East Anglia ONE North and East Anglia TWO Offshore Windfarms

Applicant's Comments on Relevant Representations

Volume 3: Technical Stakeholders

Applicant: East Anglia TWO Limited
Document Reference: ExA.RR3.D0.V1
SPR Reference: EA1N_EA2-DWF-ENV-REP-IBR-000971

Date: 11th June 2020
Revision: Version 1
Author: Royal HaskoningDHV

Applicable to East Anglia ONE North and East Anglia TWO

Revision Summary				
Rev	**Date**	**Prepared by**	**Checked by**	**Approved by**
01	08/06/2020	Paolo Pizzolla	Julia Bolton/Ian Mackay	Rich Morris

Description of Revisions			
Rev	**Page**	**Section**	**Description**
01	n/a	n/a	n/a

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2	Wave Climatology Clarification Note
3	Fish and Shellfish Ecology Clarification Note
4	Offshore Ornithology Precaution Note
5	Outer Thames Estuary Cabling Note
6	Figure 1 Disposal Site Locations (Windfarm Site)
7	Offshore Windfarm Visibility and Visual Impact Threshold Distances (2012) Journal Article
8	JNCC (2020) Guidance for Assessing the Significance of Noise Disturbance Against Conservation Objectives of Harbour Porpoise SACs

Glossary of Acronyms

ABP	Associated British Ports
ACoW	Arboricultural Clerk of Works
AEoI	Adverse Effect on Integrity
AIL	Abnormal Indivisible Loads
AIS	Air Insultaed Swithgear
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
APP	Application Document
AQMA	Air Quality Management Area
AQMP	Air Quality Management Plan
AR	Avoidance Rate
BBPP	Breeding Bird Protection Plan
BCT	Bat Conservation Trust
BDMPS	Biologically Defined Minimum Population Sizes
BEIS	Department for Business, Energy & Industrial Strategy
CCS	Construction Consolidation Sites
CfD	Contract for Difference
CFWG	Commercial Fisheries Working Group
CIA	Cumulative Impact Assessment
CION	Connection and Infrastructure Options Note
CLO	Community Liaison Officer
CoCP	Code of Construction Practice
COLREGS	International Convention for the Prevention of Collision at Sea
CMS	Construction Method Statement
CRM	Collision Risk Model
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
DECC	Department of Energy and Climate Change
DEFRA	Department for Food Agriculture and Rural Development
DEPONS	Disturbance Effects of Noise on the Harbour Porpoise Population in the North Sea
DML	Deemed Marine Licence
DMO	Destination Mangement Organisation
EC	European Commission
EcIA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
EDR	Effective Deterrent Range
EIA	Environmental Impact Assessment
EMF	Electromagnetic Fields
EMP	Ecological Management Plan
EPP	Evidence Plan Process
EPS	European Protected Species
ERCOP	Emergency Response Cooperation Pla
ES	Environmental Statement
ESC	East Suffolk Council
ETG	Expert Topic Group
ExA	Examining Authority
FFC	Flamborough & Filey Coast
FLCP	Fisheries Liaison and Co-existence Plan
FLO	Fisheries Liaison Officer
FLOWW	Fishing Liaison with Offshore Wind and Wet Renewables Group
FRA	Flood Roisk Assessment
FTE	Full Time Equivalent

GEART	Guidelines for the Environmental Assessment of Road Traffic
GIS	Gas Insulated Switchgear
GPS	Global Positioning Satellite
HDD	Horizontal Directional Drill
HE	Historic England
HGV	Heavy Goods Vehicle
HLC	Historic Landscape Characterisation
HRA	Habitats Regulation Assessment
IALA	International Association of Lighthouse Authorities
IAQM	Institute of Air Quality Management
ICNRR	International Commission on Non-ionizing Radiation Protection
IEMA	Institute of Environmental Management and Assessment
IHLS	International Herring Larvae Survey
ILE	Institute of Lighting Engineers
IOF	Important Ornithological Features
IP	Interested Party
LCT	Landscape Character Type
LCV	Light Commercial Vehicle
LGV	Light Goods Vehicles
LLFA	Lead Local Flood Authority
LMP	Landscape Management Plan
LVIA	Landscape and Visual Impact Assessment
MCA	Martirime and Coastguad Agency
MCLG	Ministry of Housing, Communities & Local Government
MGN	Marine Guidance Note
MHWS	Mean High Water Springs
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Management Organisation
MOD	Minstry of Defence
MoU	Memorandum of Understanding
MPA	Marine Protected Area
MSFD	Marine Strategy Framework Directive
MSS	Marine Scotland Science
NALEP	New Anglia Local Enterprise Partnership
NATS	National Air Traffic Service
NE	Natrual England
NFFO	National Federation of Fishermen's Organisation
NGET	National Grid Electricity Transmission
NNR	National Nature Reserve
NO_2	Nitrous Oxide
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NRA	Navigational Risk Assessment
NSIP	Nationally Signficant Infrastructure Project
NtM	Notices to Mariners
OFTO	Offshore Transmission Owner
OLEMS	Outline Landscape and Ecological Management Strategy
OLMP	Outline Landscape Management Plan
ONR	Office for Nuclear Regulation
OREI	Offshore Renewable Energy Installation
ORJIP	Offshore Renewables Joint Industry Programme
OTP	Outline Travel Plan
OWSI	Outline Written Scheme of Investigation
OWSMF	Offshore Wind Strategic Monitoring Forum
PEIR	Preliminary Environmental Information Report
PHE	Public Health England

PIDs	Public Information Days
PPG	Planning Practice Guidance
PRoW	Public Rights of Way
PRoWS	Public Rights of Way Strategy
PSA	Particle Size Analysis
RAG	Red Amber Green
REPPIR	Radiation (Emergency Preparedness and Public Information) Regulations
RoC	Review of Consents
RPG	Registered Parks and Gardens
RSPB	Royal Society for the Protection of Birds
RYA	Royal Yachting Association
SAC	Special Area of Conservation
SCC	Suffolk County Council
SCCAS	Suffolk County Council Archaeology Service
SEA	Strategic Environmental Assessment
SEL	Sound Exposure Level
SIP	Site Integrity Plan
SLVIA	Seascape, Landscape and Visual Amenity
SNH	Scottish Natural Heritage
SNS	Southern North Sea
SoCC	Statement of Community Consultation
SoCG	Statement of Common Ground
SOLAS	International Convention for the Safety of Life at Sea
SoS	Secretary of State
SPA	Special Protected Area
SPL	Sound Pressure Level
SPR	ScottishPower Renewables
SSC	Suspended Sediment Concentrations
SSSI	Site of Special Scientific Interest
STEM	Science, Technology, Engineering, and Mathematics
SuDS	Sustainable Drainage System
SZC	Sizewell C
TP	Travel Plan
TWT	The Wildlife Trust
UXO	Unexploded Ordnance
WDC	Whale and Dolphin Conservation
WFD	Water Framework Directive
WSI	Written Scheme of Investigation
WTG	Wind Turbine Generator
ZTV	Zone of Theoretical Visibility

Glossary of Terminology

Applicant	East Anglia TWO 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 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. The Applicant's comments on Relevant Representations received from Interested Parties (IPs) for East Anglia TWO ('the Project') have been separated into separate Volumes, as discussed in ***Volume 1*** (document reference ExA.RR1.D0.V1).

2. This Volume presents the Applicant's comments on Relevant Representations received from IPs which have been identified as local authorities, parish councils, statutory consultees, non-statutory organisations. The Applicant's comments on these Relevant Representations have been provided in ***Table 1*** to ***Table 67*** below.

3. In accordance with the ExA's procedural decisions on document management of 23rd December 2019, this document is applicable to both the East Anglia ONE North and East Anglia TWO Applications (with the exception of the Glossary of terminology and Introduction and the specific sections listed in ***paragraph 4*** below). It is therefore largely endorsed with the yellow and blue icon used to identify materially identical documentation. Where a section differs between the East Anglia ONE North and East Anglia TWO ('the Projects'), the coloured box in the headers and the colour of the section headings will reflect this as well as text in the footers.

4. Relevant Representations submitted by the following IPs differed between the Projects and therefore the coloured box in the headers and the colour of the section headings reflects this:

    - East Anglia ONE North Limited (***section 4.4***);
    - Eastern Inshore Fisheries Conservation Authority (***section 4.6***);
    - Iken Parish Council (***section 3.6***)
    - Marine Management Organisation (***section 4.12***);
    - National Air Traffic Service (***section 4.15***);
    - Natural England (***section 4.18***) and
    - Rijkswaterstaat (***section 5.5***).

2 Comments on Local Authorities Relevant Representations

5. The Applicant's comments on Relevant Representations received from local authorities can be found in ***Table 1*** to ***Table 4*** below.

2.1 East Suffolk Council (RR-002)

Table 1 Applicant's Comments on East Suffolk Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	East Suffolk Council recognises the national benefit these projects will bring in helping to meet renewable energy targets and creating sustainable economic growth in Suffolk provided this is achieved without significant damage to the local built and natural environment, local communities and tourist economy. The local impacts of the projects and their cumulative impacts should be considered and adequately addressed by the promotor.	The Applicant notes and agrees with East Suffolk Council's recognition that the Project will bring national benefit to meeting renewable energy targets and create sustainable economic growth in Suffolk. The Applicant considers that the potential impacts and cumulative impacts have been adequately addressed throughout the Environmental Impact Assessment (EIA). ***Section 5.5*** of the ***Development Consent and Planning Statement*** (APP-579) describes the policy case for the development with regards to economic growth and provides examples of how the Project (and Projects) will help create sustainable economic growth in Suffolk: • An increased use of local accommodation and businesses during off peak season for tourism is expected (***section 30.6*** of ***Chapter 30 Tourism, Recreation and Socio-Economics)*** as a benefit of the project; and • The assessment establishes that employment benefits of the Project would create an estimated peak employment of over 300 staff per day during onshore construction and between 100 to 300 Full Time Equivalent (FTE) jobs for offshore construction within East Anglia. As context for these benefits, ScottishPower Renewables (SPR) (of which the Applicant, is a wholly owned subsidiary) is currently constructing the East Anglia ONE project (due to be fully operational in 2020) and has gained consent for East Anglia THREE. Examples of the already established socio-economic benefits of these already consented projects to local businesses include: • In 2015, SPR agreed a 30-year contract worth £25 million for the Port of Lowestoft to be the operations and maintenance (O&M) and construction

No.	Relevant Representation	Applicant's Comments
		management base for East Anglia ONE, creating significant employment for local people and future graduates (SPR 2018)[1]; • SPR and the Associated British Ports (ABP) have awarded contracts totalling £10 million for development of the Port of Lowestoft (SPR 2018), and • Once the state-of the-art operations and maintenance facility has been designed and constructed, around 100 full-time jobs will be created for East Anglia ONE, with thousands of contractors and supply chain operators using the site every year.
002	Landscape and Visual Effects – The applicant has not fully understood the character and significance of the features and landscape elements of the site, especially in relation to the historic landscape character and therefore the Environmental Statement does not fully recognise the harm caused by the development. The effectiveness of the proposed mitigation planting has not been adequately justified especially as the assumed growth rates are not reasonably likely to be achieved in the prevailing local conditions. The visualisations are not considered reliable with the inclusion of unsecured preconstruction planting and trees, and vegetation that is seemingly of significantly greater maturity than the 15 years specified. The mitigation planting will therefore be largely ineffective for many more years than is claimed.	It is noted by the Applicant that the presence of the onshore substation and National Grid infrastructure will represent a permanent / long-term change to the historic landscape character (HLC) to the west of Coldfair Green (and more specifically the northwest of Grove Wood) within and immediately surrounding the onshore substation location. However, the Applicant has demonstrated that implementation of mitigation measures is feasible. The Applicant considers that the growth rates outlined are appropriate and achievable, as covered in full detail below. ***Appendix 29.3*** (APP-567) has been produced following guidance from Natural England 'An Approach to Landscape Character Assessment'. The assessment considers the relevant Landscape Character Types (LCTs) defined in the Suffolk County Council Landscape Character Assessment (Suffolk County Council, 2008/2011) as agreed with the LVIA ETG and informs the conclusions drawn in the assessment in ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077). With regards to mitigation planting, as set out in ***section 3.5.4*** of the ***Outline Landscape and Ecological Management Strategy (OLEMS)*** (APP-584)), assumed growth rates are based on relevant guidance from the Institute of Environmental Management (IEMA), research of relevant published literature

[1] SPR (2018) The East Angle: https://indd.adobe.com/view/32f46fba-ef4b-48df-9b0a-9db3626b2470

No.	Relevant Representation	Applicant's Comments
		and plant nurseries, and are comparable to precedents established by other Nationally Significant Infrastructure Projects (NSIPs). The Applicant held ETG meetings in which growth rates were discussed with the local planning authority **(Table 3.1** of the ***OLEMS*** (APP-584)). ***Section 3.5.4*** of the ***OLEMS*** (APP-584) provides information on the assumed growth rates of trees utilised for landscaping. The Applicant is in ongoing discussions with the local planning authorities regarding visualisations through the SoCG process. A range of tree heights within the upper and lower height ranges will be shown in the photomontages which will be provided within a Photomontages Methodology Clarification Note which will be submitted during Examination. This will provide a representation of likely differences in growth and generally a more realistic appearance of the woodland areas in the photomontages. It is recognised by the Applicant that monitoring of the planting is an important element in the management and verification of the actual impacts based on the final detailed design. Monitoring surveys would be discussed and agreed with the Local Planning Authority and included within the relevant management plan(s), submitted for approval to discharge relevant DCO requirements, prior to construction works commencing (***section 9*** of the ***OLEMS***). Requirement 14 of the ***draft DCO*** (APP-023) states that the Applicant cannot commence onshore works until a written Landscape Management Plan (LMP) has been submitted to and approved by the local planning authority. The plan must accord with the ***OLEMS*** (APP-584) and include details of the ongoing maintenance and management of the landscaping works. Requirement 15 of the ***draft DCO*** (APP-023) requires all landscaping works to be carried out in accordance with the approved landscape management plan and in accordance with the relevant recommendations of appropriate British Standards.
003	Landscape and Visual Effects – The applicant has not demonstrably exhausted all reasonable measures to minimise the impacts of the permanent onshore	The Applicant notes concerns regarding impacts of the onshore substation and national grid substations due to their size and scale.

