter (from 300m to 282m blade tip) provides further mitigation of the apparent height/vertical scale of turbines visible in views from the AONB. The Applicants consider that the Projects have achieved the aim stated in NPS EN-1 to design sensitively given the relevant constraints onshore and offshore and that the East Anglia TWO windfarm site does not compromise the purposes of the AONB designation.		

2.2 Overarching HRA

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
1.2 Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA)) **Over-arching HRA**							
1.2.2	The Applicant	1		**HRA Screening Matrices: EA1N** There are a number of sites listed in the HRA Screening Report [APP-044] which are not present in the Screening Matrices [APP-045]. a) Please can the Applicant provide its rationale for excluding the following sites from the Screening Matrices: - Minsmere to Walberswick Heaths and Marshes SAC - Plymouth Sound and Estuaries SAC - Severn Estuary SAC - River Avon SAC - Havet Omkring Nordre Ronner (SAC or SPA - not stated) - Knudergrund SAC - LØnstrup RØdgrund SAC - Sandbanker ud for Thorsminde SAC - Sandbanker ud for Thyboron SAC - Thyboron Stenvolde SCI - Littoral Cauchois SAC - Panache De La Gironde Et Plateau Rocheux De Cordouan (Système Pertuis Gironde) SAC - Pertuis Charentais SAC - Mühlenberger Loch / Neßsandsci - SchleswigHolsteinisches Elbastuar und angrenzende Flachen SAC - Unterelbe SCI b) If additional matrices are required, please revise the numbering references of the matrices accordingly.	(a) & (b) These sites were excluded from the screening matrices in error and are now provided in an updated ***East Anglia ONE North Habitat Regulations Assessment - Appendix 2 - Information to Support AA Report - Screening Matrices*** (document reference 5.3.2 EA1N) submitted at Deadline 1 with revised number references.	We have reviewed the updated screening matrices and provide comment in our response to this document at Deadline 2 Appendix F6.	The Applicants have provided responses to NE's Appendix F6 in ***section 1.6*** and updated Screening Matrices have been submitted at Deadline 3 (document reference 5.3.2) F6.
1.2.3	The Applicant		2	**HRA Screening Matrices: EA2** There are a number of sites listed in the HRA Screening Report [APP-044] which are not present in the Screening Matrices [APP-045]. a) Please can the Applicant provide its rationale for excluding the following sites from the Screening Matrices: - Havet Omking Norde Ronner SAC - Knundegrund SAC - Littoral Cauchois SAC - Lonstrup Rodgrund SAC - Muhlenberger Loch/Nessand SCI - Panache De La Gironde Et Plateau Rocheux De	(a) & (b) These sites were excluded from the screening matrices in error and are now provided in an updated ***East Anglia TWO Habitat Regulations Assessment - Appendix 2 - Information to Support AA Report - Screening Matrices*** (document reference 5.3.2 EA2) submitted at Deadline 1 with revised number references. "Saxa Water SPA and Ramsar" was a typographic error within the HRA Screening Report (APP-044) and should	Please see the answer to 1.2.2 above.	No further comment

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
				Cordouan (Systeme Pertuis Gironde) SAC - Pertuis Charentais SAC - Plymouth Sound and Estuaries SAC - River Avon SAC - Saxa Water SPA - Saxa Water Ramsar - Sandbanker ud for Thyboron SAC - Sandbanker ud for Thorsminde SAC - Schleswig-Holsteinisches Elbastuar und angrenzende Flachen SAC - Severn Estuary SAC - Thyboron Stenvolde SCI - Unterelbe SCI b) If additional matrices are required, please revise the numbering references of the matrices accordingly.	be 'Hamford Water SPA and Ramsar site'. A screening matrix for this site was excluded in error and has now been included in an updated ***East Anglia TWO Habitat Regulations Assessment - Appendix 2 - Information to Support AA Report - Screening Matrices*** (document reference 5.3.2 EA2) submitted at Deadline 1. Minsmere to Walberswick SAC was also excluded in error and so a screening matrix for this site has also been included in an updated ***East Anglia TWO Habitat Regulations Assessment - Appendix 2 - Information to Support AA Report - Screening Matrices*** (document reference 5.3.2 EA2) submitted at Deadline 1.		
1.2.9	The Applicant and Natural England	1	2	**HRA: Draft Review of Consents for Major Infrastructure Projects and Special Protection Areas** In August 2020, the Department for Business, Energy and Industrial Strategy (BEIS) published a Draft Review of Consents for Major Infrastructure Projects and Special Protection Areas. • Could the Applicant and Natural England please comment on the relevance of that draft review to the HRA for the EA1N and EA2 projects?	The Draft Review of Consents for Major Infrastructure Projects and Special Protection Areas report[9] documents the screening stage of the HRA (being undertaken by the SoS) and therefore identifies and assesses the potential for LSEs on SPAs which became European sites or European Offshore Marine sites following the issue of a relevant consent, but prior to the completion of a project for those projects in territorial waters and onshore. The assessment considers the potential for both project alone and in-combination effects with other plans or projects. Those relevant SPA sites and related consents for which an LSE has been identified will be subject to an appropriate assessment (AA) as part of second stage of the HRA. The SoS is currently considering the feedback from consultation on the report. No timeline is presented for conclusion of this process. From the Applicants' understanding of the conclusions of this report, the most relevant part of this review is in relation to the Outer Thames Estuary SPA. In this	Natural England notes the Applicant is in agreement with the proposed approach suggested by BEIS for the SPA RoC i.e. that the Outer Thames SPA is excluded. And therefore existing projects are part of the baseline. However, the consultation was only on the proposed approach for the RoC, for which NE has provided further input Deadline 1 Appendix A5 [REP01-167]. We therefore wait the outcome of the consultation and confirmation from BEIS on the actual approach they will take. Until that time Natural England's advice provided at Deadline 1 Red Throated Diver Advice Appendix A4 [REP01-172] remains unchanged.	No further comment

[9] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/912429/spa-roc-for-energy-developments-in-england-and-wales-draft-for-consultation.pdf

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
					review the only projects considered in relation to the SPA are East Anglia ONE and East Anglia THREE (section 4.15). The Outer Thames Estuary SPA is not taken forward for further assessment (i.e. LSE alone or in-combination has been screened out). No wind farm projects which are relevant to the Outer Thames Estuary SPA or its features are included for further consideration in the Review of Consents. The Applicants therefore consider that these conclusions support the view that existing projects within the Outer Thames Estuary SPA should be considered part of the baseline and that the approach set out in ***Habitat Regulations Assessment – Information to Support Appropriate Assessment Report*** (APP-043) was correct in not undertaking a quantitative assessment including London Array, Kentish Flats etc.		

2.2.1 Offshore Ornithology

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
1.2 Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA)) **Offshore ornithology**							
1.2.11	The Applicant	1	2	**Red-Throated Diver: Project Environmental Management Plan (PEMP)** Responding to Natural England's [RR-059], the Applicant states (Table 35 of [AS-036]) that the PEMP should be produced post-consent, once details of the project are confirmed. Accordingly, no draft of the document, which is secured by DML conditions, has been submitted. a) Can the Applicant explain why the DML conditions relating to the PEMP refer only to the purpose of minimising disturbance to red-throated divers, whereas the Schedule of Mitigation [APP-574] in relation to operation effects (Mitigation Reference 6.4) states a wider purpose of reducing risk of physical injury or	a) Regarding the reference within the ***Offshore Schedule of Mitigation*** (APP-574) to risk of physical injury from vessels, this was an error. Birds would be disturbed by vessel noise and vessel presence. It is highly unlikely that a vessel would collide with individual birds which is reflected in the fact that this issue has not been raised by stakeholders. For clarity, the mitigation measures described within the best practice protocol for red-throated diver will mitigate potential impacts on any seabird species in the vicinity of	Natural England advises that an outline PEMP is provided during the consenting phase to ensure that as a minimum the standard best practice mitigation is being adopted to remove AEOI.	The Applicants do not consider it necessary to produce a draft PEMP prior to consent for the reasons set out in their response to part b) of this ExA question. However, the Applicants have been engaging with NE on this matter and have submitted a best-practice protocol to minimise disturbance to red-throated diver at Deadline 3 (document reference ExA.AS-22.D3.V1) which will form part of the final PEMP.

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
				disturbance to offshore ornithology? b) Given the strong rationale for as much certainty as possible in respect of measures to minimise disturbance to red-throated divers, does the Applicant consider that it would be possible for a document akin to a 'Draft PEMP' to be produced at this stage, to be a certified document within the DCO and with which the eventual PEMP must accord in respect of red-throated diver mitigation?	Project vessels or Project vessel transit routes however, because the PEMP will specifically address management of potential impacts on red-throated diver which is known to be particularly sensitive to disturbance from vessels, the focus within the PEMP is on that species. b) The Applicants do not consider it necessary to produce a draft PEMP prior to consent. The Applicants consider that the requirement for approval of the final PEMP by the MMO in consultation with Natural England provides the necessary assurance that potential impacts on red-throated diver will be managed accordingly and that management will be based on the most up to date scientific information at the time together with the relevant Project information such as the Operations and Management port and vessel transit routes.		
1.2.15	The Applicant	1	2	**Flamborough and Filey Coast SPA: Project Alone Effects on Gannet** In response to a request from the RSPB, the Applicant has agreed (Table 61 of [AS-036] and [AS-054]) to provide an updated project-alone assessment on gannet presented as a Population Viability Analysis output in the form the Counterfactual of Population Size. a) Could the Applicant please indicate at which deadline this updated assessment will be submitted into the Examination, noting that this should be made available as early in the Examination as possible. b) When submitting this material, please could the Applicant set out the extent to which it has been seen and/or agreed by RSPB and Natural England.	The Applicants will provide gannet Population Viability Analysis (PVA) outputs, both the counterfactual of population size and the counterfactual of population growth rate at Deadline 2. If time permits, these will be provided to Natural England and the RSPB for review prior to submission, although it should be noted that since these updates will use the Natural England PVA tool and will include a summary of the input settings, both organisations will be able to review and confirm the approach taken and there is therefore a reduced requirement for agreement prior to submission at Deadline 2.	NE will be responding on the draft document once it has been submitted at Deadline 2	No further comment
1.2.17	The Applicant	1	2	**Flamborough and Filey Coast SPA: Effects on Breeding Seabird Assemblage Alone and In-Combination** a) Please could the Applicant indicate when its assessment of effects on the seabird	The assessment of potential effects on the seabird assemblage of the Flamborough and Filey Coast SPA will be submitted at Deadline 2. If time permits, these will be	Please see the answer above for 1.2.15	No further comment

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
				assemblage feature of the Flamborough and Filey Coast SPA (as referred to in Table 61 of [AS-036]) will be submitted to the Examination, noting that this should be made available as soon as possible? b) In doing so, please could the Applicant set out the extent to which the material has been seen and/or agreed by RSPB and Natural England.	provided to Natural England and the RSPB for review prior to submission.		
1.2.18	Natural England and The Applicant	1	2	**Cumulative and In-Combination Assessments for Offshore Ornithology** The Applicant has responded to Natural England's advice about cumulative and in-combination assessments at Sections 3 and 4 of Table 35 of [AS- 036], albeit that its responses on many aspects of this topic were deferred until after the decision deadline for the Norfolk Vanguard and Hornsea Three projects. a) In providing its updated information to inform appropriate assessment at Deadlines 1 and 3 (as confirmed in [AS-061]), please could the Applicant respond in full to those aspects of Natural England's advice [RR-059] and RSPB's representation [RR-067] to which it has not yet responded. b) Where the Applicant has provided a substantive response to Natural England's points in [AS-036], please could Natural England comment on its satisfaction with those responses.	a) The Applicants have responded in full to these aspects of Natural England's and RSPB's Relevant Representations (RR-059 and RR-067) within the ***Offshore Ornithology Cumulative and In-Combination Collision Risk Assessment Update*** (document reference ExA.AS-7.D1.V1) submitted at Deadline 1, and will also do so in the Deadline 3 submission (Spatial modelling of red-throated divers (RTD) in the Outer Thames Estuary SPA).	Please see our Deadline 2 Appendix A9 document. Natural England does not consider that the Applicants have responded in full. We have yet to see a robust and complete cumulative and in-combination assessment for red throated diver. We have requested sight of the red throated diver modelling document the Applicant's intend to submit at Deadline 3, but at the time of writing this have not been provided. Once submitted we will provide a response no sooner than D5 due to wider specialist input being required	The Applicants have responded to NE's Appendix A9 in ***section 1.4***. A draft of the new analysis of displacement was provided to NE on the 16th of November ahead of a workshop to discuss the results on the 7th of December. The analysis has been submitted at Deadline 3 (document reference ExA.AS-4.D3.V1).
1.2.19	Natural England	1	2	**Cumulative and In-Combination Assessment for Offshore Ornithology: Applicant's Precaution Note** The Applicant submitted an Offshore Ornithology Precaution Note as Appendix 4 to its Rule 9 submissions [AS-041]. • Please could Natural England provide its comments on the content of this note as it relates to the proposed development?	Notwithstanding the Applicants' position that they disagree with Natural England on a number of matters regarding the interpretation of precaution, the Applicants do not intend to comment further on precaution within offshore ornithology assessments. The Applicants' position remains as set out within ***Applicant's Comments on Relevant Representations - Appendix 4: Offshore Ornithology Precaution Note*** (AS-041). The Applicants and Natural England have agreed to adopt the cumulative and in-combination numbers from the recent Norfolk Boreas examination as a 'common currency' going forward.	Natural England's response to the Applicant's Offshore Ornithology Precaution note is set out in our submission at Deadline 1 Appendix A3 [REP1-169].	No further comment

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
1.2.23	Natural England and The Applicant	1	2	**Post-Construction Monitoring for Offshore Ornithology** The ExA notes both the concerns of Natural England at section 5 of [RR- 059] with respect to post-construction monitoring provisions and comments from the RSPB about the need for a more detailed post- construction monitoring plan at this stage. a) Please could the Applicant respond to the comments of Natural England on this matter. What scope is there to include the areas suggested by Natural England for post-construction monitoring within the existing provisions of the dDCO/DMLs and/or Offshore In-Principle Monitoring Plan? b) Could Natural England please respond to the Applicant's clarification that the strategic monitoring to which it refers in section 1.6.7.2 of [APP-590] would not be secured within this DCO? c) On the basis of this clarification, is Natural England satisfied that sufficient post-construction monitoring provisions for offshore ornithology are secured within the dDCO, DMLs and Offshore In-Principle Monitoring Plan? If not, what changes would it advise?	The Applicants will update the ***Offshore In-Principle Monitoring Plan*** (IPMP) (APP-590) to include a requirement for RTD monitoring. The revised IPMP will be re-submitted to the Examination at Deadline 3. If time allows, consultation with Natural England will be undertaken in the lead-up to Deadline 3 (15 December 2020) to understand Natural England's desired approach to monitoring of RTD. The Applicants intend to update Conditions 20 and 22 of the generation DML and Conditions 16 and 18 of the transmission DMLs to make provision for pre-construction and post-construction ornithological monitoring which will be included in the updated ***Draft DCO*** (APP-023) submitted into the Examination at Deadline 3.	NE welcomes the proposed update and will comment on the both the IPMP and DCO once this has been re-submitted by the Applicant after Deadline 3	No further comment

2.2.2 Marine Mammals

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
1.2 Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA)) **Marine Mammals**							
1.2.26	Marine Management Organisation (MMO) and the Applicant	1	2	**Inclusion of UXO Clearance Activities within DMLs** The ExA notes the MMO's [RR-052] position that UXO (Unexploded Ordnance) clearance activities should not be included within the DMLs and rather should be determined via separate marine licence applications after the DCO consenting process and prior to construction. In Table 29 of [AS- 036] the Applicant has set out the reasons why it has taken the approach it has taken and seeks to demonstrate how the DMLs adequately control UXO clearance activities. The submitted early draft SoCG [AS-051] states that discussion between the Applicant and the MMO on this matter is ongoing.	c) As far as the Applicants are aware, no DMLs to date include UXO clearance. With respect to the Projects, UXO clearance has however been assessed in the ES (using a worst case scenario formulated by considering experience from East Anglia ONE) in order to justify the inclusion of such activities within	Natural England has some outstanding concerns with the conditions please see response at Deadline 1 Appendix G1b [REP1-155]	See the Applicants' response to Appendix G1b (REP2-004).

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
				a) Could the MMO please respond with reasons to the position set out by the Applicant, specifically that: - UXO clearance activities are adequately assessed in the submitted ES; - the draft DML conditions provide adequately for post-consent approval by the MMO of mitigation for UXO clearance activities via the method statement for UXO clearance, the Marine Mammal Mitigation Protocol and the Site Integrity Plan; - to request that a separate marine licence application (or applications) is made would be contrary to one of the intended purposes of the DCO regime, to streamline multiple consenting processes; - a European Protected Species licence for any UXO campaign is capable of being applied for separately from the marine licensing of such activity, in an analogous way to the approach for piling activity authorised by DMLs; and, - in the event that UXO clearance activities are required beyond the scope of what has been assessed in the ES and applied for via the DMLs, then a separate marine licence can be applied for, rather than needing to vary the DMLs? b) Please could the MMO provide a copy of the marine licence conditions for UXO clearance in its cited example of the Hornsea 2 project? c) Can the Applicant please provide any examples of other consented offshore wind projects which include UXO clearance works within the licensed marine activities covered by their DMLs? Where examples exist, please provide the text of deemed marine licence conditions dealing with UXO clearance activities. d) Please could the Applicant and MMO ensure that the SoCG requested for Deadline 1 provides an update on this matter.	the DMLs. The UXO clearance activities are also appropriately controlled by the conditions of the DMLs (which are based on the conditions found within other UXO marine licences). d) An updated SoCG with the MMO has been submitted at Deadline 1 (document reference ExA.SoCG-6.D1.V2). As noted in paragraphs 14 to 18 of the SoCG, engagement on UXO clearance has been undertaken and issues have not yet been fully resolved. The Applicants understand that the MMO written representation submission into the examination at Deadline 1 will reflect the progress made on this matter.		
1.2.28	The Applicant, Natural England, Marine Management Organisation, The Wildlife Trusts	1	2	**Disturbance of Harbour Porpoise from UXO Detonation and Piling: 20% Threshold** Following Natural England's [RR-059], the Applicant notes in [AS-036] that its Information to Support Appropriate Assessment Report [APP-043] does not reflect the updated Conservation Objectives for the Southern North Sea SAC insofar as they state that disturbance of harbour porpoise will not exceed '*20% of the relevant area of the site in any given day*'. The Applicant accepts that two events of either UXO clearance or piling (or a combination of both) in a single day	a) The assessments have been revised in the ***HRA Addendum*** which has been submitted at Deadline 1 (document reference ExA.AS-19.D1.V1). b) The In-Principle Site Integrity Plan (IPSIP) will be updated and re-submitted at Deadline 3 to take account of the amended conservation objectives and the	Please see Natural England's comments in the deadline 2 covering letter. We will respond to the HRA addendum at deadline 3. We will review and provide comments at D5 on the revised IPSIP	No further comment