No.	Relevant Representation	Applicant's Comments
	substations. It is essential that the size and scale of the proposals is minimised with careful consideration given to the layout of the site, building design and materials.	As described in ***section 29.3.3*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077), National Grid's Guidelines on Substation Siting and Design (The Horlock Rules) have been taken into consideration during the site selection process. Those relevant to the LVIA include the following: • To avoid landscape designations including National Parks and AONBs. • To protect areas of local amenity value including ancient woodland and historic hedgerows • To take advantage of screening provided by landform and existing features. The selected onshore substation location avoids all international, national, county and local landscape designations. It does not affect any ancient woodland and mitigation measures ensure hedgerow loss which would occur is compensated for in new planting around the onshore substation. The site benefits from existing natural screening provided by Grove Wood and Laurel Covert, as well as other smaller tree blocks and hedgerows surrounding the site. These landscape features provide screening principally from the east and create a wooded backdrop in views from other directions, below which the height of the onshore substation and National Grid substation will be contained and in so doing, contribute to the mitigation of landscape and visual effects. Full details of all the measures taken by the Applicant to minimise the potential impacts of the substations during the site selection process are provided in ***section 4.9*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052) The maximum sizes of the key onshore substation parameters are provided in ***Table 6.27*** of ***Chapter 6 Project Description*** (APP-054) and National grid substation parameters are provided in ***Tables 6.38*** and ***6.29***. The size of the onshore infrastructure has been determined through the Rochdale Envelope approach (see ***section 3.5 of Chapter 3 Policy and Legislative Context*** (APP-051) which sets out a series of realistic design assumptions from which worst case parameters are drawn for the Project. The project design envelope has a

No.	Relevant Representation	Applicant's Comments
		reasoned maximum extent for a number of key parameters. The final design would lie within the maximum extent of the consent sought. The physical footprint of the onshore substations are determined by: • Feasible technology (e.g. AC or DC transmission); • The size of infrastructure (e.g. the size of cables, size of building or equipment) which is determined by technology; • The number of each element required (e.g. cables, transformers, etc.); • Minimum spacings required for safe and efficient construction and operation (e.g. cable spacing); • Required stand-offs or crossing requirements (e.g. to other infrastructure or watercourses); • Other constraints (e.g. hard constraints or required buffers from human or environmental constraints), topography and natural features; • Construction methodology (e.g. open trench or trenchless technique) and construction sequencing which is dependent upon constraints; • Access and storage (including spoil); • Drainage; and • Welfare and security. Post consent, the Applicant would design the onshore substation to the capacity of electricity required to be converted and to accommodate the technology at that time which is economically available from the supply chain. The final design would lie within the maximum extent of the consent sought. The final onshore substation design would be developed post-consent. ***Section 3*** of the ***Outline Onshore Substation Design Principles Statement*** (APP-585) summarises the outline design principles that the Applicant will use as the foundation for developing the final Onshore Substation Design Principles post-

No.	Relevant Representation	Applicant's Comments
		consent, as part of the discharging of requirements of the ***draft DCO*** (APP-023). These include: • Continued engagement with Parish Councils, local residents and relevant authorities (Suffolk County Council and East Suffolk Council) on design and landscape proposals. • The landscape and building design proposals be subject to design review, in consultation with the relevant local authorities. • Consideration of 'Good Design' in line with the requirements of Overarching National Policy Statement for Energy (NPS-EN-1). • Appropriate building design and materials will be actively sought as part of the procurement process. Requirement 12 of the ***draft DCO*** (APP-023) provides that no stage of the substation can commence until details of the layout, scale and external appearance of the onshore substation have been submitted to and approved by the relevant local planning authority, and the substation construction must then be carried out in accordance with those approved details. The details must accord with the outline onshore substation design principles statement and be within the Order limits. Embedded mitigation measures also include a commitment to external harmonic filters which facilitated a significant reduction in maximum building height of the onshore substation from 21m to 15m during the pre-application stage. More detail regarding the design principles which underpin the design of the operational onshore substation is provided in the ***Outline Onshore Substation Design Principles Statement*** (APP-585). The operational footprints of the onshore substation and National Grid substation will be reviewed through the detailed design phase of the project post-consent.

No.	Relevant Representation	Applicant's Comments
004	Noise and Vibration – There are concerns regarding the adequacy of the noise assessment which it is considered underestimates the operational noise impacts at the substation site. The Council has concerns regarding the modelling of the noise sources, omission of noise from National Grid infrastructure, rating level, assessment of background noise levels, omissions from the assessment and validity of the assessment method utilised. Further information is required before the Council can determine whether the construction assessment is a representative assessment of construction noise and vibration.	The Applicant notes concerns regarding the noise assessment undertaken as part of the EIA, and through the SoCG process is in discussion with East Suffolk Council regarding this, however the Applicant considers the noise assessment to be adequate and robust. The operational noise assessment applies guidance and methodology contained in BS 4142:2014+A1:2019 (Rating and Assessing Industrial and Commercial Sound). Similarly, the construction assessment adopts guidance contained in BS 5228:2009+A1:2014 (Code of Practice for Noise and Vibration Control on Construction and Open Sites), which defines the accepted prediction methods and source data for various construction plant and activities. The approach and methodology for baseline noise surveys and the criteria used for the assessment was agreed with the East Suffolk Council Environmental Health Officer at the Noise and Vibration ETG in April 2018. The Applicant is currently in discussions with the local planning authorities with respect to the further information requested for the construction assessment and will be providing a clarification note through the Statement of Common Ground process. Post consent, detailed design for each project will be set out in the Construction Phase Noise and Vibration Management Plan, within the Code of Construction Practice in accordance with Requirement 22 and an operational noise monitoring scheme for monitoring compliance with the noise rating levels in requirement 26 of the ***draft DCO*** (APP-023). Additional measures likely to be considered as part of the Project in order to achieve the DCO noise limitations involve: • Selection of quieter equipment; • Installation of acoustic enclosures; • Installation of acoustic barriers; • Silencing of exhausts/outlets for air handling/cooling units; and

No.	Relevant Representation	Applicant's Comments
		• Locating and orientating equipment to take advantage of screening inherent in the design. The Applicant will also provide further information via a clarification note which will be submitted during Examination with respect to the modelling of the noise sources, omission of noise from National Grid infrastructure, rating level, assessment of background noise levels, omissions from the assessment and validity of the assessment method utilised.
005	Design and Masterplan – There is insufficient commitment within the Outline Design Principles Statement to secure the minimisation of the scale of the buildings, adequately mitigate the noise emitted or address the known future intentions of the site. East Suffolk Council is also not content that the draft Development Consent Orders do not apply the Outline Design Principles to the National Grid substation.	Post consent, the Applicant would design the onshore substation to the capacity of electricity required to be converted and to accommodate the technology at that time which is economically available from the supply chain. The final design would lie within the maximum extent of the consent sought. The Applicant notes the Council's concerns relating to the National Grid substation. This will be discussed during the SoCG process.
006	Substation – There are concerns in relation to the onshore substation infrastructure associated with both EA1N and EA2 and their impacts including on landscape and visual amenity, heritage assets, noise and public rights of way. When taken together there will be a significant adverse impact in respect of the sensitivity of the receiving landscape, local residents and visitors. The mitigation proposals presented to date do not satisfactorily address these concerns.	The Applicant notes concerns relating to the onshore substation infrastructure associated with the Project. As explained in ***Section 5.6.9 Chapter 5 EIA Methodology***, all onshore topic assessments consider the inter-relationship of impacts on individual receptors. For example, a landscape and visual effect and noise impact may cumulatively impact on a single receptor. For ***Chapter 29 LVIA***, this has been covered in ***section 29.8***. For historical setting and heritage assets, this has been covered in ***section 24.8*** of ***Chapter 24 Archaeology and Cultural Heritage*** (APP-072). Noise is covered in ***section 25.8*** of ***Chapter 25 Noise and Vibration*** (APP-073) and public rights of way are addressed in ***section 30.8*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078). The capacity of the landscape to accommodate the onshore infrastructure has been assessed in relation to the natural screening afforded by landform,

No.	Relevant Representation	Applicant's Comments
		woodlands, trees and hedgerows. The onshore substation and National Grid infrastructure is located within a landscape with extensive mature woodland of large scale, which provides some capacity to absorb and provide screening of the onshore infrastructure (***section 29.10*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077). The ***OLEMS*** (APP-584) has been developed to take into consideration historic landscape and re-establishing historic field boundaries. In areas to the immediate north of Friston, the re-establishment of historic field boundaries, filling gaps in existing hedgerows and introducing field boundary trees has been proposed to provide layered screening, rather than large-scale woodland planting close to the village. This allows the 'setting' of Friston to be retained (rather than being contained by woodland). Reinstatement of hedges with substantial gaps and new field trees are proposed to north of Friston. These proposals focus on the re-establishment of historic field boundary hedgerows / tree lines; as well as tree blocks set back from farmhouses (e.g. Covert woods). The ***OLEMS*** has proposed planting not to enclose the historic farms in woodland, as this is not how they would have been experienced in the past. The reestablishment of historically mapped tree-lined enclosures close to the farms has been proposed, to retain farms in an open farmed landscape, whilst achieving screening through multiple lines of planting. In the area to the north of the onshore substation and National Grid substation, the ***OLEMS*** has proposed the establishment of larger woodland blocks akin to the existing pattern of woodland blocks within the wider landscape. It is therefore the Applicant's view that this mitigation is targeted towards addressing concerns arising from these inter-relationships.
007	Traffic and Transport - The Council considers that the proposals are inadequate in a number of ways including: • the provisions for abnormal loads are insufficient, particularly for the future as Abnormal Indivisible Loads (AILs) access for maintenance and	The Applicant disagrees with the Council that traffic and transport proposals are inadequate, as discussed below. • An Abnormal Indivisible Loads (AIL) study is provided within ***Appendix 26.3*** (APP-529). No AILs will be required for maintenance and decommissioning

No.	Relevant Representation	Applicant's Comments
	decommissioning are not assessed in either the ES or Transport Assessment (TA) beyond local widening of the B1069/A1094 junction. • the proposals to reduce the southbound A12 speed limit to 40 mph at the Friday Street A12/A1094 junction together with new rumble strips and an adjustment to the existing speed camera would not be adequate to avoid an increase in accidents and that alternative mitigation is required to do so including potentially a roundabout. • no provision has been made to enter into a planning obligation with the Council and Suffolk County Council (SCC) as the Local Highway Authority to cover the cost of necessary highways works, for example permanent changes to the A12 speed limit at Benhall. • the cumulative impacts of these projects and other future energy projects has not been assessed in transport terms, this specifically impacts the Stratford St Andrew Air Quality management Area (AQMA). • that the operational, maintenance and decommissioning activities of EA1N, EA2 have been scoped out of the ES and TA. • that limits of traffic movements have not been included in the Outline Construction Transport Management Plan to limit the transport impacts to those assessed in the ES and TA. • that the delivery of mitigation for these projects do not compromise routes already in use by other schemes e.g. Sizewell C.	except in emergency scenarios (i.e. failure of transformers). The assessment is not required to include provision for these activities. • As detailed in ***section 26.6.1.10.2*** of ***Chapter 26 Traffic and Transport*** (APP-074), a package of highway improvements is proposed, augmented with measures to manage employee traffic movements during peak hours. This is considered appropriate to avoid significant adverse impacts. Importantly the measures proposed do not compromise the potential deliverability of a roundabout likely to be proposed by EDF as part of the Sizewell C project. • The Applicant is currently in discussions with East Suffolk Council regarding mechanisms to cover the cost of necessary highway works through the SoCG process. • ***Appendix 26.2*** (APP-528) and ***Appendix 19.2*** (APP-491) present the cumulative impact assessments in relation to traffic and transport and air quality respectively. The assessments determined no exceedances in air quality objectives during construction at all receptors, including the Stratford St Andrew Air Quality Management Area (AQMA) (***section 19.3.2***). The Applicant has committed to updating the traffic and transport assessment following publication of the Sizewell C application which has recently been submitted to the Planning Inspectorate. The air quality assessment will be reviewed in light of the outputs of the updated traffic and transport assessment. • Potential traffic and transport impacts during operation and decommissioning are considered in ***section 26.6.2*** and ***26.6.3*** of ***Chapter 26 Traffic and Transport*** (APP-074) respectively. The assessment is consistent with the scope set out in the Scoping Report (SPR 2017). • The Applicant is discussing further refinement of the Construction Transport Management Plan through the SoCG process.