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
				would exceed the 20% limit for the winter area only, with no exceedance for the summer area. a) Please could the Applicant update the relevant sections of its Information to Support Appropriate Assessment Report [APP-043] (for example, by submission of an Addendum to that Report) to reflect the current Conservation Objectives for the Southern North Sea SAC. This should include the revised findings in respect of the effects on site integrity of more than one UXO clearance event, piling event or combination of both in any 24 hour period. b) Could the Applicant clarify whether, in light of the above updates, it still considers there is a sound basis for the In-Principle Site Integrity Plan provisions at section 6.1, including that potentially more than one UXO detonation, piling event or combination of both could occur in any 24 hour period? c) Do Natural England, the MMO, The Wildlife Trusts or any other relevant party wish to comment on the Applicant's reasoning in Table 36 of [APP-036] for not limiting UXO detonations and piling events to a total of one in any 24 hour period? d) Could all relevant parties please also ensure that the status of discussions on this issue is covered within the SoCGs requested for Deadline 1.	outcomes of the updated assessment within the ***HRA Addendum*** submitted at Deadline 1 (document reference ExA.AS-19.D1.V1). The Projects' commitments have been updated as shown in the ***HRA Addendum*** which has been submitted at Deadline 1 (ExA.AS-19.D1.V1). d) This will be included in the SoCG with Natural England (document reference ExA.SoCG-13.D1.V1), the MMO (document reference ExA.SoCG-6.D1.V2) and The Wildlife Trust (TWT) (document reference ExA.SoCG-28.D1.V1).		
1.2.29	The Applicant	1	2	**Restrictions on Concurrent UXO Detonation and Piling: Points of Clarification** Could the Applicant please clarify the following points of detail: a) Please could the Applicant review paragraph 1035 of [APP-043], which states that it has been assumed that UXO clearance could be undertaken in the offshore cable corridor concurrently with piling in the array area. This appears to be inconsistent with the commitments at section 6.1 of the In-Principle Site Integrity Plan, which refers to the 'offshore development area', defined as the offshore order limits including both array area and export cable area, and the provisions of the draft Marine Mammal Mitigation Protocol (MMMP) [APP-591]. Could the Applicant please confirm what it is committing to in terms of restrictions (spatial and temporal) on concurrent underwater piling and UXO events within the offshore order limits? b) Paragraph 634 of [APP-044] states '*the Applicant, if required, would ensure UXO detonation and piling would not occur at the same time…'*. Could the Applicant clarify whether 'if required' refers to piling/UXO clearance or mitigation in this statement?	a) As outlined above, the Projects' commitments will be clarified in the updated IPSIP and the draft Marine Mammal Mitigation Protocol (MMMP) which are to be submitted at Deadline 3. The revised commitments are set out in the ***HRA Addendum*** which has been submitted at Deadline 1 (document reference ExA.AS-19.D1.V1). The relevant commitment in the context of this question is: • During the winter period there would be no UXO detonation **without mitigation** in the offshore development area in the same 24 hour period as any piling **without mitigation** in the offshore development area. There is no requirement for a similar	Please see answer to question 1.2.28 above. And Natural England will continue to work with the Applicant on potential DCO/dML condition wording	No further comment

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
					commitment in the summer period. • There would be no concurrent piling or UXO clearance in either season within the offshore development area for each Project. There would be no concurrent piling or UXO clearance between the Projects in either season. b) This commitment which applies to the winter period in the offshore development area only has been updated to reflect the revised interpretation of the guidance, as presented above. In this case, there could either be one detonation or one piling event in one 24 hour period, unless it can be demonstrated that effective mitigation can be provided for either activity (or both). This will be reflected in the updated Site Integrity Plan (SIP) which will cover management of Project-alone as well as in-combination effects.		
1.2.31	The Applicant, Natural England, Marine Management Organisation, The Wildlife Trusts	1	2	**Concurrent Piling at East Anglia ONE North and East Anglia TWO** The In-Principle Site Integrity Plan [APP-594] states at bullet four of section 6.1 that '*(t)here would be no concurrent piling or UXO detonation between the proposed East Anglia ONE North and East Anglia TWO projects if both projects are constructed at the same time'*. However, it does not appear to limit the overall number of piling or UXO detonation events that could potentially occur within any 24 hour period across the two projects. a) Do Natural England, the MMO, The Wildlife Trusts and the Applicant consider that it should? Please given reasons for your position. b) Could Natural England please explain why it considers in [RR-059] that a DML condition would be a more appropriate way to secure the particular mitigation commitments relating to concurrent piling between the East Anglia ONE North and East Anglia TWO projects? c) Whilst noting the Applicant's response at Table 45	a) The IPSIP sets out the process for managing potential effects and lists potential mitigation. The SIP mechanism allows for the review of currently available mitigation techniques as well as consideration of new techniques that may become available during the pre-construction phase. It will also enable changes to the science, changes in guidance and regulatory advice and any changes to the conservation objectives for the SAC to be taken into consideration prior to approval of the SIP and MMMP by the MMO. Additionally, the Applicants have committed to consulting with Natural England	Natural England does not agree with the applicant and refers you to our Deadline 1 response Appendix B1b [REP01-166] and G1b [REP01-155].	See the Applicants' response to these appendices within REP2-004. The Applicants request further clarity on the specific points that NE disagree with in the Applicants' response to this question.

ExA. Question Ref.	Question addressed to	ExA. Question	Applicants' Response	NE Comment	Applicants' Response
		of [AS-036], could it please respond specifically to Natural England's suggestion that a 'Co-operation Plan / Agreement' is required to be secured via DML condition for both projects to manage and mitigate underwater noise from piling and UXO activities in the event that construction periods for the two projects overlap?	(and The Wildlife Trust) through the IPSIP and have proposed a consultation programme within the IPSIP (Table 2.1) that commences more than 12 months in advance of the first noisy activity (UXO clearance). Therefore, there is no need to set out limits on UXO detonations in the IPSIP. Any such limits, if required, would be presented in the final SIP using up to date Project design information, science and guidance. b) It is the Applicants' view that the commitments secured in the conditions in the DMLs prevent breaches of the conservative objective noise thresholds both for Project alone and cumulative cases through the approval process of the SIP and the MMMP. The SIP provides a flexible management mechanism as described above. It is the Applicants' view that the commitments already made allow for robust control of this issue by the MMO and that no further conditions are necessary. The Applicants would therefore re-emphasise that the approval process of the SIP and MMMP together with the associated DML conditions are the appropriate mechanisms in which to secure the commitments that have been made. c) The Applicants do not consider it appropriate to include a condition within the DMLs to require a co-operation plan or agreement for the Projects to manage and mitigate underwater noise from piling and UXO activities as this		

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
					will be managed through existing DML conditions. The timing of piling and UXO clearance activities will be notified to the MMO through the construction programme (Condition 17(1)(b) of the Generation DML and Condition 13(1)(b) of the Transmission DML) and through the programme of works contained within the method statement for UXO clearance (Condition 16(1)(a)(iii) of the Generation DML and Condition 12(1)(a)(iii) of the Transmission DML), respectively and will be managed through the approval process for the SIP (Conditions 16 and 17(2) of the Generation DML and Conditions 12 and 13(2) of the Transmission DML). In approving the plans for the second Project, the MMO will already have the necessary information about the first Project and will be able to approve the SIP for the second Project in light of this information.		
1.2.34	The Applicant	1	2	**Southern North Sea SAC: Thresholds for the Significance of Disturbance Effects** Thresholds for the significance of disturbance effects in relation to Southern North Sea SAC conservation objectives for harbour porpoise are set out in Section 5.3 of [APP-043]. • Can the Applicant explain how the significance of disturbance effects for grey seal and harbour seal has been determined?	There are currently no guidance or thresholds to determine the potential significance of disturbance of grey or harbour seal. Significance was therefore based on the percentage of the relevant reference population or management unit for the area and SAC that could be temporarily disturbed. Following the approach in ***Chapter 11 Marine Mammals*** (APP-059), for example, an effect on less than 1% of the reference population is considered to have a negligible effect on the population. Note that the methodology for the assessment of seals was discussed and agreed through the Evidence Plan Process with Natural England, and	The methodology for assessing impacts to seals was agreed during the Evidence Plan Process and Natural England is therefore in agreement with the Applicant's response.	No further comment

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
					follows the methodology used on many consented projects including Norfolk Vanguard.		
1.2.35	The Applicant	1	2	**Marine Mammals: Acoustic Deterrent Devices** The Applicant's marine mammal assessment [APP-043] makes reference to the use of acoustic deterrent devices (ADDs) as part of the mitigation to be secured within the final MMMP, and the assessment considers the adverse effects of this mitigation. The characteristics of the ADDs on which the assessment has been based appear not to be described in [APP-043] or in the draft MMMP. It is not clear, for example, what types of deterrents have been considered, which species / life history stage of a species these deterrents would target, where and how such deterrents would be implemented / fixed, any commitments to their ongoing upkeep, and the anticipated effectiveness of such deterrents (such as avoidance). • Please could the Applicant confirm where this information is provided? If it is not included within the application documents, please provide it.	The assessments on the potential disturbance during proposed mitigation, such as ADD activation, was based on the duration that a device could be activated rather than a specific type of device. The type of ADDs to be deployed would be based on the latest technology and information to ensure adequate and effective mitigation for the species required. Further information will be added to the draft MMMP on the effectiveness of ADDs and how they will be deployed. The updated draft MMMP will be submitted to the Examination at Deadline 3.	NE will provide comments on the revised MMMP at Deadline 5	No further comment
1.2.36	The Applicant, Marine Management Organisation, Natural England and The Wildlife Trusts	1	2	**Marine Mammals: In-Principle Site Integrity Plan - Certainty** Under the provisions of the dDCO, the future SIP(s) must accord with the principles set out in the In-Principle SIP (IPSIP), which is to be a certified document under Art 36. The submitted IPSIP [APP-594] appears to indicate (for example at Table 2.1) that the document itself would continue to be revised and updated following the grant of DCO consent. a) If the IPSIP is necessary to ensure the avoidance of Adverse Effects on Integrity of the designated features of the Southern North Sea SAC, does the scope for review and change to the IPSIP post-DCO consent provide sufficient certainty that it can be relied upon for its intended purpose in the DCO consenting process? b) In [APP-036] the Applicant refers to a statement in Table 2.1 of [APP- 594] that *'(a)longside the in-principle SIP for UXO clearance an implementation plan and any monitoring requirements will also be drafted for any required measures*'. Could the Applicant please expand on this statement? - What would be the function of the implementation plan relative to the IPSIP/SIP? - Is it envisaged that this would be within the scope of the material to be submitted to and approved in writing by the MMO under the relevant DML conditions?	a) The IPSIP will not be updated post consent. The final SIP produced post consent will be based upon the certified IPSIP. An updated IPSIP will be submitted at Deadline 3 with revised wording to clarify this point. b) The text quoted is a typographical error and should read: *'within the final SIP for UXO clearance an implementation plan and details of any monitoring requirements to assess the effectiveness of mitigation measures will be included.'* The implementation plan referred to will be part of the final SIP which will be submitted to and approved in writing by the MMO. The final SIP will also detail any monitoring required to assess the effectiveness of the mitigation.	Natural England refers to our advice at deadline 1 Appendix B1b [REP01-166] and G1b [REP01-155].	See the Applicants response to these appendices within REP2-004.

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
1.2.40	The Applicant	1	2	**Site Integrity Plans: Point of Clarification** The dDCO [APP-023] appears to provide for the production of separate Site Integrity Plans for UXO Clearance and piling activities. • Can the Applicant clarify what is the maximum number of Site Integrity Plans in relation to the Southern North Sea SAC that may be produced for a single project?	The ***draft DCO*** (APP-023) provides for two SIPs, one for UXO clearance and one for piling. These are secured separately in the Generation and Transmission DMLs but in practice a single SIP, prepared to meet the requirements of both DMLs, would be produced for each activity	Natural England notes that there is nothing within the DML securing the production of a single SIP per each activity. While unlikely, it is possible that 4 SIPs per project could be produced, potentially with overlapping timeframes. It is also noted that either project could be sold or transferred to another undertaker to construct. Similarly individual DMLs could be sold or transferred. Thus increasing the risk of multiple overlapping SIPs. The inclusion of a co-operation condition would reduce the risk of overlapping SIPs.	The draft DCO has been updated and resubmitted at Deadline 3 and includes a requirement for submission of a UXO Clearance SIP at least three months prior to the commencement of UXO clearance activities. UXO clearance is a pre-commencement activity and therefore this will need to be provided separately and in advance of a SIP for piling as stated in Table 2.1 of the updated IPSIP submitted at Deadline 3 (document reference: 8.13).
1.2.43	The Applicant, Marine Management Organisation	1	2	**Marine Mammal Mitigation Protocol: Point of Clarification** The draft DMLs [APP-023] require that a final Marine Mammal Mitigation Protocol (MMMP) is approved prior to construction in respect of UXO clearance and piling activities associated with both the generation and transmission assets for each project. The submitted draft MMMP [APP-591] appears to indicate that separate MMMPs may be produced, at least in relation to piling and UXO clearance. a) Can the Applicant clarify what is the maximum number of Marine Mammal Mitigation Protocols that may be produced for a single project under the provisions of the draft DMLs? b) in the event that there would be more than one final MMMP, is there a need for coordination of their provisions?	a) The ***draft DCO*** (APP-023) provides for two MMMPs, one for UXO clearance and one for piling. These are secured separately in the Generation and Transmission DMLs but in practice a single MMMP, prepared to meet the requirements of both DMLs, would be produced for each activity. b) The MMMPs for each activity will follow the same structure and only deviate from each other where the detail of the activity requires this. The rationale for separation of MMMPs is a practical one, UXO clearance will take place in advance of piling, therefore the MMMP for that activity is developed separately to allow discharge of the relevant condition at the appropriate time.	Natural England notes that there is nothing within the DML securing the production of a single MMMP per each activity. While unlikely, it is possible that 4 MMMPs per project could be produced, potentially with overlapping timeframes. It is also noted that either project could be sold or transferred to another undertaker to construct. Similarly individual DMLs could be sold or transferred. Thus increasing the risk of multiple and overlapping MMMPs. The inclusion of a co-operation condition would reduce the risk of overlapping MMMPs.	As per 1.2.40
1.2.44	The Applicant, Marine Management Organisation	1	2	**Construction Monitoring: Cessation of Piling Condition** The Applicant states in Table 29 of [AS-036] that it does not consider it necessary to add provisions recommended by the MMO to the DML construction monitoring conditions which would require piling to cease if noise levels are significantly higher than those assessed in the ES, with recommencement dependent upon an updated MMMP and MMO agreement to further monitoring requirements. a) Does the Applicant maintain this position in light of	a) The Applicants do not consider the proposed text to be necessary within the DMLs as the MMO has the necessary enforcement powers under the Marine and Coastal Access Act 2009. The Applicants therefore do not consider that such a condition	Natural England supports the MMO position with regard to the need for this condition.	The Applicants have updated condition 21(3) of the Generation DML and condition 17(3) of the Transmission DML within the draft DCO submitted at Deadline 3 in order to address NE's and the MMO's concerns.

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
				the inclusion of similar conditions for recently consented projects such as at condition 19(3) and 14(3) of the Norfolk Vanguard DMLs? b) If so, please can the Applicant explain why the circumstances of the projects before us justify a different approach to that taken in the Norfolk Vanguard case? c) Please could the MMO respond to the Applicant's statement that the necessary enforcement powers already exist under the Marine and Coastal Access Act 2009?	would meet the legal test of necessity as it duplicates statutory powers. b) The circumstances under which the Applicants and Norfolk Vanguard operate are the same, however the Applicants do not consider a DML condition to be justified for the reasons given above.		
1.2.45	The Applicant, Marine Management Organisation	1	2	**Post-Construction Monitoring Commitments for Marine Mammals** In Table 29 of [AS-029] the Applicant suggests amended wording to DML conditions relating to post-construction monitoring to remove reference to a three-year timescale. The Applicant also states that it will set out details of timescales for post-construction monitoring in the In-Principle Monitoring Plan [APP-590]. a) Does the MMO consider that these changes adequately address its concerns? b) Does the Applicant intend to submit an updated version of the In- Principle Monitoring Plan to this Examination?	b) Yes, the Applicants intend to submit an updated In-Principle Monitoring Plan at Deadline 3.	NE will review the IPMP and provide comment at Deadline 5.	No further comment

2.2.3 Benthic Ecology

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
1.2 Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA)) **Benthic Ecology**							
1.2.48	Natural England	1	2	**HRA screening (EA2)** Document 5.3.4 [APP-047] at page 44 states Natural England is content with the screening of sites with respect to marine mammals, but there is no equivalent statement with respect to other features of the marine environment, or the overall screening exercise. The screening exercise is not raised in Natural England's RR [RR-059]. Is Natural England satisfied with the scope and conclusions of the Applicant's HRA screening as reported in [APP-044] and [APP-045] and does it agree that there are no issues arising in relation to benthic ecology?	During Phase 3 consultation, Natural England stated in a letter dated 8th October 2018 responding to a consultation request from the Applicants regarding the HRA Screening Reports that they were *'content there is no potential for direct or indirect effects which could result in an LSE to offshore SACs with benthic habitat interest features'*.	Please see our response to the ExA first of written questions Deadline 1 Appendix K1 [REP1-159].	See the Applicants' response to NE's answer to this question in REP2-014.