No.	Relevant Representation	Applicant's Comments
	• protective provisions, similar to those included in the DCO for other statutory undertakers, are necessary to allow the SCC as the Local Highway Authority to discharge its responsibilities to access, inspect and maintain the public highway within the order limits.	• There are uncertainties regarding the start date for Sizewell C New Nuclear Power Station. The cumulative assessment in ***section 26.7.2.1*** of ***Chapter 26 Traffic*** therefore presents multiple scenarios to assess the potential interactions between the two projects. The worst-case cumulative scenario for the Project is the simultaneous construction with the East Anglia ONE North project and vice versa as this would lead to higher project-generated traffic flows due to both Projects being constructed simultaneously. Cumulative impacts with the Sizewell C New Nuclear Power Station are therefore considered alongside this scenario (scenario 1) to provide a worst-case CIA. No significant adverse impacts are predicted. ***Section 26.6.1.10.2*** sets out additional mitigation measures. A package of mitigation measures appropriate to the Project has been developed that allows the Project to proceed independently of the Sizewell C New Nuclear Power station proposals. • The Applicant notes the Council's concerns regarding the discharge of its responsibilities. These concerns will be addressed through the SoCG process.
008	Seascape and Visual Effects – The in-combination impacts of the offshore wind turbines of both projects and the visual effects of EA2 alone, will result in significant adverse landscape and visual effects on the Suffolk coast including on the character and special qualities of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB). The offshore turbines will have a significant and long-term negative impact on a nationally designated landscape. Given the sensitivity and designation of the receiving landscape and seascape, the promotor has not demonstrably exhausted all reasonable mitigation measures in terms of design of the scheme, including the height of the turbines.	The Applicant has demonstrated an ongoing commitment to reducing visual effects on the Suffolk coast. Following feedback to the PEIR, the Applicant has reduced the geographic extent of the East Anglia TWO windfarm site, helping to reduce visual effects on Suffolk Coast and Heaths AONB. More detail on the changes implemented between PEIR and ES are presented in ***section 28.3.3*** of ***Chapter 28 Seascape Landscape and Visual Impact Assessment*** (APP-076). As described in ***section 28.3.2*** of ***Chapter 28 Seascape, Landscape and Visual Impact Assessment***, the wind turbine sizes that are currently under consideration as the upper range of the Rochdale envelope are 250m wind turbines and 300m wind turbines. The realistic worst case layout assessed as the project design envelope for the SLVIA is the 60 x 300m wind turbine for reasons described in ***section 28.3.2.1***. The height of the wind turbines is

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	East Suffolk Council recognises that the principal consultee in respect of the impacts of the development on the AONB and their significance is Natural England. However, the Council is seeking to meet its duties under section 85 of the Countryside and Rights of Way Act 2000.	dependent on multiple factors and requires balance between engineering constraints, environmental impacts and commercial viability. The Applicant will continue to engage with the County Council on these matters through the SoCG process.
009	Cumulative Impacts –The full cumulative impacts of the existing and potential future projects in the East Suffolk area have not been adequately assessed within the applications.	The Applicant considers that the assessment of cumulative impacts of existing and potential future projects is robust. The approach to assessing cumulative effects with other development has been undertaken in accordance with the Planning Inspectorate Advice Note 17: Cumulative Effects Assessment (2018) (***section 5.1*** of ***Chapter 5 EIA Methodology*** (APP-053). The assessment methodologies and scope of other projects considered for each EIA topic have been developed with Local Planning Authorities and statutory stakeholders via Expert Topic Groups as described in ***section 5.3***. The Applicant is therefore of the view that the cumulative impacts have been adequately assessed and in line with the published guidance. The approach used for the CIA follows Planning Inspectorate Advice Note 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17 as summarised in the following: • **Tier 1** – Projects under construction, permitted or submitted applications; • **Tier 2** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and • **Tier 3** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent.

No.	Relevant Representation	Applicant's Comments
		Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to insufficient information available on which to base an assessment, in line with Advice Note 17. In some technical chapters, a more refined tiering system based on the guidance issued by JNCC and Natural England in September 2013[2] is employed. This approach was acknowledged within the Planning Inspectorate's Scoping Opinion (APP-033).
010	Mitigation and Compensation – Despite the assessments within the ES identifying residual impacts from the projects regarding landscape and visual effects, seascape and visual effects, ecology and setting of heritage assets, no additional mitigation and/or compensation is proposed to be secured through a s106. Although funding secured via a s111 agreement is proposed, which the Councils understand cannot be a material planning consideration.	The Applicant has incorporated a range of embedded and additional mitigations within the project design, informed through the EIA process, in order to make the nationally significant infrastructure projects acceptable in planning terms. Nonetheless, the environmental statement has identified that there are likely to be some residual effects during construction and operation of the Project and the Applicant is continuing to engage with the County Council on the development of s111 agreements to provide additional measures which have the potential to reduce, offset or compensate for the residual impacts of the Project.
011	Socio-Economic – The Council welcomes the creation of a new Memorandum of Understanding which establishes a commitment for the local authorities and SPR to work in partnership to maximise the education, skills and economic benefits of the SPR offshore wind projects. The potential scale of local economic growth however hinges on the choice of both base and marshalling ports, which the applicant has not confirmed. The Council will work with SPR to demonstrate the economic benefits of using the facilities at Lowestoft. Notwithstanding these positives, the Council is concerned in relation to the cumulative pressures on the labour force, on the supply chain and on	The Applicant will continue to engage with East Suffolk Council with respect to base and marshalling ports. The Applicant is committed to managing pressures on the local and regional labour force by matching employment opportunities with a Skills Strategy that builds on the experience of the East Anglia ONE project. With regards to tourism and hospitality sector impacts, ***section 30.7.2.1.3*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078) adopts an assessment scenario whereby East Anglia TWO, East Anglia ONE North and Sizewell C workers will need tourist accommodation during peak tourism season. However, this is considered to be an unlikely worst case as EDF Energy now assume that workers for Sizewell C will choose to stay within the rental market.

[2] JNCC and Natural England (2013). Suggested Tiers for Cumulative Impact Assessment.

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	accommodation for workers with other major infrastructure projects, in particular the proposed Sizewell C new nuclear power station. The potential impact on tourism is not adequately addressed within the submissions especially when taking into consideration the visitor survey undertaken by the Destination Management Organisation (2019).	SPR and EDF Energy are in communication to understand each other's programme and plan accordingly to manage demand on the local tourism accommodation availability. Potential cumulative tourism and recreation disturbance impacts are described in ***section 30.7.2.1.4*** however it is considered that all projects will need to mitigate their impacts to acceptable levels. As described in ***section 3.4*** of ***Chapter 30 Tourism, Recreation and Socio-Economics***, there is no statutory guidance to direct the assessment of socio-economic, tourism and recreation impacts on local communities affected by NSIPs. The Applicant has therefore developed an assessment methodology based on key legislation and regional and local policy and guidance. Please see sections ***30.4.1.1, 30.4.1.2*** and ***30.4.1.3*** for demonstration of the Applicant's policy compliance for tourism, recreation and socio-economics. This is also provided in ***section 6.24*** of the ***Development Consent and Planning Statement*** (APP-579). ***Section 30.3.1.4*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** explains the various internationally recognised concepts for social impact assessment and how the Applicant has adopted a best practice 'Sustainable Livelihoods Approach'. With respect to Tourism, the Applicant has followed guidance notes published by the Office for National Statistics and the National Academy of Coastal Tourism (***section 30.4.1.4.3***). The Applicant has followed the latest and best available guidance in developing the assessment methodology and therefore consider the assessment of potential impacts on tourism to be adequate. .
012	Heritage - The assessments under predict the level of harm caused by the developments on the settings of some listed buildings and the Council disagrees on the principle that the mitigation planting will help to reduce the impacts. The projects will also result in the loss of the historic parish boundary between Friston and Knodishall runs directly	It is noted by the Applicant that the presence of the onshore substation will represent a permanent / long-term change to the historic landscape character (HLC) to the west of Coldfair Green (and more specifically the northwest of Grove Wood) within and immediately surrounding the onshore substation location. The Applicant acknowledges that the onshore substation and National Grid substation are proposed to be located on the historic parish boundary of Friston.

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	through the middle of the proposed substation locations which has not been adequately addressed.	The Applicant has assessed the cultural impact to the historic parish boundary in two ways; both as a physical asset and within the assessment of Historical Landscape Character; and also assessed the physical loss of the PRoW associated with the historic parish boundary: 1. The potential loss of any above ground boundary features associated with the historic parish boundary ***Section 24.6.1.2*** of ***Chapter 24 - Archaeology and Cultural Heritage*** (APP-072) assesses the potential impact on historic parish boundaries. The onshore development area includes six parish boundaries (PB1-6) five of which survive as visible features in the landscape, as trackways (PB1 and PB5) or roads flanked by hedges (PB2 and PB3. The river that defines PB4 still follows the course of the boundary. The onshore cable corridor crosses five (PB2-6) of these parish boundaries (***Figure 16*** in ***Appendix 24.3***). Parish boundaries are discussed in greater detail in ***section 24.5.4*** of the chapter as part of the assessment of Historic Landscape Character***.*** The onshore substation and National Grid substation location includes one parish boundary (PB1). The hedgerows associated with this boundary are classed as "Important Hedgerows" (under the Hedgerows Regulations 1997) and are therefore considered to be heritage assets. 2. The potential loss of associated views of Friston from the PRoW heading south ***Appendix 24.7*** (APP-519) discusses the '*public footpath that leads to Friston*', identifying changes to the user-experience of the PRoW associated with the Parish boundary (PB1): *Cultural Heritage Viewpoint 4 illustrates a view looking south from close to Little Moor Farm (1215743) along the public footpath that leads to Friston. The church tower is visible on the skyline when walking south along this path and can be seen in the baseline photography at a range of 1.2km … It may be noted that it is proposed that this right of way will be diverted as it would be blocked by the*

No.	Relevant Representation	Applicant's Comments
		onshore substations and National Grid substation. However, the southern end of this path closer to Friston would remain open and the views of the church in this final 350m closest to Friston would be unaffected. The settings assessment concludes that the impact of the loss of the PRoW associated with the Parish boundary (PB1) results from the loss of views of the Friston Church tower when approaching Friston from the north along the footpath from Little Moor Farm. This results in a moderate adverse impact on the significance of Friston Church's setting. This impact is stated in ***Table 24.21*** in ***section 24.6.2.1*** of ***Chapter 24 Archaeology and Cultural Heritage***. <u>3. The potential loss of the trackway (PRoW) associated with the historic parish boundary</u> The Applicant notes that the trackway associated with the historic parish boundary (PB1) is not a physical heritage asset recorded in the Historic Environment Record, nor is it formally designated. The assessment of impacts upon PRoW from the Project, i.e. the physical loss of the PRoW, is presented within ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078). ***Section 30.6.1.4.2.1*** states: *There are two PRoW in the location of the onshore substation and National Grid infrastructure that will require permanent diversion (ID number: E-354/006/0 and E-387/009/0). This could result in a significant impact but will be mitigated through consultation on a permanent diversion and landscaping to develop an attractive footpath that walkers can enjoy. Therefore, the residual impact is negligible long term and minor adverse before the landscape features mature.* The Applicant has engaged with the Suffolk County Council Archaeological Service through the Statement of Common Ground process and notes that Suffolk County Council and East Suffolk Council do not consider that the significance of the historic parish boundary and associated PRoW have been adequately captured. However, the Applicant considers that the historic parish

No.	Relevant Representation	Applicant's Comments
		boundary and associated PRoW have been assessed appropriately, as outlined above. Impact to HLC (including hedgerows and parish boundaries) will be minimised by returning field boundaries / areas / hedgerows to their preconstruction condition and character post-construction, as part of a sensitive programme of backfilling and reinstatement / landscaping (see ***section 24.3.3.1***). Certain hedgerows and field boundaries (e.g. parish boundaries) may require recording prior to the construction process and enhanced provisions made during backfilling and reinstatement. Further detail regarding hedgerow reinstatement is provided in the ***OLEMS*** (APP-584), and the final LMP will be produced post-consent and agreed with the local planning authority. Impacts are assessed as minor adverse following the application of this mitigation (***section 24.6.1.2.3***). The potential for moderate adverse impacts on heritage assets such as Church of St Mary and Little Moor Farm is noted within the assessment in ***Chapter 24 Archaeology and Cultural Heritage***. In order to produce an accurate assessment of the contribution of historical setting to significance, an independent contractor (Headland Archaeology) was commissioned. The subsequent conclusions and narrative provided in ***section 24.6.2.1*** are based on and supported by this independent study (***Appendix 24.7*** (APP-519)). The Applicant is therefore of the view that an understanding of the historic landscape character has been adequately captured and potential impacts have been robustly assessed. As described above, an Outline Landscape Mitigation Plan was submitted as part of the ***OLEMS*** which seeks, among other objectives, to reduce adverse impacts on the heritage assets at Friston. The ***OLEMS*** has been developed to take into consideration historic landscape and re-establishing historic field boundaries. In areas to the immediate north of Friston, the re-establishment of historic field boundaries, filling gaps in existing hedgerows and introducing field boundary trees has been proposed to provide layered screening, rather than large-scale woodland planting close to the village. This allows the 'setting' of Friston to be retained (rather than being contained by woodland). Reinstatement

No.	Relevant Representation	Applicant's Comments
		of hedges with substantial gaps and new field trees are proposed to north of Friston. These proposals focus on the re-establishment of historic field boundary hedgerows / tree lines; as well as tree blocks set back from farmhouses (e.g. Covert woods). The ***OLEMS*** has proposed planting not to enclose the historic farms in woodland, as this is not how they would have been experienced in the past. The reestablishment of historically mapped tree-lined enclosures close to the farms has been proposed, to retain farms in an open farmed landscape, whilst achieving screening through multiple lines of planting. In the area to the north of the onshore substation and National Grid substation, the ***OLEMS*** has proposed the establishment of larger woodland blocks akin to the existing pattern of woodland blocks within the wider landscape. The capacity of the landscape to accommodate the onshore infrastructure has been assessed in relation to the natural screening afforded by landform, woodlands, trees and hedgerows. The onshore substation and National Grid infrastructure are located within a landscape with extensive mature woodland of large scale, which provides some capacity to absorb and provide screening of the onshore infrastructure (***section 29.10.3*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077).
013	Air Quality – The promotor's assessment shows a risk of adverse impacts to residential amenity if vehicle emissions do not improve as expected between 2018 and 2023. Should Sizewell C's DCO application be successful, cumulative construction traffic impacts from EA1N/EA2 and Sizewell C pose a risk to achieving the NO2 annual mean air quality objective within the Stratford St Andrew AQMA. Additional information to demonstrate that adverse impacts have been completely mitigated and managed is required. A requirement is recommended to ensure an action group review air quality monitoring data and	The Applicant recognises that monitoring is an important element in the management and verification of the actual impacts based on the final detailed design. Where monitoring is proposed for air quality, this is described in the ***Outline Code of Construction Practice (OCoCP)*** (APP-578)**.**

No.	Relevant Representation	Applicant's Comments
	proactively manage construction traffic to minimise exceedance risks.	
014	Public Rights of Way – The impact of the developments on the amenity and the quality of the user experience of the public rights of way network has not been adequately addressed in the application. This aspect should be a separate theme within the Environmental Statements in order to address the impact on both the tourism industry and the local communities.	The Applicant notes the Council's concerns with respect to temporary and permanent closure of PRoWs north of the village of Friston and along the onshore development area on both the tourism industry and local communities. Impact on views experienced by users of the local Public Right of Way (PRoW) network are considered in ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077). PRoWs were included in the viewpoint locations agreed with the LVIA ETG for use in the LVIA of the onshore substation and National Grid Infrastructure as listed in ***Table 29.6***. Impacts on recreation and tourism relating to PRoWs have been assessed in ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078). The ***OLEMS*** (APP-584) has been developed to take into consideration potential impacts on users of PRoWs. The ***Outline Public Rights of Way Strategy*** (APP-581) outlines the management principles to be adopted in ensuring that PRoW are managed in a safe and appropriate manner during construction and operation. Precise details for the management of each PRoW, including the specification of any PRoW temporary diversions during construction, works will be agreed with the Local Planning Authority (following consultation with the Local Highway Authority) through approval of the final PRoW Strategy prior to commencement of any stage of the authorised development that would affect a PRoW specified in Schedule 3 or 4 of the ***draft DCO*** (APP-023). For temporary stopping up of PRoW, Article 11 of the ***draft DCO*** requires the alternative right of way to be in place to the reasonable satisfaction of the Local Highway Authority before the existing PRoW can be temporarily stopped up There are two PRoW within the onshore development area which interact with the Project on a permanent basis during construction and also during operation.

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		These will require permanent stopping-up and diversion (as listed in ***Table 3.1*** in the ***Outline Public Rights of Way Strategy*** (APP-581)) and as shown on the ***Permanent Stopping up of Public Rights of Way Plan*** (APP-014). For PRoW which will be permanently stopped up, as set out in Article 10 of the ***draft DCO,*** the existing PRoW cannot be extinguished until the Local Highway Authority confirms that the alternative PRoW has been created to the standard defined in the final PRoW Strategy.
015	Flood Risk - Although recent flood events in Friston are thought not have had their origin within the proposed substation site the information within the application is not sufficient to determine how the proposed developments would interact with existing drainage patterns.	The Applicant disagrees that information within the application is not sufficient. The Flood Risk Assessment (FRA) in ***Appendix 20.3*** (APP-496) is in accordance with EN-1 Overarching National Policy Statement (NPS) for Energy, National Planning Policy Framework (NPPF) (Ministry of Housing, Communities & Local Government 2019)[3], Planning Practice Guidance (PPG) for Flood Risk and Coastal Change (Ministry of Housing, Communities & Local Government 2014)[4], and the Environment Agency's Climate Change Allowance guidance (Environment Agency 2016)[5]. As set out in ***section 20.7*** of the FRA (APP-496), the Applicant will undertake development of a catchment hydraulic model prior to construction, informing the preparation the final Surface Water and Drainage Management Plan to be approved by the relevant planning authority as per Requirement 22 of the ***draft DCO*** (APP-023). Requirement 22 states that no stage of onshore works can commence for that stage until the CoCP, including both a surface water and drainage management plan and a flood management plan, has been submitted to and approved by the relevant local planning authority. This will be developed with regulators to ensure ongoing drainage of surrounding land and no increase in surface water flood risk.

[3] MCLG (2019) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf
[4] MCLG (2014) Flood Risk and Coastal Change. Available at: https://www.gov.uk/guidance/flood-risk-and-coastal-change
[5] Environment Agency (2016) Flood Risk Assessments: Climate Change Allowances. Available at: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

No.	Relevant Representation	Applicant's Comments
		The Applicant will also produce a LMP to be approved by the relevant planning authority as per requirement 14 of the ***draft DCO***. Requirement 14 states that no stage of the onshore works can commence until for that stage a written LMP and associated work programme (which accords with the ***OLEMS*** and includes details of the ongoing maintenance and management of the landscaping works) has been submitted to and approved by the relevant planning authority. Discussions regarding flood risk are ongoing between the Applicant and the local planning authorities through the SoCG process.
016	Ecology – The Council is concerned that there are some ecological receptors which are either not considered to have been fully assessed or have insufficient mitigation/compensation measures identified within the Environmental Statements and secured within the draft Development Consent Orders (DCO). These include the impact on bats, hedgerows, woodlands and trees during construction and designated sites in relation to adverse impacts on air quality during construction. In addition to these areas the Council is disappointed with the lack of commitment to biodiversity net gain.	The Applicant notes concerns regarding the assessment of ecology receptors, however, the Applicant considers the assessment to be robust. The Applicant's approach to the Ecological Impact Assessment (EcIA) is in accordance with industry accepted guidance and takes into account feedback received from the Onshore Ecology Expert Topic Group (ETG) meetings. See ***Appendix 22.1*** (APP-501) – ***Appendix 22.6*** (507) for evidence of all ecological surveys. The Applicant has committed to pre-construction ecological surveys to prior to commencement of the relevant works, secured through the production of an Ecological Management Plan (EMP). In terms of Requirement 21 of the ***draft DCO*** (APP-023), the EMP must be submitted to and approved by the relevant planning authority in consultation with the relevant statutory nature conservation body before onshore works can commence. The results of the assessment of nutrient nitrogen deposition on designated ecological sites are presented in ***section 19.6.1.2.2*** of ***Chapter 19 Air Quality*** (APP-067). Increases in nutrient nitrogen deposition were no greater than 1% of the Critical Load range at all transect locations (for Project and cumulative), including those closest to the road network. Impacts are therefore considered to be **not** significant. Net Gain is not applicable to NSIPs and marine developments in the UK Government's draft Environment Bill. This is confirmed in the UK Government's

No.	Relevant Representation	Applicant's Comments
		response to the Department for Environment, Food and Rural Affairs (DEFRA) consultation on Net Gain[6].
017	Coastal Change – Further information is necessary to demonstrate the proposed works do not cause local cliff destabilisation or damage to the subsea crag outcrop and revisions are required to the requirements to ensure that the detailed design of the works is submitted for approval before construction commences.	The Applicant considers sufficent information has been proposed to demonsrate the proposed works do not cause local cliff detablisation or damage to the sub-sea crag outcrop. In order to assess the movement and stability of the shoreline and shallow subtidal areas, and the effects of coastal management plans over the next 50 years, a coastal stability study was also commissioned (see ***section 2.12*** of ***Appendix 4.6*** (APP-447)). The study showed that the main uncertainty associated with the coastline in the area is in terms of long term change in coastal processes, alongside change in sea levels related to climate change. It was considered that the available information allowed a good assessment of the area in terms of present day trends of erosion, but that some caution has to be taken in extrapolating these trends into the future. The study was also able to quantify appropriate set back distances from the cliff line depending on where a future landfall location is chosen. This was proposed on a conservative precautionary approach. The Applicant has committed to setting back the landfall transition bays to the potential 100-year erosion prediction line to ensure the integrity of the cliff is not compromised and to allow for natural coastal erosion (***section 6.6.2*** of ***Chapter 6 Project Description*** (APP-054)). The coastal erosion predictions for the landfall area were discussed and presented to East Suffolk Council's (ESC) coastal engineer as part of the Landfall and Coastal Processes Expert Topic Group (ETG) in February 2018. At that time, the Applicant received agreement from ESC that the coastal erosion predictions were robust and that the conservative buffer for setting back the landfall transition bay area of search (***Figure 6.6*** (APP-101)) was appropriate.

[6] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819823/net-gain-consult-sum-resp.pdf

No.	Relevant Representation	Applicant's Comments
		In May 2018, ESC's coastal engineer provided beach transect plots prepared by the Environment Agency after the late February / early March 2018 prolonged series of onshore winds. They showed updated cliff retreat data over the frontage to the north of Thorpeness Village from 2013 to March 2018. These transects were reviewed against the initial coastal erosion predictions in July 2018. The review concluded that the overall extents of erosion set out in the original report were robust when considering the more recent rates of erosion as there is no evidence that a fundamental change in the broader scale longer term processes exists. ESC's coastal engineer agreed that the data had been considered appropriately and that the conclusions of the coastal erosion predictions were robust. The Applicant has committed to providing a landfall construction method statement as per Requirement 13 of the ***draft DCO*** (APP-023) to be approved by the relevant planning authority before works on the landfall connection and onshore transmission works at the landfall can commence.
018	Archaeology – the submitted information falls short of the level of detail required by the County Archaeologists. This calls into question the delivery of the schemes within the red line boundary.	The Applicant will continue to engage with the County Archaeologists to minimise potential impacts regarding buried archaeological remains. Additional measures will be secured within the final Written Scheme of Investigation (Onshore) and pre-commencement archaeology execution plan, to be agreed with Suffolk County Council Archaeology Service (SCCAS).
019	Land Use – The proposals will result in the loss of an area of the best and most versatile agricultural land.	The Applicant notes that some agricultural land will be permanently lost due to the permanent operational infrastructure and the additional landscaping footprint. However, the impact is considered to be of **minor adverse** significance in the context of the county's total farmed resource (see ***section 21.6.2.1.2*** of ***Chapter 21 Land Use*** (APP-069)). Requirement 29 of the ***draft DCO*** requires the Applicant to reinstate land used temporarily for construction of the onshore works and not ultimately incorporated in permanent works or approved landscaping. This must be done in accordance with such details as the relevant planning authority in consultation with the relevant highway authority may approve, within twelve months of completion of

No.	Relevant Representation	Applicant's Comments
		the relevant stage of the onshore works or such other period as the relevant planning authority may approve. This will ensure that land is returned to its original use as far as practicable following construction and that there are no long-term significant impacts (***section 21.7.1).*** Embedded mitigation pertaining to land use and agriculture is set out in ***section 21.3.3*** of ***Chapter 21 Land Use*** (APP-069). This includes a narrowed onshore cable route swathe and a commitment by the Applicant to produce a Soils Management Plan (SMP) to protect the integrity of the soil. Through engaging with local land owners and minimising land take where practicable, the Applicant has sought to reduce the potential impacts on agricultural land.
020	Construction Management – there are specific points along the onshore cable corridor where the order limits are constrained, or the construction works will occur very close to residential properties i.e. area south of Sizewell Gap Road, Hundred River Crossing and Friston. Further work is necessary to understand how pre-construction and construction works in these areas would be managed to minimise harm. The Council would also wish to see greater coordination between the construction of the projects.	The Applicant notes the concerns raised by the Council regarding construction management. The ***Outline Code of Construction Practice (OCoCP)*** (APP-578) sets out the general principles and control measures to be adopted during construction, including measures to protect local residents from noise disturbance. Specific noise control measures and requirements for monitoring will be included within a Construction Phase Noise and Vibration Management Plan, submitted to and approved by the Local Planning Authority as part of the final CoCP. A Stakeholder Communications Plan will also be developed as part of the final CoCP to ensure effective and open communication with local residents and businesses that may be affected by the construction works. The Applicant will continue to engage with the Council regarding their concerns in this regard, through the SoCG process.
021	Major Accidents and Disaster Assessment - The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 introduced the requirement for Major Accidents and Disasters to be considered as part of the EIA process. The Civil Contingencies Act 2004 (Contingency Planning)	The Applicant will prepare and submit an Emergency Incident Response Plan for approval by the relevant planning authority prior to the commencement of specified works. This is secured under Requirement 33 of the ***draft DCO*** (APP-023)

No.	Relevant Representation	Applicant's Comments
	Regulations 2005 places a duties on Category 1 responders, including SCC, to assess risks of emergencies, both natural and manmade, and to maintain emergency plans to mitigate, manage and control the effects of such emergencies to protect the public and the environment. There does not appear to be any reference to statutory civil contingency risk information nor has there been any consultation prior to these DCO applications with the Suffolk Local Resilience Forum to understand detailed local risk information and related emergency planning to allow an assessment of vulnerability to take place. There is reference to Control of Major Accident Hazard Regulations, but this is not appropriate in for this development unless the construction site is going to utilise hazardous materials that take operations into lower or upper tier status under these regulations. Accordingly, there is no description of measures to prevent or mitigate the significant adverse effects of such risks on the environment or details of the preparedness for and proposed response to such emergencies. This makes it difficult to understand whether the onshore construction activity has been properly assessed against the pre-existing civil emergency risks or if aspects of the construction activity itself may impact on pre-existing Suffolk emergency response arrangements.	The Applicant has engaged with the Suffolk Joint Emergency Planning Unit and provided information to allow an assessment of the DCO on existing off-site emergency arrangements made under The Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPIR). The Suffolk Joint Emergency Planning Unit have confirmed that provided an appropriate change to the REPPIR off site emergency plan is made and emergency arrangements made by the Applicant are in place prior to any work taking place, the existing off site radiation emergency arrangements for Sizewell B Nuclear Power Station can be adequately maintained. The Suffolk Joint Emergency Planning Unit have requested two requirements be included in the ***draft DCO*** (APP-023). The Applicant will consider the wording of these requirements during the SoCG process.
022	Development Consent Order – as drafted at present there are a number of areas that need amendment in light of the above concerns.	The Applicant is working with East Suffolk Council on all topics through the SoCG process to agree suitable wording, where appropriate, within the DCO.
023	Summary Position of East Suffolk Council East Suffolk Council is supportive of the principle of offshore wind development, recognising the strategic need	The Applicant is keen to ensure the benefits of the project are maximised whilst continuing to engage with East Suffolk Council and other relevant stakeholders to ensure potential negative impacts are minimised.

No.	Relevant Representation	Applicant's Comments
	for zero carbon energy and the contribution the industry can make to sustainable economic growth in Suffolk. This must however be achieved without significant damage to the environment, local communities and tourist economy of East Suffolk. The projects as designed to date will result in significant impacts as set out above, particularly in relation to the environment around the substation site and significant effects on the designated landscape. Based on the current submissions East Suffolk Council objects to the overall impact of the onshore substations and raises significant concerns regarding the significant effects predicted from the offshore turbines on the AONB. There are also a number of additional issues which have not been adequately addressed within the applications which have been outlined above. The relevant issues will be set out in more detail within our further submissions. The Council will seek to engage with the applicant in relation to the concerns outlined above in order to try and minimise the harm caused by the projects and address the issues raised where possible. The Council will continue to seek and advocate for s106 agreements to secure appropriate mitigation and/or compensation in relation to the identified impacts of the proposals. The Council will continue to raise concerns and seek to work with Government, namely the Ministry of Housing, Communities and Local Government (MHCLG) and Department for Business, Energy and Industrial Strategy (BEIS) with regards to the cumulative impacts on East	

No.	Relevant Representation	Applicant's Comments
	Suffolk of the numerous energy projects existing and forthcoming.	