2.2.4 Terrestrial Ecology

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
1.2 Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA)) **Terrestrial Ecology**							
1.2.54	The Applicant	1	2	**Ecological Mitigation Plans (EMPs)** Does the Applicant intend on submitting draft (outline) EMPs into the Examination? If this is not the case could the Applicant please explain the rationale in submitting an outline LMP but not EMP?	The outline Ecological Management Plan (EMP) forms ***Section 10*** of the ***Outline Landscape and Ecological Management Strategy*** (***OLEMS***) (APP-584). Pursuant to Requirement 21(1) of the ***draft DCO*** (APP-023), the Applicants will prepare a final written Ecological Management Plan which accords with the ***OLEMS*** (APP-584) and must be approved by the relevant planning authority in consultation with the relevant statutory nature conservation body prior to the commencement of the onshore works.	Please see our comments at Deadline 2 Appendix C5.	See the Applicants' responses to Appendix C5 in ***section 1.3***.
1.2.55	Natural England/ESC/SCC/Suffolk Wildlife Trust	1	2	**EMP** As drafted, the DCO would allow individual EMPs to be brought forward for each stage of the transmission and grid connection work (onshore) under R11. Does the OLEMS provide a robust framework within which each of these separate EMPs could be produced?	No response	Natural England considers that the OLEMS provides a robust framework for each of the separate EMPs to be produced. The OLEMS contains a sufficiently comprehensive overview of the management and mitigation measures that are planned to address effects to designated sites, habitats, landscapes, birds and protected species at the pre-construction, construction and post construction stages of the onshore transmission and grid connection work. This document can form the basis of the EMPs, which will contain more site specific information due to their formation at the detailed design stage. As detailed within the OLEMS, at the pre-construction phase, walkover surveys will be carried out to microsite construction areas so that important ecological receptors can be avoided, or their loss reduced, where possible. Therefore, Natural England will expect to be included in any discussions concerning the results of the pre-construction surveys and monitoring programme during this time.	NE will be included in discussions on the results of the preconstruction surveys and how these then feed into the EMP.

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
1.2.56	Natural England/ESC/SCC/Suffolk Wildlife Trust	1	2	**Schedule of Mitigation, R21 and EMP** The Schedule of Mitigation [APP-575] repeatedly refers to adherence to the EMP as the mitigation but no draft EMP is provided. R21 requires the EMP to accord with the OLEMs. Are you satisfied that the OLEMs provides sufficient detail/certainty of specific mitigation measures and is there sufficient information for preparing future LMP(s)/EMP(s)?	An outline EMP is provided within ***Section 10*** of the ***OLEMS*** (APP-584). This document details the specific mitigation measures that have been identified based on the results of the surveys undertaken to date.	Please see our comments at Deadline 2 Appendix C5	See the Applicants' responses to Appendix C5 in ***section 1.3***.
1.2.59	The Applicant/Natural England/ESC/SCC/Suffolk Wildlife Trust	1	2	**Pre-construction surveys** A number of pre-construction ecological surveys are proposed prior to the production of the EMP(s). a) How are the pre-construction surveys secured? b) Should they be individually listed in R21?	The Applicants will submit an updated ***OLEMS*** (APP-584) into the Examination at Deadline 3, which will include a list of the pre-construction ecology surveys to be undertaken. The Applicants consider that specifying the pre-construction ecology surveys via the ***OLEMS*** (APP-584) is the appropriate mechanism for securing these as Requirement 21(2)) of the ***draft DCO*** (APP-023) requires an EMP (which accords with the ***OLEMS***) to be submitted and approved by the relevant planning authority in consultation with the relevant statutory nature conservation body prior to onshore preparation works (including environmental surveys) being carried out.	Please see our response (Appendix K1) to ExA Questions at Deadline 1 [REP1-159].	See the Applicants' response to NE's answer to this question in REP2-014.
1.2.61	The Applicant/ ESC/SCC/Suffolk Wildlife Trust	1	2	**Biodiversity Net Gain and enhancement** SCC and ESC have raised concerns regarding the lack of commitment to biodiversity and net gain. Whilst noting that DEFRA has confirmed that Net Gain is not applicable to NSIPs in the UK Government's' draft Environment Bill, paragraph 5.3.4 of NPS EN-1 states that the Applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests. a) Please could the Applicant provide an explanation of how they consider the application has taken advantage of enhancing biodiversity? b) Please could Natural England/ESC/SCC/Suffolk Wildlife Trust give a reasoned response on whether they consider the project accords with paragraph 5.3.4 of NPS EN-1.	The Applicants have submitted an ***Ecological Enhancement Clarification Note*** (document reference ExA.AS-16.D1.V1 EA1N&EA2) into Examination at Deadline 1. The Applicants consider that this document demonstrates how they have considered enhancing biodiversity within the Applications and addresses the concerns raised by SCC and ESC. The Applicants confirm that matters pertaining to biodiversity and ecological enhancement are captured within the SoCGs with SCC and ESC.	Please see Natural England Deadline 2 response Appendix C4 for our comment on EEC.	See the Applicants' responses to Appendix C4 in ***section 1.2***.

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
				Please can you ensure that matters pertaining to biodiversity enhancement are included in the SoCGs			
1.2.64	The Applicant	1	2	**Updated assessments** The Applicant has stated that there were errors within the ES of the importance assigned to some nationally protected species [AS-036]. Can you please confirm when a review and reassessment will be submitted into the Examination?	The Applicants understand that this statement relates specifically to the level of importance assigned badgers, as per the Relevant Representation submitted by Natural England (RR-059) and subsequently raised by ESC and SCC within the SoCG (document reference ExA.SoCG-2.D1.V2). The Applicants have submitted an ***Onshore Ecology Clarification Note*** (document reference ExA.AS-12.D1.V1 EA1N&EA2) into the Examination at Deadline 1, which provides an explanation and justification of the level of importance assigned to badgers. This information has been presented and agreed with ESC and SCC as part of the SoCG process.	Please see Natural England Deadline 2 response Appendix C5	See the Applicants' responses to Appendix C4 in document reference ***section 1.2***.
1.2.66	The Applicant	1	2	**Hundred River crossing** Natural England in their RRs [RR-059] state that they would expect to see an assessment of alternative methods for the crossing of The Hundred River. Can the Applicant confirm whether such an assessment was undertaken and if so please can you submit this into the Examination?	Whilst no report was prepared at the time, consideration was given to the available methods for crossing the Hundred River. There are a combination of constraints and technical considerations at this location including: • The Hundred River itself; • The B1122 Aldeburgh Road; • Fitches Lane; • Residential properties; • The wooded area to the west of B1122 Aldeburgh Road) • The requirement to install six power cables (each spaced sufficiently apart to ensure thermal independence from each other), up to two fibre optic cables and up to two distributed temperature sensing cables for each Project within the crossing; • The unknown geological conditions in the area (and the need for a	Natural England is of the view that this response is insufficient to address our concerns and therefore we will give due consideration to the document once it is submitted.	No further comment

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
					trenchless technique to be undertaken in appropriate ground strata to ensure the integrity of the crossing); and • Technical constraints in the depth that the onshore cables can be laid, noting that deeper cabling will require larger cables to compensate for thermal build-up in the cables; The Applicants considered that there was insufficient lateral space and insufficient confidence in trenchless techniques at this location in order to include it as a viable means of crossing these obstacles. In all cases, trenchless crossing techniques would require specific plant and equipment deliveries and operation; additional work compounds and infrastructure; additional water supplies; additional waste generation and disposal; potentially caisson installation (depending on technique); and a considerably longer construction duration. Sufficient space and confidence exists to accommodate a wet or dry open trench crossing of the Hundred River and adjacent obstacles, allowing a clear plan for the works (including diversion/over pumping of the Hundred river and environmental mitigation measures) to be clearly set out within the Watercourse Crossing Method Statement (which requires approval from the relevant planning authority). Further information on the options considered will be presented within the ***Outline Watercourse Crossing Method Statement*** which will be submitted to Examination at Deadline 3.		
1.2.67	The Applicant	1	2	**Hundred River crossing** The Hundred River feeds into the Sandlings SPA. Is there any risk that works at the crossing could impact on the qualifying features of the SPA?	There is the potential for temporary indirect (disturbance, pollution) impacts on the qualifying features of the SPA during construction at the Hundred River crossing, as the Hundred River flows through the Sandlings SPA. However, this is anticipated to be temporary and considered not likely to	Natural England is of the view that this response is insufficient to address our concerns and therefore we will give due consideration to the document once it is submitted.	No further comment