2.2 Great Yarmouth Borough Council (RR-003)

Table 2 Applicant's Comments on Great Yarmouth Borough Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	The Council reiterates it's strong support of the aims and ambitions of both the East Anglia ONE North and East Anglia TWO Wind Farms, which are consistent with national renewable energy targets and objectives. The location of East Anglia ONE's Operations & Maintenance base at ABP's Hamilton Dock in Lowestoft is welcomed and closely linked to Great Yarmouth, which remains England's offshore sector capital with over 50 years of Southern North Sea offshore energy experience, access to a deep-water port, skills and strong energy supply chain.	The Applicant notes Great Yarmouth Borough Council's support for the Project and in the site selection works undertaken.
002	The Council has no objections to the routing of the proposed cabling of either windfarm project in terms of the locations of the landfall points, onshore cable corridor and converter station as these are all outside of the Council's administrative boundary. It is not yet known whether both windfarm projects will be constructed at the same time or sequentially, however the Council remains supportive of Scottish Power Renewables' approach to take both applications simultaneously through the Development Consent Order process.	Noted.
003	There is a significant geographic of both onshore and offshore development areas of both applications, therefore the approach allows for an improved understanding of the cumulative impacts. It is nonetheless preferred, that where possible, mutual points of infrastructure are secured to help mitigate the overall impact of the combined proposals.	Noted. As described in ***section 6.12*** of ***Chapter 6 Project Description*** (APP-054), the Projects will share the same landfall location, onshore cable route, National Grid infrastructure, and the two onshore substations will be co-located.

2.3 Norfolk County Council (RR-005)

Table 3 Applicant's Comments on Norfolk County Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	It is understood that the onshore development (landfall and grid connection) associated with these two offshore windfarm proposals will be located outside of Norfolk within the neighbouring County of Suffolk. As such it is unlikely that these proposals will have any immediate impacts on Norfolk in terms of landscape, ecology and archaeological matters. Furthermore, it is not felt that there will be any significant transport impacts on Norfolk arising from either the construction or operation of the onshore infrastructure.	Transport impacts on Norfolk road networks were scoped out of the assessment due to the distance from areas within Norfolk County Council remit.
002	Employment and Training While Norfolk County Council welcomes the potential employment opportunities the offshore proposals will have within the local/regional area both during construction and once operational, there are significant economic issues, which the development consent order (DCO) will need to address with regard to: (a) The cumulative impacts on the local labour market; and supply chain (i.e. taking into account other planned NSIPs e.g. Sizewell C; Norfolk Vanguard Offshore Wind Farm; Hornsea Project Three; and Boreas Offshore Windfarm). (b) Developing a local skills strategy to ensure there are sufficient skilled workers. Norfolk County Council would especially welcome measures that will enable permanent, long term job opportunities to be taken up by local people; and (c) In addition the County Council would support measures that would encourage/enable people currently excluded from the	The Applicant notes Norfolk County Council's comments regarding employment and training. Employment has been considered across both the construction and operation phases of the Project. As discussed in ***Chapter 30 Tourism, Recreation and Socioeconomics*** (APP-078), the development of the Project is part of a wider process of developing an offshore wind supply chain in the New Anglia Local Enterprise Partnership (NALEP) region. Therefore, from a skills point of view, creating a demand for transferable skills (both between construction projects and on to operation of projects) has a multiplying effect on employment. Direct employment by the Project also creates indirect employment in the supply chain and induced employment due to expenditure. <u>Onshore Construction Jobs</u> ***Tables 30.47*** of ***Chapter 30 Tourism, Recreation and Socio-economics*** (APP-078) shows that on average the Project would create 265 national Full Time Employment (FTE) per year (over a three year construction period). Of this, 86 FTE could be created locally (***Table 30.48***) and a further 127 FTE would be created regionally (***Table 30.49***) which equates to 213 FTE across NALEP (***Table 30.50***). The remaining 62 FTE would be sourced outside of

No.	Relevant Representation	Applicant's Comments
	formal labour market to be supported into jobs at any level/degree of permanency. It is felt that given the proposal's proximity to Norfolk and the likelihood of additional major construction projects in both Norfolk and Suffolk arising from the offshore wind energy sector and Nuclear sector (as outlined above) there is a need for an Education, Skills and Employment Strategy to be prepared to address / consider the wider cumulative impacts arising from other planned NSIPs in the area (i.e. covering the above offshore projects and Sizewell.	NALEP (***Table 30.51***). It is assumed that these would be technical specialists and their origin would depend on their specialism which is not possible to estimate at a pre-consent stage. The assessment concluded an onshore construction impact of moderate beneficial for the local and regional labour market, as described in ***section 30.6.1.1.4*** **of** ***Chapter 30 Tourism, Recreation and Socio-economics*** (APP-078). Offshore Construction Jobs ***Table 30.56*** of ***Chapter 30 Tourism, Recreation and Socio-economics*** (APP-078) shows that nationally the Project may generate 1,600 to 4,100 FTE during the construction period. ***Table 30.57*** of the chapter shows that within NALEP the Project may generate 100 to 300 FTE during construction of offshore infrastructure. Overall, the assessment concluded an offshore construction impact of moderate beneficial significance for the regional and labour market, as described in ***section 30.6.1.2.4*** of the chapter. Long Term (Operational) Employment ***Table 30.73*** of ***Chapter 30 Tourism, Recreation and Socio-economics*** (APP-078) shows that nationally the Project may generate 400 to 900 FTE for at least 25 years. Table 30.74 shows that within NALEP the Project may generate 300 to 700 FTE for at least 25 years. It should be noted that this represents continuous employment over several decades with wages above the national average. This type of employment opportunity is sufficient to drive other effects. People would move to an area where well paid, long-term employment is available. Similarly, young people may aspire to work in this sector which provides well paid, secure employment. These effects would lead to further effects such as investing in housing, higher local expenditure, growing families, and supporting communities. The assessment of long term employment concluded an impact of major beneficial significance at the regional level (see ***section 30.6.2.1.4***).

No.	Relevant Representation	Applicant's Comments
		Skills and Training Skills and Training enhancement will allow the promotion of Industry Careers and Science, Technology, Engineering, Mathematics (STEM) activities as described in ***section 30.3.3.1*** of ***Chapter 30 Tourism, Recreation and Socioeconomics*** (APP-078). This would be facilitated where possible, for example through the general promotion of employment and reskilling opportunities, a focus on informing and inspiring teachers and students and working with the local supply chain. The Applicant is entering into a Memorandum of Understanding (MoU) on skills and training with East Suffolk Council and Suffolk County Council for the Project (note the benefits of this MoU will extend beyond Suffolk). The pipeline of offshore windfarm projects in the region provides experience and an existing skills base.
003	The DCO needs to have a requirement setting out the need for an education, employment and skills strategy.	***Section 30.3.3.1*** of ***Chapter 30 Tourism, Recreation and Socioeconomics*** (APP-078) includes details of a Skills Strategy and a MoU with Suffolk County Council (SCC) for previous SPR offshore wind projects. A Skills Strategy was formally agreed with SCC as a MoU for East Anglia ONE. This has subsequently been maintained as part of the East Anglia THREE project. The Applicant is entering into a MoU on skills and training with East Suffolk Council and Suffolk County Council for the Project (note that the benefits of the MoU will extend beyond Suffolk).
004	Transmission network – grid connection comments There are wider grid connection issues in respect of the 400kV network which runs between Norfolk and Suffolk. It is considered that as part of any the DCO application and accompanying Environmental Statement there needs to be clarification on whether there is likely to be any requirement in the wider area for either: (a) reinforcement of the existing 400 kV network; or	The works do not require wider reinforcement of National Grid infrastructure. ***Section 4.7.5*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** outlines National Grid's approach to the offer of a grid connection location for the purposes of these Projects. This is undertaken through the Connection and Infrastructure Options Note (CION) process.

No.	Relevant Representation	Applicant's Comments
	(b) new overhead lines (400kV). Given the amount of electricity coming ashore from other offshore wind energy projects and the increased generation from Sizewell C, the DCO application will need to address the in-combination impact on the 400 kV transmission network in the wider strategic area i.e. including the potential for reinforcement and new lines in both Norfolk and Suffolk.	Guidance Note Issue 3 (National Grid 2018)[7] explains how the CION assessment is carried out. The process looks at technical, commercial, regulatory, environmental, planning and deliverability aspects to identify the preferable connection for the consumer which includes consideration of the existing transmission network and future reinforcement and new lines that may be required. Options to connect in the Bacton, Bradwell or Lowestoft areas were discounted in part due to additional infrastructure requirements. This was not applicable in the context of the outcome of the site selection process. The decision to use underground cable systems for the onshore cables, avoids the requirement to construct new overhead lines. The mitigation embedded in this approach would lead to notably reduced impacts on landscape and visual receptors during the construction phase and no impacts during the operational phase. It also notably reduces the potential for the onshore cable route to contribute to significant cumulative effects. The construction works for the onshore cables would be of a notably smaller scale than those required to install new overhead lines and post construction, the onshore cable route would have a negligible impact on landscape and visual receptors as the components for the onshore cables would be buried under ground (***section 29.3.3*** of ***Chapter 29 Landscape and Visual Impact Assessment***).

[7] National Grid (2018) Applying for an electricity connection (issue 3) https://www.nationalgrid.com/uk/electricity/industrial-connections/applying-connection

2.4 Suffolk County Council (RR-007)

Table 4 Applicant's Comments on Suffolk County Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	The County Council recognises the national benefit these projects will bring in meeting the renewable energy targets and creating sustainable economic growth in Suffolk provided this is achieved without significant damage to the local built and natural environment, local communities and tourist economy. The local impacts of the projects and their cumulative impacts should be considered and adequately addressed by the applicant.	The Applicant notes and agrees with Suffolk County Council's recognition that the Project will bring national benefit to meeting renewable energy targets and create sustainable economic growth in Suffolk. The Applicant considers that the potential impacts and cumulative impacts have been adequately addressed throughout the EIA. ***Section 5.5*** of the ***Development Consent and Planning Statement*** (APP-579) describes the policy case for the development with regards to economic growth and provides examples of how the Project (and Projects) will help create sustainable economic growth in Suffolk: • An increased use of local accommodation and businesses during off peak season for tourism is expected (***section 30.6*** of ***Chapter 30 Tourism, Recreation and Socio-Economics)*** as a benefit of the project; and • The assessment establishes that employment benefits of the Project would create an estimated peak employment of over 300 staff per day during onshore construction and between 100 to 300 Full Time Equivalent (FTE) jobs for offshore construction within East Anglia. As context for these benefits, ScottishPower Renewables (SPR) (of which the Applicant, is a wholly owned subsidiary) is currently constructing the East Anglia ONE project (due to be fully operational in 2020) and has gained consent for East Anglia THREE. Examples of the already established socio-economic benefits of these already consented projects to local businesses include: • In 2015, SPR agreed a 30-year contract worth £25 million for the Port of Lowestoft to be the operations and maintenance (O&M) and construction

No.	Relevant Representation	Applicant's Comments
		management base for East Anglia ONE, creating significant employment for local people and future graduates (SPR 2018)[8]; • SPR and the Associated British Ports (ABP) have awarded contracts totalling £10 million for development of the Port of Lowestoft (SPR 2018), and • Once the state-of the-art operations and maintenance facility has been designed and constructed, around 100 full-time jobs will be created for East Anglia ONE, with thousands of contractors and supply chain operators using the site every year.
002	Landscape and Visual Effects – The applicant has not fully understood the character and significance of the features and landscape elements of the site, especially in relation to the historic landscape character and therefore the Environmental Statement does not fully recognise the harm caused by the development. The effectiveness of the proposed mitigation planting has not been adequately justified especially as the assumed growth rates are not reasonably likely to be achieved in the prevailing local conditions. The visualisations are not considered reliable with the inclusion of unsecured preconstruction planting and trees, and vegetation that is seemingly of significantly greater maturity than the 15 years specified. The mitigation planting will therefore be largely ineffective for many more years than is claimed.	It is noted by the Applicant that the presence of the onshore substation and National Grid infrastructure will represent a permanent / long-term change to the historic landscape character (HLC) to the west of Coldfair Green (and more specifically the northwest of Grove Wood) within and immediately surrounding the onshore substation location. However, the Applicant has demonstrated that implementation of mitigation measures is feasible. The Applicant considers that the growth rates outlined are appropriate and achievable, as covered in full detail below. ***Appendix 29.3*** (APP-567) has been produced following the latest and best available guidance from Natural England 'An Approach to Landscape Character Assessment'. The assessment considers the relevant Landscape Character Types (LCTs) defined in the Suffolk County Council Landscape Character Assessment (Suffolk County Council, 2008/2011) as agreed with the LVIA ETG and informs the conclusions drawn in the assessment in ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077) With regards to mitigation planting, as set out in ***section 3.5.4*** of the ***Outline Landscape and Ecological Management Strategy (OLEMS)*** (APP-584)), assumed growth rates are based on relevant guidance from the Institute of Environmental Management (IEMA), research of relevant published literature

[8] SPR (2018) The East Angle: https://indd.adobe.com/view/32f46fba-ef4b-48df-9b0a-9db3626b2470

No.	Relevant Representation	Applicant's Comments
		and plant nurseries, and are comparable to precedents established by other Nationally Significant Infrastructure Projects (NSIPs). The Applicant held Expert Topic Group (ETG) s meetings in which growth rates were discussed with the local planning authority **(Table 3.1** of the ***OLEMS*** (APP-584)). ***Section 3.5.4*** of the ***OLEMS*** (APP-584) provides information on the assumed growth rates of trees utilised for landscaping The Applicant is in ongoing discussions with the local planning authorities regarding visualisations through the SoCG process. A range of tree heights within the upper and lower height ranges will be shown in the photomontages which will be provided within a Photomontages Methodology Clarification Note which will be submitted during Examination This will provide a representation of likely differences in growth and generally a more realistic appearance of the woodland areas in the photomontages. It is recognised by the Applicant that monitoring of the planting is an important element in the management and verification of the actual impacts based on the final detailed design. Monitoring surveys would be discussed and agreed with the Local Planning Authority and included within the relevant management plan(s), submitted for approval to discharge relevant DCO requirements, prior to construction works commencing (***section 9*** of the ***OLEMS***). Requirement 14 of the ***draft DCO*** (APP-023) states that the Applicant cannot commence onshore works until a written Landscape Management Plan (LMP) has been submitted to and approved by the local planning authority. The plan must accord with the ***OLEMS*** (APP-584) and include details of the ongoing maintenance and management of the landscaping works. Requirement 15 of the ***draft DCO*** (APP-023) requires all landscaping works to be carried out in accordance with the approved landscape management plan and in accordance with the relevant recommendations of appropriate British Standards.
003	Landscape and Visual Effects – The applicant has not demonstrably exhausted all reasonable measures to minimise the impacts of the permanent onshore	The Applicant notes concerns regarding impacts of the onshore substation and national grid substations due to their size and scale.