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
					give rise to significant effects on qualifying features of the SPA. Works at the Hundred River will adopt appropriate mitigation measures and industry good practice to reduce the environmental impact of the works. Further (outline) information on the construction and mitigation measures at the Hundred River will be presented within the ***Outline Watercourse Crossing Method Statement*** which will be submitted to Examination at Deadline 3.		
1.2.68	The Applicant	1	2	**Badgers and Reptiles** Can the Applicant confirm whether they intend to submit an outline badger or reptile mitigation plan as per Natural England's request [RR-059]?	Final mitigation measures in relation to badger that will be implemented will be contained within the final approved EMP which will be prepared post-consent in accordance with Requirement 21 of the ***draft DCO*** (APP-023), and which must be approved by the relevant planning authority in consultation with the relevant statutory nature conservation body. Mitigation measures for badger will accord with those proposed and set out within ***Section 5.9*** of the ***OLEMS*** (APP-584). The Applicants do not consider it necessary to provide an outline mitigation plan for reptiles at this time. A residual impact of minor adverse significance upon this species has been concluded through the assessment presented in ***Chapter 22*** (APP-070). Appropriate mitigation measures are presented within ***Section 5.12*** of the ***OLEMS*** (APP-584) and these will be carried through and developed within the final EMP prepared post-consent in accordance with Requirement 21 of the ***draft DCO*** (APP-023), and which must be approved by the relevant planning authority in consultation with the relevant statutory nature conservation body. The outcome of the assessment and proposed mitigation measures in respect to reptiles has been presented to the Environment Agency, Natural England,	Natural England is concerned that such an approach by the Applicant may hinder a draft licence application and prevision of a Letter of No Inpedement	The Applicants are preparing a draft licence application for badger and for great crested newt in order to obtain a Letter of No Impediment for each species to submit to the Examination at a future deadline. The Applicants will ensure that the final mitigation measures in relation to badger and contained within the final approved EMP will align with the mitigation agreed within the draft licence application.

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
					Suffolk Wildlife Trust, ESC and SCC during the SoCG process and agreement from all parties has been obtained.		
1.2.69	The Applicant	1	2	**Natural England standing advice** Can the Applicant confirm whether the proposed mitigation for protected species accords with Natural England's standing advice for each? Where it departs from such advice please provide a justification.	The Applicants can confirm that all ecological mitigation proposed accords with Natural England's standing advice for each respective species, and that no departures from the standing advice have been incorporated into the mitigation measures proposed.	See Natural England's Deadline 1 response Appendix C1b [REP1-165].	See the Applicants' response to Appendix C1b in REP2-004.
1.2.70	The Applicant/Natural England/ESC/SCC/Suffolk Wildlife Trust	1	2	**Bats** ES Chapter 22 states as a worst case scenario it is assumed that the construction phase could result in approximately 11km of hedgerow being temporarily lost in the medium to long term (paragraph 196) which would represent an impact of at worst major adverse significance on bats. Please could you respond to the following points. a) Proposed mitigation includes reinstatement post construction which may take 5-7 years to establish. Appendix 6.4 of the ES – Cumulative Project Description [APP-453] does not include a programme of works for the onshore cable route. If the projects are constructed sequentially could the Applicant please confirm the maximum duration that they would anticipate that the hedgerows would be removed before reinstatement begins?	As part of embedded mitigation, hedgerow losses will be minimised where possible through removing only the minimal working width (e.g. 16.1m for important hedgerows). It is intended that hedgerow sections that have been removed at crossings will be reinstated in the first available planting season post-construction as part of the final approved Landscape Management Plan (secured by Requirement 14 of the ***draft DCO*** (APP-023)). This means that, for a single Project, it is anticipated that the time between removing and replacing the same section of hedgerow at a crossing would be 24 months. If the Projects are constructed sequentially, it is anticipated that each hedgerow would be affected for 48 months.	Natural England notes the longevity of the hedgerow gaps and advises that further mitigation is required where these gaps are close to bats roosts and known flying routes to foraging areas. This is due to interruption in existing linear flight lines and for some species sudden changes to familiar landscape which can lead to fragmentation of habitat and population interactions. Therefore mitigation in the form of temporary fencing/netting to artificially close the gap whilst not working and no lighting from dusk til dawn should be considered.	As per the Statement of Common Ground (SoCG) with East Suffolk Council and Suffolk County Council (REP1-072), the Applicants have agreed to the use of hurdles or similar methods on completion of construction to maintain links between hedgerow gaps to enable foraging, maintain commuting routes and for insects (food source for bats) to be encouraged. This commitment has been included within an updated ***OLEMS*** submitted to the Examinations at Deadline 3 (document reference 8.7).
1.2.73	The Applicant	1	2	**Woodland and hedgerows** Can the Applicant please respond to the following: a) Please can you provide a justification of why the three locations of woodland loss is unavoidable? b) Paragraph 190 of ES Chapter 22 [APP-070] states that at least an equivalent area of lost woodland will be replanted. Where would this be and when would it be planted? Could this replanting begin prior to the areas that would be lost? How is this secured? Mitigation included within Paragraph 193 of ES Chapter 22 states that planting above buried cables is provided for in the OLEMs. Could you	a) The Applicants provide an explanation for why three areas of woodland loss are unavoidable for each of the areas in turn below: **Onshore cable corridor crossing north of Fitches Lane in the vicinity of the TPO designated trees (approximately 0.9ha) (woodland west of Aldeburgh Road).** As per the principles set out within ***Section 4.92, Chapter 4*** (APP-052) the location of the onshore cable corridor is driven by the location of the onshore substations and the location of the	Natural England appreciates the clarification provided by the applicant on the loss of these three sections of woodland. We concur that the constraints within each location make it impossible to avoid all important habitats during cable route selection. However, if it is possible to reduce the width of the cable area within the cable corridor north of Fitches Lane to 16.1m, is it not possible to reduce the width at other locations where valuable woodland habitats will be lost?	Final details of the timescales of the planting of trees and the age of the trees planted will be provided in the final LMP post consent in consultation with the relevant local planning authority and SNCBs. The Applicants note that the woodland west of Aldeburgh Road (north of Fitches Lane) is the only area of woodland lost as a result of the onshore cable route construction. Other areas of woodland loss identified within the ES are associated with the construction of the onshore substations (0.1ha of Laurel Covert) and the offshore highways improvement works at the

ExA. Question Ref.	Question addressed to	ExA. Question	Applicants' Response	NE Comment	Applicants' Response
		draw the ExAs attention to this provision in the OLEMs?	landfall and principally aims to avoid residential titles (including whole gardens) where possible. The woodland loss north of Fitches Lane is a result of the onshore cable route crossing B1122 Aldeburgh Road in an area that avoids residential properties. The distribution of existing properties north and south of the B1122 Aldeburgh Road crossing location meant there was insufficient room to bring the cables across the road elsewhere. Given the combination of spatial constraints within this area (including the Hundred River, the B1122 Aldeburgh Road; Fitches Lane; residential properties; and the wooded area to the west of Leiston Road) and the technical requirement to install six power cables, up to two fibre optic cables and up to two distributed temperature sensing cables for each Project within the crossing, the Applicants considered that there was insufficient lateral space to accommodate trenchless crossing techniques in this location. As such, loss of woodland at this location was unavoidable. However, the Applicants have committed to a reduced onshore cable route width of 16.1m for each Project at this location (reduced from 32m) (***Table 22.4, Chapter 22*** (APP-070)). **A1094/B1096 junction highway improvement (approximately 0.1ha).** Vegetation removal at this location is required to provide the level of visibility splay as required by drivers exiting a junction into oncoming traffic, as stated within the Design Manual for Roads and Bridges (CD 123: Geometric design	We note the constraints outlined in the OLEMS within plate 3.4 and understand that the final Landscape Management Plan will be prepared post-consent in accordance with Requirement 14 of the draft DCO. Natural England advises that the location selected to provide mitigation for the loss of woodland appears suitable. We strongly recommend that the mitigation site is established or at the very least the trees within this mitigation area are in early stages of growth by the time the cable construction phase begins. Consideration should also be given to planting different aged trees to provide the appropriate mitigation.	junction of the A1094/B1069 (0.1ha) in order to achieve the required visibility splays for safety reasons.

ExA. Question Ref.	Question addressed to	ExA. Question	Applicants' Response	NE Comment	Applicants' Response
			of at-grade priority and signal controlled junctions). **Onshore substation in proximity to Laurel Covert (approximately 0.1ha).** The Applicants note that this woodland loss is required as a result of the onshore substation footprints as presented within the Applications (190m x 190m). b) Woodland will be planted within the ecological mitigation area west of Aldeburgh Road comprising Work No. 24 – see response to ExA. Questions Ref. 1.2.58. The timing of planting this woodland will be included within the final Landscape Management Plan prepared post-consent in accordance with Requirement 14 of the ***draft DCO*** (APP-023). It could be possible to plant this woodland prior to the felling of woodland as part of early planting proposals being discussed between the Applicants and ESC and SCC within the SoCG process (document reference ExA.SoCG-2.D1.V2). The Applicants signpost the Examining Authority to ***paragraph 102*** and ***plate 3.4*** of the ***OLEMS*** (APP-584) which highlights the constraints and possibilities of planting directly above and adjacent to onshore buried cables.		
1.2.80	The Applicant	**Marlesford Bridge** Considering the off-site highway works at Marlesford Junction includes a large land parcel, can the Applicant confirm whether ecological studies at this location have been undertaken, and if not, could the Applicant provide a reason for why these studies have not been undertaken?	No ecological assessment has been undertaken for the offsite highways works at Marlesford Bridge (Work No. 37), given the limited detail on the works required at this site, if indeed works are required at all. The scope and extent of works required at Marlesford Bridge will be defined post-consent during detailed design. Should a requirement for such works be identified, pre-construction ecological surveys would be undertaken for the species listed within the updated ***OLEMS*** (APP-584) and works	Natural England believes that a worst case scenario should be assessed as part of the consenting process to ensure that mitigation measures will reduce impacts to an acceptable level.	The Applicants maintain their previous response and note that the requirement for works at Marlesford Bridge (Work No. 37) is dependent on the port selected for the import of the transformers and an investigation into the structural integrity of the bridge which is not available at this stage from the local highway authority.

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					at Marlesford Bridge would be subject to the ecological mitigation measures within the final approved EMP in accordance with Requirement 21 of the ***draft DCO*** (APP-023).		

2.2.5 Onshore Ornithology

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
1.2 Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA)) **Onshore Ornithology**							
1.2.83	The Applicant	1	2	**HRA methodology** In Chapter 2 (HRA Methodology) of the HRA Screening Report [APP-044], the approach to the Stage 1 screening process (2.1.1.1) and the selection of sites with the potential to be affected by the Proposed Development is presented by the Applicant as being a general methodology applicable to all interest groups included at screening. However, the sub-header at 2.1.2 (Onshore Ornithology Screening Summary) suggests that the approach outlined may in fact be specific to this feature group only. Please clarify what should be considered as the Applicant's general approach to the Stage 1 screening process.	On reviewing ***Appendix 1 HRA Screening Report*** (APP-044) the Applicants note that ***Paragraph 40 - 42*** of (APP-044) as submitted with the Applications can be disregarded as these have been inserted in error. ***Paragraph 39*** and ***Paragraph 43*** of (APP-044) as submitted with the Applications should be read together, such that it reads: 'The initial identification of designated sites and Ramsar sites for inclusion in the Stage 1 HRA Screening is primarily based on the location of the site relative to the proposed [East Anglia TWO / East Anglia ONE North] project. The approach for each site interest feature is outlined in section 3 Terrestrial Ecology, Section 4 Onshore Ornithology, Section 5 Benthic Ecology, section 6 Fish Ecology, section 7 Marine Mammals and section 8 Offshore Ornithology.'	Please see Natural England's Deadline 2 response Appendix F8.	See the Applicants' response to Appendix F6 (noting the NE typographic error in the adjacent cell) in ***section 1.6***.
1.2.85	Natural England, Suffolk Wildlife Trust	1	2	**Sandlings SPA crossing** Please respond to the following: a) Whilst noting that open cut trenching is not your preferred option for the SPA crossing, please comment on the Applicant's explanation that open cut trenching would have less of an impact than HDD. Are you confident that there is sufficient certainty and security for the proposed mitigation relied upon by the Applicant in this scenario? b) Do you consider the need for any further mitigation beyond	Whilst not requested to respond on this question the Applicants wish to add that, considering the balance of other receptor topics considered within the EIA, it considers an open-trench SPA crossing methodology to be the less environmentally impactful given the shorter construction	Please note that the main focus of the Outline Sandling SPA crossing plan setting out how impacts to the desingated site features will be avoided, reduced and mitigated. For which Natural England's first preference would be a trenchless option to acheive this. Detailed	See the Applicants' response to Appendix C2 in REP2-004 and the Applicants' response to Appendix C2b in ***section 1.1***.

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
				that already set out by the Applicant?	duration and requirement for less plant. This has implications for the community such as reduced noise impacts, reduced HGV movements as well as less disturbance of ecological features.	mitigation measures that can deliver and can be demonstrated to be doing so through monitoring pre construction is required to support an open trench option. Please see Natural England Deadline 1 Appendix C2 [REP01-163] and Deadline 2 C2b responses	
1.2.86	The Applicant	1	2	**Sandlings SPA crossing** Please respond to the following: a) Proposed mitigation for works at the SPA crossing and within 200m includes a seasonal restriction. How is the SPA crossing area defined? Should this be linked to a works no. or can the Applicant provide a plan showing the extent of the area that would be subject to the seasonal restriction?	Further information on the SPA crossing methodology is provided in the ***Outline SPA Crossing Method Statement*** submitted at Deadline 1 (document reference ExA.AS-3.D1.V1 EA1N&EA2). This ***Outline SPA Crossing Method Statement*** relates to works associated with the installation of cables through the Sandlings SPA to the extent that these fall: • Within the SPA boundary (the SPA crossing), located within Work No. 12 as shown on the ***Works Plans (Onshore)*** (AS-003); and • Within 200m of the SPA crossing (the SPA crossing buffer) located within Work Nos. 11 and 13, as shown on the ***Works Plans (Onshore)*** (AS-003). ***Figure 6*** of the ***Outline SPA Crossing Method Statement*** (document reference ExA.AS-3.D1.V1 EA1N&EA2) illustrates the area subject to a seasonal restriction under an open trench SPA crossing methodology scenario. ***Figure 8*** of the ***Outline SPA Crossing Method Statement*** illustrates the area subject to a seasonal restriction under a trenchless SPA crossing methodology scenario.	Please see Natural England Deadline 2 response Appendix C2b.	See the Applicants' response to Appendix C2b in ***section 1.1***.
1.2.91		1	2	**Landfall** a) In light of the sensitivity of the inter-tidal area is sufficient	The Applicants have committed to locating the onshore HDD entry / exit	Natural England notes that the requirement as drafted does not	The Applicants have consulted with Natural England on the ***Outline***

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
	The Applicant/ESC/ SCC			information currently provided to secure the embedded mitigation of HDD at landfall?	pit outside of the Leiston-Aldeburgh Site of Special Scientific Interest (SSSI) (see ***paragraph 69***, ***Chapter 23*** (APP-071)). Requirement 13 of the ***draft DCO*** (APP-023) requires the production and implementation of a landfall construction method statement, which must be approved by the relevant planning authority prior to the commencement of construction activities associated with Work No. 6 or Work No. 8. The Applicants have prepared an ***Outline Landfall Construction Method Statement*** which is submitted to the Examination at Deadline 1 (document reference ExA.AS-2.D1.V1 EA1N&EA2). This outline document sets out the principles with which the final Landfall Construction Method Statement must accord. An updated version of the draft DCO will be submitted at Deadline 3 which include an amendment to Requirement 13 to require the final Landfall Construction Method Statement to be in accordance with the Outline Landfall Construction Method Statement.	require a consultation with the relevant SNCB. Given the potential ecological sensitivities we consider that the condition should include a requirement to consult the SNCB to ensure the proposed method and mitigation are appropriate.	***Landfall Construction Method Statement*** submitted to the Examination at Deadline 1 (REP1-042) and will continue to engage with Natural England throughout the Projects. The Applicants do not consider it necessary to include Natural England as a consultee on the final Landfall Construction Method Statement within the wording of Requirement 13 in the ***draft DCO*** (APP-023), but anticipate to consult with Natural England on the preparation of the method statement regardless.
				b) Should the dDCO provide additional clarification/detail such as through the expansion of R13 to set out what should be included?	The Applicants have provided additional detail within the ***Outline Landfall Construction Method Statement*** which has been submitted into the Examination at Deadline 1 (document reference ExA.AS-2.D1.V1 EA1N&EA2). In light of this, the Applicants do not consider it necessary to amend the wording of Requirement 13 of the ***draft DCO*** (APP-023).		
1.2.92	The Applicant	1	2	**Cable parameters** Please provide a plan showing the maximum working widths for the onshore cable route set out in R12(14)(a) in relation to the Leiston-Aldeburgh SSSI and Sandlings SPA from landfall to the SPA crossing area.	The Applicants have provided two figures (***Appendix 6*** of this document (document reference ExA.WQ-1.A6.D1.V1)) illustrating an indicative onshore cable route between the landfall and the Sandlings SPA under	Please see Natural England Deadline 2 response Appendix C2b.	See the Applicants' response to Appendix C2b in ***section 1.1***.