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	substations. It is essential that the size and scale of the proposals is minimised with careful consideration given to the layout of the site, building design and materials.	As described in ***section 29.3.3*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077), National Grid's Guidelines on Substation Siting and Design (The Horlock Rules) have been taken into consideration during the site selection process. Those relevant to the LVIA include the following: • To avoid landscape designations including National Parks and AONBs. • To protect areas of local amenity value including ancient woodland and historic hedgerows • To take advantage of screening provided by landform and existing features. The selected onshore substation location avoids all international, national, county and local landscape designations. It does not affect any ancient woodland and mitigation measures ensure hedgerow loss which would occur is compensated for in new planting around the onshore substation. The site benefits from existing natural screening provided by Grove Wood and Laurel Covert, as well as other smaller tree blocks and hedgerows surrounding the site. These landscape features provide screening principally from the east and create a wooded backdrop in views from other directions, below which the height of the onshore substation and National Grid substation will be contained and in so doing, contribute to the mitigation of landscape and visual effects. Full details of all the measures taken by the Applicant to minimise the potential impacts of the substations during the site selection process are provided in ***section 4.9*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052) The maximum sizes of the key onshore substation parameters are provided in ***Table 6.27*** of ***Chapter 6 Project Description*** (APP-054) and National grid substation parameters are provided in ***Tables 6.38*** and ***6.29***. The size of the onshore infrastructure has been determined through the Rochdale Envelope approach (see ***section 3.5 of Chapter 3 Policy and Legislative Context*** (APP-051) which sets out a series of realistic design assumptions from which worst case parameters are drawn for the Project. The project design envelope has a

No.	Relevant Representation	Applicant's Comments
		reasoned maximum extent for a number of key parameters. The final design would lie within the maximum extent of the consent sought. The physical footprint of the onshore substation are determined by: • Feasible technology (e.g. AC or DC transmission); • The size of infrastructure (e.g. the size of cables, size of building or equipment) which is determined by technology; • The number of each element required (e.g. cables, transformers, etc.); • Minimum spacings required for safe and efficient construction and operation (e.g. cable spacing); • Required stand-offs or crossing requirements (e.g. to other infrastructure or watercourses); • Other constraints (e.g. hard constraints or required buffers from human or environmental constraints), topography and natural features; • Construction methodology (e.g. open trench or trenchless technique) and construction sequencing which is dependent upon constraints; • Access and storage (including spoil); • Drainage; and • Welfare and security. Post consent, the Applicant would design the onshore substation to the capacity of electricity required to be converted and to accommodate the technology at that time which is economically available from the supply chain. The final design would lie within the maximum extent of the consent sought. The final onshore substation design would be developed post-consent. ***Section 3*** of the ***Outline Onshore Substation Design Principles Statement*** (APP-585) summarises the outline design principles that the Applicant will use as the foundation for developing the final Onshore Substation Design Principles post-

No.	Relevant Representation	Applicant's Comments
		consent, as part of the discharging of requirements of the ***draft DCO*** (APP-023). These include: • Continued engagement with Parish Councils, local residents and relevant authorities (Suffolk County Council and East Suffolk Council) on design and landscape proposals. • The landscape and building design proposals be subject to design review, in consultation with the relevant local authorities. • Consideration of 'Good Design' in line with the requirements of Overarching National Policy Statement for Energy (NPS-EN-1). • Appropriate building design and materials will be actively sought as part of the procurement process. Requirement 12 of the ***draft DCO*** (APP-023) provides that no stage of the substation can commence until details of the layout, scale and external appearance of the onshore substation have been submitted to and approved by the relevant local planning authority, and the substation construction must then be carried out in accordance with those approved details. The details must accord with the outline onshore substation design principles statement and be within the Order limits. Embedded mitigation measures also include a commitment to external harmonic filters which facilitated a significant reduction in maximum building height of the onshore substation from 21m to 15m during the pre-application stage. More detail regarding the design principles which underpin the design of the operational onshore substation is provided in the ***Outline Onshore Substation Design Principles Statement*** (APP-585). The operational footprints of the onshore substation and National Grid substation will be reviewed through the detailed design phase of the project post-consent.

No.	Relevant Representation	Applicant's Comments
004	Noise and Vibration – There are concerns regarding the adequacy of the noise assessment which it is considered underestimates the operational noise impacts at the substation site. The County Council has concerns regarding the modelling of the noise sources, omission of noise from National Grid infrastructure, rating level, assessment of background noise levels, omissions from the assessment and validity of the assessment method utilised. Further information is required before the Council can determine whether the construction noise assessment is a representative assessment of construction noise and vibration.	The Applicant notes concerns regarding the noise assessment undertaken as part of the EIA, and through the SoCG process is in discussion with Suffolk County Council regarding this, however the Applicant considers the noise assessment to be adequate and robust. The operational noise assessment applies guidance and methodology contained in BS 4142:2014+A1:2019 (Rating and Assessing Industrial and Commercial Sound). Similarly, the construction assessment adopts guidance contained in BS 5228:2009+A1:2014 (Code of Practice for Noise and Vibration Control on Construction and Open Sites), which defines the accepted prediction methods and source data for various construction plant and activities. The approach and methodology for baseline noise surveys and the criteria used for the assessment was agreed with the Suffolk County Council Environmental Health Officer at the Noise and Vibration ETG in April 2018. The Applicant is currently in discussions with the local planning authorities with respect to the further information requested for the construction assessment and will be providing a clarification note through the Statement of Common Ground process. Post consent, detailed design for each project will be set out in the Construction Phase Noise and Vibration Management Plan, within the Code of Construction Practice in accordance with Requirement 22 and an operational noise monitoring scheme for monitoring compliance with the noise rating levels in requirement 26 of the ***draft DCO*** (APP-023). Additional measures likely to be considered as part of the Project in order to achieve the DCO noise limitations involve: • Selection of quieter equipment; • Installation of acoustic enclosures; • Installation of acoustic barriers; • Silencing of exhausts/outlets for air handling/cooling units; and

No.	Relevant Representation	Applicant's Comments
		• Locating and orientating equipment to take advantage of screening inherent in the design. The Applicant will also provide further information via a clarification note which will be submitted during Examination with respect to the modelling of the noise sources, omission of noise from National Grid infrastructure, rating level, assessment of background noise levels, omissions from the assessment and validity of the assessment method utilised.
005	Design and Masterplan – There is insufficient commitment within the Outline Design Principles Statement to secure the minimisation of the scale of the buildings, adequately mitigate the noise emitted or address the known future intentions of the site. The County Council is also not content that the draft Development Consent Orders do not apply the Outline Design Principles to the National Grid substation.	Post consent, the Applicant would design the onshore substation to the capacity of electricity required to be converted and to accommodate the technology at that time which is economically available from the supply chain. The final design would lie within the maximum extent of the consent sought. The Applicant notes the County Council's concerns relating to the National Grid substation.
006	Substation – There are concerns in relation to the onshore substation infrastructure associated with both EA1N and EA2 and the impacts on landscape and visual amenity, heritage assets, noise and public rights of way. When taken together there will be a significant adverse impact in respect of the sensitivity of the receiving landscape, local residents and visitors. The mitigation proposals presented to date do not satisfactorily address these concerns.	The Applicant notes concerns relating to the onshore substation infrastructure associated with the Project. As explained in ***Section 5.6.9 Chapter 5 EIA Methodology***, all onshore topic assessments consider the inter-relationship of impacts on individual receptors. For example, a landscape and visual effect and noise impact may cumulatively impact on a single receptor. For ***Chapter 29 LVIA***, this has been covered in ***section 29.8***. For historical setting and heritage assets, this has been covered in ***section 24.8*** of ***Chapter 24 Archaeology and Cultural Heritage*** (APP-072). Noise is covered in ***section 25.8*** of ***Chapter 25 Noise and Vibration*** (APP-073) and public rights of way are addressed in ***section 30.8*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078).

No.	Relevant Representation	Applicant's Comments
		The capacity of the landscape to accommodate the onshore infrastructure has been assessed in relation to the natural screening afforded by landform, woodlands, trees and hedgerows. The onshore substation and National Grid infrastructure are located within a landscape with extensive mature woodland of large scale, which provides some capacity to absorb and provide screening of the onshore infrastructure (***section 29.10*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077). The ***OLEMS*** (APP-584) has been developed to take into consideration historic landscape and re-establishing historic field boundaries. In areas to the immediate north of Friston, the re-establishment of historic field boundaries, filling gaps in existing hedgerows and introducing field boundary trees has been proposed to provide layered screening, rather than large-scale woodland planting close to the village. This allows the 'setting' of Friston to be retained (rather than being contained by woodland). Reinstatement of hedges with substantial gaps and new field trees are proposed to north of Friston. These proposals focus on the re-establishment of historic field boundary hedgerows / tree lines; as well as tree blocks set back from farmhouses (e.g. Covert woods). The ***OLEMS*** has proposed planting not to enclose the historic farms in woodland, as this is not how they would have been experienced in the past. The reestablishment of historically mapped tree-lined enclosures close to the farms has been proposed, to retain farms in an open farmed landscape, whilst achieving screening through multiple lines of planting. In the area to the north of the onshore substation and National Grid substation, the ***OLEMS*** has proposed the establishment of larger woodland blocks akin to the existing pattern of woodland blocks within the wider landscape. It is therefore the Applicant's view that this mitigation is targeted towards addressing concerns arising from these inter-relationships.
007	Traffic and Transport - The Council considers that the proposals are inadequate in a number of ways including:	The Applicant disagrees with the Council that traffic and transport proposals are inadequate, as discussed below.

No.	Relevant Representation	Applicant's Comments
	• the provisions for abnormal loads are insufficient, particularly for the future as AIL access for maintenance and decommissioning are not assessed in either the ES or Transport Assessment (TA) beyond local widening of the B1069/A1094 junction; • the proposals to reduce the southbound A12 speed limit to 40 mph at the Friday Street A12/A1094 junction together with new rumble strips and an adjustment to the existing speed camera would not be adequate in the Local Highway Authority's professional opinion to avoid an increase in accidents and that alternative mitigation is required to do so including potentially a roundabout; • no provision has been made to enter into a planning obligation with the Local Highway Authority to cover the cost of necessary highways works, for example permanent changes to the A12 speed limit at Benhall; • the cumulative impact of this project and other future energy projects has not been assessed in transport terms, this specifically impacts the Stratford St Andrew Air Quality management Area (AQMA); • the operational, maintenance and decommissioning activities of EA1(N), EA2 have been scoped out of the ES and TA; • that limits of traffic movements have not been included in the outline Construction Transport	• An Abnormal Indivisible Loads (AIL) study is provided within ***Appendix 26.3*** (APP-529). No AILs will be required for maintenance and decommissioning except in emergency scenarios (i.e. failure of transformers). The assessment is not required to include provision for these activities. • As detailed in ***section 26.6.1.10.2*** of ***Chapter 26 Traffic and Transport*** (APP-074), a package of highway improvements is proposed, augmented with measures to manage employee traffic movements during peak hours. This is considered appropriate to avoid significant adverse impacts. Importantly the measures proposed do not compromise the potential deliverability of a roundabout likely to be proposed by EDF as part of the Sizewell C project. • The Applicant is currently in discussions with Suffolk County Council regarding mechanisms to cover the cost of necessary highway works through the SoCG process. • ***Appendix 26.2*** (APP-528) and ***Appendix 19.2*** (APP-491) present the cumulative impact assessments in relation to traffic and transport and air quality respectively. The assessments determined no exceedances in air quality objectives during construction at all receptors, including the Stratford St Andrew Air Quality Management Area (AQMA) (***section 19.3.2***). The Applicant has committed to updating the traffic and transport assessment following publication of the Sizewell C application which has recently been submitted to the Planning Inspectorate. The air quality assessment will be reviewed in light of the outputs of the updated traffic and transport assessment. • Potential traffic and transport impacts during operation and decommissioning are considered in ***section 26.6.2*** and ***26.6.3*** of ***Chapter 26 Traffic and Transport*** (APP-074) respectively. The assessment is consistent with the scope set out in the Scoping Report (SPR 2017).

No.	Relevant Representation	Applicant's Comments
	Management Plan to limit the transport impacts to those assessed in the ES and TA; • that the delivery of mitigation for these projects do not compromise routes already in use by other schemes e.g. Sizewell C, and; • protective provisions, similar to those included in the DCO for other statutory undertakers, are necessary to allow the Local Highway Authority to discharge its responsibilities to access, inspect and maintain the public highway within the order limits.	• The Applicant is discussing further refinement of the Construction Transport Management Plan through the SoCG process. • There are uncertainties regarding the start date for Sizewell C New Nuclear Power Station. The cumulative assessment in ***section 26.7.2.1*** of ***Chapter 26 Traffic*** therefore presents multiple scenarios to assess the potential interactions between the two projects. The worst-case cumulative scenario for the Project is the simultaneous construction with the East Anglia ONE North project (and vice versa) as this would lead to higher project-generated traffic flows due to both Projects being constructed simultaneously. Cumulative impacts with the Sizewell C New Nuclear Power Station are therefore considered alongside this scenario (scenario 1) to provide a worst-case CIA. No significant adverse impacts are predicted. ***Section 26.6.1.10.2*** sets out additional mitigation measures. A package of mitigation measures appropriate to the Project has been developed that allows the Project to proceed independently of the Sizewell C New Nuclear Power station proposals. • The Applicant notes the County Council's concerns regarding the discharge of its responsibilities. These concerns will be addressed through the SoCG process.
008	Seascape and Visual Effects – The in-combination impacts of the offshore wind turbines of both projects and the visual effects of EA2 alone, will result in significant adverse landscape and visual effects on the Suffolk coast including on the character and special qualities of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty. The offshore turbines will have a significant and long-term negative impact on a nationally designated landscape. Given the sensitivity and designation of the receiving landscape and seascape, the applicant has not demonstrably	The Applicant has demonstrated an ongoing commitment to reducing visual effects on the Suffolk coast. Following feedback to the PEIR, the Applicant has reduced the geographic extent of the East Anglia TWO windfarm site, helping to reduce visual effects on Suffolk Coast and Heaths AONB. More detail on the changes implemented between PEIR and ES are presented in ***section 28.3.3*** of ***Chapter 28 Seascape Landscape and Visual Impact Assessment*** (APP-076). As described in ***section 28.3.2*** of ***Chapter 28 Seascape, Landscape and Visual Impact Assessment***, the wind turbine sizes that are currently under consideration as the upper range of the Rochdale envelope are 250m wind turbines and 300m wind turbines. The realistic worst case layout assessed as the project design envelope for the SLVIA is the 60 x 300m wind turbine for

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	exhausted all reasonable mitigation measures in terms of design of the scheme, including the height of the turbines. The Council recognises that the principal consultee in respect of the impacts of the development on the AONB and their significance is Natural England. However, the Council is seeking to meet its duties under section 85 of the Countryside and Rights of Way Act 2000.	reasons described in ***section 28.3.2.1***. The height of the wind turbines is dependent on multiple factors and requires balance between engineering constraints, environmental impacts and commercial viability. The Applicant will continue to engage with the County Council on these matters through the SoCG process.
009	Cumulative Impacts –The full cumulative impacts of the existing and potential future projects in the east Suffolk area have not been adequately assessed within the applications.	The Applicant considers that the assessment of cumulative impacts of existing and potential future projects is robust. The approach to assessing cumulative effects with other development has been undertaken in accordance with the Planning Inspectorate Advice Note 17: Cumulative Effects Assessment (2018) (***section 5.1*** of ***Chapter 5 EIA Methodology*** (APP-053). The assessment methodologies and scope of other projects considered for each EIA topic have been developed with Local Planning Authorities and statutory stakeholders via Expert Topic Groups as described in ***section 5.3***. The Applicant is therefore of the view that the cumulative impacts have been adequately assessed and in line with the published guidance. The approach used for the CIA follows Planning Inspectorate Advice Note Nine and its complementary guidance in Advice Note 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17 as summarised in the following: • **Tier 1** – Projects under construction, permitted or submitted applications; • **Tier 2** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and

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		• **Tier 3** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent. Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to insufficient information available on which to base an assessment, in line with Advice Note 17. In some technical chapters, a more refined tiering system based on the guidance issued by JNCC and Natural England in September 2013[9] is employed. This approach was acknowledged within the Planning Inspectorate's Scoping Opinion (APP-033).
010	Mitigation and Compensation – Despite the assessments within the Environmental Statement identifying residual impacts from the projects regarding landscape and visual effects, seascape and visual effects, ecology and setting of heritage assets, no additional mitigation and/or compensation is proposed to be secured through a s106. Although funding secured via a s111 agreement is proposed, which the Councils understand cannot be a material planning consideration.	The Applicant has incorporated a range of embedded and additional mitigations within the project design, informed through the EIA process, in order to make the nationally significant infrastructure projects acceptable in planning terms. Nonetheless, the environmental statement has identified that there are likely to be some residual effects during construction and operation of the Project and the Applicant is continuing to engage with the County Council on the development of s111 agreements to provide additional measures which have the potential to reduce, offset or compensate for the residual impacts of the Project.
011	Socio-Economic – The County Council also welcomes the creation of a new Memorandum of Understanding which establishes a commitment for the local authorities and SPR to work in partnership to maximise the education, skills and economic benefits	The Applicant will continue to engage with Suffolk County Council with respect to base and marshalling ports. The Applicant is committed to managing pressures on the local and regional labour force by matching employment opportunities

[9] JNCC and Natural England (2013). Suggested Tiers for Cumulative Impact Assessment.

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	of the SPR offshore wind projects. The potential scale of local economic growth however hinges on the choice of both base and marshalling ports, which the applicant has not confirmed. The County Council will work with SPR to demonstrate the economic benefits of using the facilities at Lowestoft. Notwithstanding these positives, the County Council is concerned in relation to the cumulative pressures on the labour force, on the supply chain and on accommodation for workers with other major infrastructure projects, in particular the proposed Sizewell C new nuclear power station. The potential impact on tourism is not adequately addressed within the submissions especially when taking into consideration the visitor survey undertaken by the Destination Management Organisation (2019).	with a Skills Strategy that builds on the experience of the East Anglia ONE project. With regards to tourism and hospitality sector impacts, ***section 30.7.2.1.3*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078) adopts an assessment scenario whereby the Projects and Sizewell C workers will need tourist accommodation during peak tourism season. However, this is considered to be an unlikely worst case as EDF Energy now assume that workers for Sizewell C will choose to stay within the rental market. SPR and EDF Energy are in communication to understand each other's programme and plan accordingly to manage demand on the local tourism accommodation availability. Potential cumulative tourism and recreation disturbance impacts are described in ***section 30.7.2.1.4*** however it is considered that all projects will need to mitigate their impacts to acceptable levels. As described in ***section 3.4*** of ***Chapter 30 Tourism, Recreation and Socio-Economics***, there is no statutory guidance to direct the assessment of socio-economic, tourism and recreation impacts on local communities affected by Nationally Significant Infrastructure Projects (NSIPs). The Applicant has therefore developed an assessment methodology based on key legislation and regional and local policy and guidance. Please see sections ***30.4.1.1, 30.4.1.2*** and ***30.4.1.3*** for demonstration of the Applicant's policy compliance for tourism, recreation and socio-economics. This is also provided in ***section 6.24*** of the ***Development Consent and Planning Statement*** (APP-579). ***Section 30.3.1.4*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** explains the various internationally recognised concepts for social impact assessment and how the Applicant has adopted a best practice 'Sustainable Livelihoods Approach'. With respect to Tourism, the Applicant has followed guidance notes published by the Office for National Statistics and the National Academy of Coastal Tourism (***section 30.4.1.4.3***). The Applicant has followed the latest and best available guidance in developing the assessment

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		methodology and therefore consider the assessment of potential impacts on tourism to be adequate. .
012	Heritage - The assessments under predict the level of harm caused by the developments on the settings of some listed buildings and the County Council disagrees on the principle that the mitigation planting will help to reduce the impacts. The projects will also result in the loss of the historic parish boundary between Friston and Knodishall runs directly through the middle of the proposed substation locations which has not been adequately addressed.	It is noted by the Applicant that the presence of the onshore substation will represent a permanent / long-term change to the historic landscape character (HLC) to the west of Coldfair Green (and more specifically the northwest of Grove Wood) within and immediately surrounding the onshore substation location. The Applicant acknowledges that the onshore substation and National Grid substation is proposed to be located on the historic parish boundary of Friston. The Applicant has assessed the impact to the historic parish boundary in two ways; and also assessed the physical loss of the PRoW associated with the historic parish boundary: 1. The potential loss of any above ground boundary features associated with the historic parish boundary ***Section 24.6.1.2*** of ***Chapter 24 - Archaeology and Cultural Heritage*** (APP-072) assesses the potential impact on historic parish boundaries. The onshore development area includes six parish boundaries (PB1-6) five of which survive as visible features in the landscape (as trackways – PB1 and PB5 – or roads flanked by hedges – PB2 and PB3. The river that defines PB4 still follows the course of the boundary). The onshore cable corridor crosses five (PB2-6) of these parish boundaries (***Figure 16*** in ***Appendix 24.3***). Parish boundaries are discussed in greater detail in ***section 24.5.4*** of the chapter. The onshore substation and National Grid substation location includes one parish boundary (PB1). The hedgerows associated with this boundary are classed as "Important Hedgerows" (under the Hedgerows Regulations 1997) and are therefore considered to be heritage assets. With the application of embedded and site specific / additional mitigation for hedgerows (as outlined below), it is anticipated that the impacts and associated

No.	Relevant Representation	Applicant's Comments
		significance of effects on parish boundaries will be reduced or offset to levels considered non-significant in EIA terms (i.e. anticipated to be no worse than minor adverse). 2. The potential loss of associated views of Friston from the PRoW heading south ***Appendix 24.7*** (APP-519) discusses the '*public footpath that leads to Friston*', identifying changes to the user-experience of the PRoW associated with the Parish boundary (PB1): *[Cultural Heritage Viewpoint 4] illustrates a view looking south from close to Little Moor Farm (1215743) along the public footpath that leads to Friston. The church tower is visible on the skyline when walking south along this path and can be seen in the baseline photography at a range of 1.2km … It may be noted that it is proposed that this right of way will be diverted as it would be blocked by the onshore substations and National Grid substation. However, the southern end of this path closer to Friston would remain open and the views of the church in this final 350m closest to Friston would be unaffected.* The settings assessment concludes that the impact of the loss of the PRoW associated with the Parish boundary (PB1) results from the loss of views of the Friston Church tower when approaching Friston from the north along the footpath from Little Moor Farm. This results in a moderate adverse impact on the significance of Friston Church's setting. This impact is stated in ***Table 24.21*** in ***section 24.6.2.1*** of ***Chapter 24 Archaeology and Cultural Heritage***. 3. The potential loss of the trackway (PRoW) associated with the historic parish boundary The Applicant notes that the trackway associated with the historic parish boundary (PB1) is not a heritage asset recorded in the Historic Environment Record, nor is it formally designated.

No.	Relevant Representation	Applicant's Comments
		The assessment of impacts upon PRoW from the Project, i.e. the physical loss of the PRoW, is presented within ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078). ***Section 30.6.1.4.2.1*** states: *There are two PRoW in the location of the onshore substation and National Grid infrastructure that will require permanent diversion (ID number: E-354/006/0 and E-387/009/0). This could result in a significant impact but will be mitigated through consultation on a permanent diversion and landscaping to develop an attractive footpath that walkers can enjoy. Therefore, the residual impact is negligible long term and minor adverse before the landscape features mature.* The Applicant has engaged with the Suffolk County Council Archaeological Service through the Statement of Common Ground process and notes that the councils do not consider that the significance of the historic parish boundary and associated PRoW have been adequately captured. However, the Applicant considers that the historic parish boundary and associated PRoW have been assessed appropriately, as outlined above. Impact to HLC (including hedgerows and parish boundaries) will be minimised by returning field boundaries / areas / hedgerows to their preconstruction condition and character post-construction, as part of a sensitive programme of backfilling and reinstatement / landscaping (see ***section 24.3.3.1***). Certain hedgerows and field boundaries (e.g. parish boundaries) may require recording prior to the construction process and enhanced provisions made during backfilling and reinstatement. Further detail regarding hedgerow reinstatement is provided in the ***OLEMS*** (APP-584), the final LMP will be produced post-consent and agreed with the local planning authority. Impacts are assessed as minor adverse following the application of this mitigation (***section 24.6.1.2.3***). The potential for moderate adverse impacts on heritage assets such as Church of St Mary and Little Moor Farm is noted within the assessment in ***Chapter 24 Archaeology and Cultural Heritage***. In order to produce an accurate assessment of the contribution of historical setting to significance, an independent contractor (Headland Archaeology) was commissioned. The

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		subsequent conclusions and narrative provided in ***section 24.6.2.1*** are based on and supported by this independent study (***Appendix 24.7)*** (APP-519)). The Applicant is therefore of the view that an understanding of the historic landscape character has been adequately captured and potential impacts have been robustly assessed. As described above, an Outline Landscape Mitigation Plan was submitted as part of the ***OLEMS*** which seeks, among other objectives, to reduce adverse impacts on the heritage assets at Friston. The ***OLEMS*** has been developed to take into consideration historic landscape and re-establishing historic field boundaries. In areas to the immediate north of Friston, the re-establishment of historic field boundaries, filling gaps in existing hedgerows and introducing field boundary trees has been proposed to provide layered screening, rather than large-scale woodland planting close to the village. This allows the 'setting' of Friston to be retained (rather than being contained by woodland). Reinstatement of hedges with substantial gaps and new field trees are proposed to north of Friston. These proposals focus on the re-establishment of historic field boundary hedgerows / tree lines; as well as tree blocks set back from farmhouses (e.g. Covert woods). The ***OLEMS*** has proposed planting not to enclose the historic farms in woodland, as this is not how they would have been experienced in the past. The reestablishment of historically mapped tree-lined enclosures close to the farms has been proposed, to retain farms in an open farmed landscape, whilst achieving screening through multiple lines of planting. In the area to the north of the onshore substation and National Grid substation, the ***OLEMS*** has proposed the establishment of larger woodland blocks akin to the existing pattern of woodland blocks within the wider landscape. The capacity of the landscape to accommodate the onshore infrastructure has been assessed in relation to the natural screening afforded by landform, woodlands, trees and hedgerows. The onshore substation and National Grid infrastructure is located within a landscape with extensive mature woodland of large scale, which provides some capacity to absorb and provide screening of

No.	Relevant Representation	Applicant's Comments
		the onshore infrastructure (***section 29.10.3*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077).
013	Air Quality – The promotor's assessment shows a risk of adverse impacts to residential amenity if vehicle emissions do not improve as expected between 2018 and 2023. Should Sizewell C's DCO application be successful, cumulative construction traffic impacts from EA1N/EA2 and Sizewell C pose a risk to achieving the NO2 annual mean air quality objective within the Stratford St Andrew AQMA. Additional information to demonstrate that adverse impacts have been completely mitigated and managed is required. A requirement is recommended to ensure an action group review air quality monitoring data and proactively manage construction traffic to minimise exceedance risks.	The Applicant recognises that monitoring is an important element in the management and verification of the actual impacts based on the final detailed design. Where monitoring is proposed for air quality, this is described in the ***Outline Code of Construction Practice (OCoCP)*** (APP-578)**.**
014	Public Rights of Way – The impact of the developments on the amenity and the quality of the user experience of the public rights of way network has not been adequately addressed in the application. This aspect should be a separate theme within the Environmental Statements in order to address the impact on both the tourism industry and the local communities.	The Applicant notes the Council's concerns with respect to temporary and permanent closure of PRoWs north of the village of Friston and along the onshore development area on both the tourism industry and local communities. Impact on views experienced by users of the local Public Right of Way (PRoW) network are considered in ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077). PRoWs were included in the viewpoint locations agreed with the LVIA ETG for use in the LVIA of the onshore substation and National Grid Infrastructure as listed in ***Table 29.6***. Impacts on recreation and tourism relating to PRoWs have been assessed in ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078). The ***OLEMS*** (APP-584) has been developed to take into consideration potential impacts on users of PRoWs.