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
					an open trench and trenchless SPA crossing methodology. These show the maximum extent of the working widths as per Requirement 12(14)(a) of the ***draft DCO*** (APP-023).		
1.2.93	NE/ESC/SCC/ Suffolk Wildlife Trust	1	2	**Nightingale** The proposed mitigation for nightingale includes the creation of habitat somewhere where the onshore development area overlaps the SPA/SSSI. This is deferred to the EMP. Are you confident that such a suitable area can be found?	The Applicants wish to highlight that a nightingale mitigation area overlapping with the SPA/SSSI area has been identified and is presented within the ***Outline SPA Crossing Method Statement*** (document reference ExA.AS-3.D1.V1 EA1N&EA2). It should be noted that nightingale mitigation is only required under an open trench SPA crossing method (given there will be no impact upon nightingale associated with a trenchless crossing of the SPA).	Please see Deadline 2 response Appendix C2b.	See the Applicants' response to Appendix C2b in ***section 1.1***.

2.3 Landscape and Visual Impact

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
1.10 Landscape and Visual Impact							
1.10.13	The Applicant, Natural England	1	2	ES Chapter 29, paragraph 180 [APP-077] sets out that the susceptibility of the Ancient Claylands LCT is reduced as the landscape is influenced by the presence of the existing double row of high-voltage overhead transmission lines, with changes experienced in the context of existing electrical infrastructure and large-scale elements. However, there is a clear difference between a double row of high level largely see through transmission lines when compared to the proposed extent and density of ground level infrastructure. a) To what extent do you consider that the susceptibility of the Ancient Claylands LCT to change is reduced by the presence of the existing overhead transmission lines? b) Compare and contrast in landscape character terms the existing effects of the overhead transmission lines and the proposed substation development. To Natural England: Do you agree with the applicant's assessment of the susceptibility of the Ancient Claylands LCT to changes arising from the proposed developments?	a) As stated in paragraph 180 of ES ***Chapter 29*** (APP-077), on balance the LCT is assessed as having a medium-high sensitivity to changes arising from the onshore infrastructure. The presence of the double row of high-voltage overhead transmission lines and associated pylons is described as a mitigating factor, because they (in particular the pylons) form notable visual elements in the local setting of the landscape between the village of Friston and Fristonmoor and due to their large vertical scale and form. They are considered to exert an important influence on the way that the landscape is experienced, such as from the PRoWs to the north of Friston which pass directly under the double row of high voltage overhead pylons and electrical lines (VP1 – ***Figure 29.13a*** (APP-404)); forming large scale elements crossing the view south from Fristonmoor to Friston (VP5 – ***Figure 29.17a*** (APP-408)) or in forming a backdrop to views of Friston village (VP9 – ***Figure 29.21a*** (AAP-412)). These components notably influence the present-day aesthetic and perceptual (scenic) qualities of the landscape and therefore influence its sensitivity to changes arising from the proposed onshore infrastructure. b) The existing effects of the double row of high voltage overhead pylons and electrical lines on landscape character arise from the vertical scale / form of the pylons and linearity of the route/electrical lines crossing the landscape. In the area north of Friston, the route of the pylons and	As previously advised this refers to an area outside the AONB. NE does not provide bespoke landscape planning advice for elements of the scheme which do not affect the AONB. The Local Planning Authority may wish to comment based on their knowledge of the area.	No further comment

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			electrical lines does not follow a straight line passing the landscape, but instead turns at the deviation towers near Peartree Farm. Its deviated route increases its encompassing / surrounding influence on the local landscape character of the onshore substations location because the pylons are situated both to the west, north and north-east of the substation area. The existing pylons are of much larger vertical scale than the proposed substations (up to 59.2m above ground level), and in terms of vertical scale have a greater visual prominence, with a wider zone of visibility; although their high level and wide spacing means that they tend to be perceived as being above the human scale and traversing the landscape, rather than 'within it', when compared to the proposed footprint and density of lower height, ground level substation infrastructure. The influence of the high voltage overhead pylons and electrical lines on landscape character is noted as a form of visual intrusion in the Suffolk Coastal Landscape Character Assessment (LCA) (2018). Although not specifically referring to the area north of Friston, but more generally describing their influence on the Estate Sandlands and Estate Claylands LCTs, it notes the *"double row of giant pylons'*, as being *"detracting features passing north of Aldringham"* and as having a "*substantial negative impact in the more open areas"*, and that they *"distort the sense of scale within the landscape"*. It also notes *"views of 20th century development are less attractive, especially when oversailed by the pylons"*; and as being		

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					"dominant where they sail overhead" but that *"away from their corridor they are often not seen owing to effect so many parcels of woodland"*. The visual containing influence of woodland around the onshore substations is noted in the ES ***Chapter 29*** (APP-077), which together with the relatively lower height of the substation infrastructure proposed, results in a relatively contained geographic extent of effects (within approximately 1.0km) but with effects on the character of this local landscape being of high magnitude and significant, primarily due to the introduction of large-scale buildings and complex electrical infrastructure, increasing the influence of development components in the landscape, as described in ES ***Appendix 29.3*** (APP-567) ***section 29.3.1***.		
1.10.22	The Applicant, Natural England	1	2	Natural England [RR-059, Appendix D] raise issues in respect of highlighting the need for considering and potentially committing to simultaneous construction of the onshore cabling for both projects should they both be approved, as a form of mitigation to limit construction phase landscape and visual impacts to the short term. They note that in their view the importance of the AONB (a nationally designated landscape with the highest level of planning policy protection) justifies the most effective mitigation being applied i.e. both onshore cabling stages to be completed together and the landscape fully restored as soon as possible. The ExA note the responses of the Applicant to this point of view in their response to the RR [AS-036] that the projects are being developed by two separate companies, are two separate projects and will have two separate Development Consent Order consents.	a) The Applicants are currently investigating the possibility of installing ducts for both projects in parallel should the Projects be built sequentially. An update will be provided at Deadline 2.	This is Natural England's main issue with regard to the two schemes. We welcome the news that the Applicant is investigating the possibility of installing both projects in parallel and look forward to the promised update at Deadline 2.	As outlined in the Project Update Note submitted at Deadline 2 (REP2-007), the Applicants can now confirm that should both the East Anglia ONE North project and the East Anglia TWO project be consented and then built sequentially, when the first project goes into construction, the ducting for the second project will be installed along the whole of the onshore cable route in parallel with the installation of the onshore cables for the first project. This will include installing ducting using a trenchless technique at the landfall for both Projects at the same time. Further information will be provided at Deadline 3.

ExA. Question Ref.	Question addressed to			ExA. Question	Applicants' Response	NE Comment	Applicants' Response
				a) Can any assurances be provided of the likelihood (or not) of financing being secured for both projects in parallel and works being carried out concurrently? To Natural England: If the projects are not able to be carried out together, provide further views and comments on the effects of the proposals on the AoNB			
1.10.23	The Applicant, Natural England	1	2	Natural England [RR-059, Appendix D] note that there is a limited amount of detail as to how construction activities would proceed along the cable route in and close to the Suffolk Coast and Heaths AONB and how soon after commencement all signs of construction activity would be removed from the AONB. The ExA note the responses of the applicants to this point of view in their responses to the RRs [AS-036] and notes that there is no commitment to an anticipated timetable and / or schedule for how construction activities would progress along the cable route within the immediate setting of the AONB and specific durations of Construction Consolidation Sites (CCSs) and construction activity and that this will be considered as part of detailed design once a contractor is appointed. Provide further information on the above, including: a) Further justification as to why an anticipated timetable / schedule for how construction activities would progress along the cable route within and in the immediate setting of the AONB, including details of the undergrounding works within and in the immediate setting of the AONB, covering both the topsoil stripping/trenching (and HDD if relevant) and backfilling/ reinstatement of the cable route cannot be provided (if still the case) b) An assessment of how such construction activities and their removal, including construction consolidation sites, would impact on the character and setting of the AONB, particularly given the unknowns at the present time.	a) Flexibility to accommodate open trench laying or ducting of the onshore cables is required. The proposed methodology will be determined following detailed design and a construction programme will be established at that time. Supply chain engagement, procurement and contractor availability will also influence the final construction sequence and programme. b) An assessment of how such onshore cable route construction activities (including Construction Consolidation Sites), would impact on the character and special qualities of the AONB (Area A between Thorpeness, Sizewell and Leiston) is provided in ***Appendix 29.3*** (APP-567) page 40-44. c) It is anticipated that reinstatement works will take place within 12 months of completion of the relevant stage of the onshore works (see section 6.9.7 (APP-054) of the ES). Details of proposed reinstatement of trees, hedgerows and other landscape features are provided within the ***OLEMS*** (APP-584) and will be secured through the approval and implementation of the LMP in accordance with Requirements 14 and 15 of the ***draft DCO*** (APP-023). d) See c).	Natural England still queries if further information could be forthcoming.	See above response to 1.10.22. The Applicants also refer to the ***Programme of Onshore Works*** submitted to the Examinations at Deadline 3 (document reference ExA.AS-10.D3.V1)

ExA. Question Ref.	Question addressed to	ExA. Question	Applicants' Response	NE Comment	Applicants' Response
		c) The timetable for and details of the reinstatement of trees, hedgerows and other landscape features lost during the construction phase and confirmation whether such information could be secured as part of the DCO. d) Any suggested proposals to mitigate the effects of the inability to provide an anticipated timetable/schedule and how they might be secured For Natural England e) Provide your comments on the responses of the applicant			