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		The ***Outline Public Rights of Way Strategy*** (APP-581) outlines the management principles to be adopted in ensuring that PRoW are managed in a safe and appropriate manner during construction and operation. Precise details for the management of each PRoW, including the specification of any PRoW temporary diversions during construction, works will be agreed with the Local Planning Authority (following consultation with the Local Highway Authority) through approval of the final PRoW Strategy prior to commencement of any stage of the authorised development that would affect a PRoW specified in Schedule 3 or 4 of the ***draft DCO*** (APP-023). For temporary stopping up of PRoW, Article 11 of the ***draft DCO*** requires the alternative right of way to be in place to the reasonable satisfaction of the Local Highway Authority before the existing PRoW can be temporarily stopped up There are two PRoW within the onshore development area which interact with the Project on a permanent basis during construction and also during operation. These will require permanent stopping-up and diversion (as listed in ***Table 3.1*** in the ***Outline Public Rights of Way Strategy*** (APP-581) and as shown on the ***Permanent Stopping up of Public Rights of Way Plan*** (APP-014). For PRoW which will be permanently stopped up, as set out in Article 10 of the ***draft DCO,*** the existing PRoW cannot be extinguished until the Local Highway Authority confirms that the alternative PRoW has been created to the standard defined in the final PRoW Strategy.
015	Flood Risk - Although recent flood events in Friston are thought not have had their origin within the proposed substation site the information within the application is not sufficient to determine how the proposed development would interact with existing drainage patterns.	The Applicant disagrees that information within the application is not sufficient. The Flood Risk Assessment (FRA) in ***Appendix 20.3*** (APP-496) is in accordance with EN-1 Overarching National Policy Statement (NPS) for Energy, National Planning Policy Framework (NPPF) (Ministry of Housing, Communities & Local Government 2019)[10], Planning Practice Guidance (PPG) for Flood Risk and Coastal Change (Ministry of Housing, Communities & Local Government

[10] MCLG (2019) NPPF
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf

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		2014)[11], and the Environment Agency's Climate Change Allowance guidance (Environment Agency 2016)[12]. As set out in ***section 20.7*** of the FRA (APP-496), the Applicant will undertake development of a catchment hydraulic model prior to construction, informing the preparation the final Surface Water and Drainage Management Plan to be approved by the relevant planning authority as per Requirement 22 of the ***draft DCO*** (APP-023). Requirement 22 states that no stage of onshore works can commence for that stage until the CoCP, including both a surface water and drainage management plan and a flood management plan has been submitted to and approved by the relevant local planning authority. This will be developed with regulators to ensure ongoing drainage of surrounding land and no increase in surface water flood risk. The Applicant will also produce a LMP to be approved by the relevant planning authority as per requirement 14 of the ***draft DCO***. Requirement 14 states that no stage of the onshore works can commence until for that stage a written LMP and associated work programme (which accords with the ***OLEMS*** and includes details of the ongoing maintenance and management of the landscaping works) has been submitted to and approved by the relevant planning authority. Discussions regarding flood risk are ongoing between the Applicant and the local planning authorities through the SoCG process.
016	Ecology – The County Council is concerned that there are some ecological receptors which are either not considered to have been fully assessed or have insufficient mitigation/compensation measures identified within the Environmental Statements and secured within the draft Development Consent Orders	The Applicant notes concerns regarding the assessment of ecology receptors, however, the Applicant considers the assessment to be robust. The Applicant's approach to the Ecological Impact Assessment (EcIA) is in accordance with industry accepted guidance and takes into account feedback received from the Onshore Ecology Expert Topic Group (ETG) meetings. See

[11] MCLG (2014) Flood Risk and Coastal Change. Available at: https://www.gov.uk/guidance/flood-risk-and-coastal-change
[12] Environment Agency (2016) Flood Risk Assessments: Climate Change Allowances. Available at: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

No.	Relevant Representation	Applicant's Comments
	(DCO). These include the impact on bats, hedgerows, woodlands and trees during construction and designated sites in relation to adverse impacts on air quality during construction. In addition to these areas the Councils are disappointed with the lack of commitment to biodiversity net gain.	***Appendix 22.1*** (APP-501) – ***Appendix 22.6*** (507) for evidence of all ecological surveys. The Applicant has committed to pre-construction ecological surveys to prior to commencement of the relevant works, secured through the production of an Ecological Management Plan (EMP). In terms of Requirement 21 of the ***draft DCO*** (APP-023), the EMP must be submitted to and approved by the relevant planning authority in consultation with the relevant statutory nature conservation body before onshore works can commence. The results of the assessment of nutrient nitrogen deposition on designated ecological sites are presented in ***section 19.6.1.2.2*** of ***Chapter 19 Air Quality*** (APP-067). Increases in nutrient nitrogen deposition were no greater than 1% of the Critical Load range at all transect locations (for Project and cumulative), including those closest to the road network. Impacts are therefore considered to be **not** significant. Net Gain is not applicable to Nationally Significant Infrastructure Projects (NSIP) and marine developments in the UK Government's draft Environment Bill. This is confirmed in the UK Government's response to the Department for Environment, Food and Rural Affairs (DEFRA) consultation on Net Gain[13].
017	Coastal Change – Further information is necessary to demonstrate the proposed works do not cause local cliff destabilisation or damage to the subsea crag outcrop and revisions are required to the requirements to ensure that the detailed design of the works is submitted for approval before construction commences.	The Applicant considers sufficent information has been proposed to demonsrate the proposed works do not cause local cliff detablisation or damage to the sub-sea crag outcrop. In order to assess the movement and stability of the shoreline and shallow subtidal areas, and the effects of coastal management plans over the next 50 years, a coastal stability study was also commissioned (see ***section 2.12*** of ***Appendix 4.6*** (APP-447)). The study showed that the main uncertainty associated with the coastline in the area is in terms of long term change in coastal processes, alongside change in

[13] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819823/net-gain-consult-sum-resp.pdf

No.	Relevant Representation	Applicant's Comments
		sea levels related to climate change. It was considered that the available information allowed a good assessment of the area in terms of present day trends of erosion, but that some caution has to be taken in extrapolating these trends into the future. The study was also able to quantify appropriate set back distances from the cliff line depending on where a future landfall location is chosen. This was proposed on a conservative precautionary approach. The Applicant has committed to setting back the landfall transition bays to the potential 100-year erosion prediction line to ensure the integrity of the cliff is not compromised and to allow for natural coastal erosion (***section 6.6.2*** of ***Chapter 6 Project Description*** (APP-054)). The coastal erosion predictions for the landfall area were discussed and presented to East Suffolk Council's (ESC) coastal engineer as part of the Landfall and Coastal Processes ETG in February 2018. At that time, the Applicant received agreement from ESC that the coastal erosion predictions were robust and that the conservative buffer for setting back the landfall HDD transition bay area of search (***Figure 6.6*** (APP-101)) was appropriate. In May 2018, ESC's coastal engineer provided beach transect plots prepared by the Environment Agency after the late February / early March 2018 prolonged series of onshore winds. They showed updated cliff retreat data over the frontage to the north of Thorpeness Village from 2013 to March 2018. These transects were reviewed against the initial coastal erosion predictions in July 2018. The review concluded that the overall extents of erosion set out in the original report were robust when considering the more recent rates of erosion as there is no evidence that a fundamental change in the broader scale longer term processes exists. ESC's coastal engineer agreed that the data had been considered appropriately and that the conclusions of the coastal erosion predictions were robust. The Applicant has committed to providing a landfall construction method statement as per Requirement 13 of the ***draft DCO*** (APP-023) to be approved

No.	Relevant Representation	Applicant's Comments
		by the relevant planning authority before works on the landfall connection and onshore transmission works at the landfall can commence.
018	Archaeology – The submitted information falls short of the level of detail required by the County Archaeologists. This calls into question the delivery of the schemes within the red line boundary.	The Applicant will continue to engage with the County Archaeologists to minimise potential impacts regarding buried archaeological remains. Additional measures will be secured within the final Written Scheme of Investigation (Onshore) and pre-commencement archaeology execution plan, to be agreed with Suffolk County Council Archaeology Service (SCCAS).
019	Land Use – The proposals will result in the loss of an area of the best and most versatile agricultural land.	The Applicant notes that that some agricultural land will be permanently lost due to the permanent operational infrastructure and the additional landscaping footprint. However, the impact is considered to be of **minor adverse** significance in the context of the county's total farmed resource (see ***section 21.6.2.1.2***). Requirement 29 of the ***draft DCO*** requires the Applicant to reinstate land used temporarily for construction of the onshore works and not ultimately incorporated in permanent works or approved landscaping. This must be done in accordance with such details as the relevant planning authority in consultation with the relevant highway authority may approve, within twelve months of completion of the relevant stage of the onshore works or such other period as the relevant planning authority may approve. This will ensure that land is returned to its original use as far as practicable following construction and that there are no long-term significant impacts (***section 21.7.1).*** Embedded mitigation pertaining to land use and agriculture is set out in ***section 21.3.3*** of ***Chapter 21 Land Use*** (APP-069). This includes a narrowed onshore cable route swathe and a commitment by the Applicant to produce a Soils Management Plan (SMP) to protect the integrity of the soil. Through engaging with local land owners and minimising land take where practicable, the Applicant has sought to reduce the potential impacts on agricultural land.

No.	Relevant Representation	Applicant's Comments
020	Construction Management – There are specific points along the onshore cable corridor where the order limits are constrained, or the construction works will occur very close to residential properties i.e. area south of Sizewell Gap Road, Hundred River Crossing and Friston. Further work is necessary to understand how construction in these areas would be managed to minimise harm.	The Applicant notes the concerns raised by the Council regarding construction management. The ***Outline Code of Construction Practice (OCoCP)*** (APP-578) sets out the general principles and control measures to be adopted during construction, including measures to protect local residents from noise disturbance. Specific noise control measures and requirements for monitoring will be included within a Construction Phase Noise and Vibration Management Plan, submitted to and approved by the Local Planning Authority as part of the final CoCP. A Stakeholder Communications Plan will also be developed as part of the final CoCP to ensure effective and open communication with local residents and businesses that may be affected by the construction works. The Applicant will continue to engage with the County Council regarding their concerns in this regard, through the SoCG process.
021	Major Accidents and Disaster Assessment - The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 introduced the requirement for Major Accidents and Disasters to be considered as part of the EIA process. The Civil Contingencies Act 2004 (Contingency Planning) Regulations 2005 places a duties on Category 1 responders, including Suffolk County Council, to assess risks of emergencies, both natural and man made, and to maintain emergency plans to mitigate, manage and control the effects of such emergencies to protect the public and the environment. There does not appear to be any reference to statutory civil contingency risk information nor has there been any consultation prior to these DCO applications with the Suffolk Local Resilience Forum to understand detailed local risk information and related emergency	The Applicant will prepare and submit an Emergency Incident Response Plan for approval by the relevant planning authority prior to the commencement of specified works. This is secured under Requirement 33 of the **d*raft DCO*** (APP-023) The Applicant has engaged with the Suffolk Joint Emergency Planning Unit and provided information to allow an assessment of the DCO on existing off-site emergency arrangements made under The Radiation (Emergency Preparedness and Public Information Regulations) 2019 (REPPIR). The Suffolk Joint Emergency Planning Unit have confirmed that provided an appropriate change to the REPPIR off site emergency plan is made and emergency arrangements made by the Applicant are in place prior to any work taking place, the existing off site radiation emergency arrangements for Sizewell B Nuclear Power Station can be adequately maintained. The Suffolk Joint Emergency Planning Unit have requested two conditions to be included in the ***draft DCO*** (APP-023). The Applicant will consider the wording of these requirements during the SoCG Process.

No.	Relevant Representation	Applicant's Comments
	planning to allow an assessment of vulnerability to take place. There is reference to Control of Major Accident Hazard Regulations but this is not appropriate in for this development unless the construction site is going to utilise hazardous materials that take operations into lower or upper tier status under these regulations. Accordingly, there is no description of measures to prevent or mitigate the significant adverse effects of such risks on the environment or details of the preparedness for and proposed response to such emergencies. This makes it difficult to understand whether the onshore construction activity has been properly assessed against the pre-existing civil emergency risks or if aspects of the construction activity itself may impact on pre-existing Suffolk emergency response arrangements.	
022	Development Consent Order – As drafted at present there are a number of areas that need amendment in the light of the above concerns.	The Applicant is working with Suffolk County Council on all topics through the SoCG process to agree suitable wording, where appropriate, within the DCO.
023	The County Council's Summary Position a) welcomes in principle the proposals for EA1N and EA2 in respect of their benefits in terms of reducing carbon emissions and help meet the climate change emergency and in bringing high skill jobs and growth to Suffolk, but; b) objects to the location of the proposed substation and associated development at Friston due to the	The Applicant is keen to ensure the benefits of the project are maximised whilst continuing to engage with Suffolk County Council and other relevant stakeholders to ensure potential negative impacts are minimised.

No.	Relevant Representation	Applicant's Comments
	scale of the impact on the community and environment; c) is of the opinion that the proposals do not adequately address some significant issues, including specifically the significant impact of the offshore turbines on the Suffolk Coast and Heaths AONB and the impact on the highways network, particularly in combination with the proposed SZC development; d) will continue to seek and advocate for s106 agreements to secure appropriate mitigation and/or compensation in relation to the identified impacts of the proposals, and; e) continue to raise our concerns with government regarding the cumulative impacts resulting from the uncoordinated development of these and other energy projects along the Suffolk coast.	

3 Comments on Town and Parish Councils Relevant Representations

6. The Applicant's comments on Relevant Representations received from town and parish councils can be found in ***Table 5*** to ***Table 17*** below.

3.1 Aldeburgh Town Council (RR-001)

Table 5 Applicant's Comments on Aldeburgh Town Council's Relevant Representation

No.	Relevant Representation	Applicant Response
001	ATC believes the proposal by SPR to utilise roads in Aldeburgh for HGV movements would have a serious impact on the lives of residents and visitors and would have a major detrimental effect on the town's economy. ATC will demand substantial mitigation measures if the current road proposals for Aldeburgh are adopted.	The Applicant notes Aldeburgh Town Council's concerns regarding Heavy Goods Vehicles (HGV) movements. Following Phase 4 Consultation, the Applicant has taken significant steps reduce the potential impact of HGV traffic[14]: • The Applicant is no longer proposing to use Thorpeness Road to access the landfall area during construction, removing all HGV traffic from the Thorpeness Road. All vehicle access to the Landfall during construction will be via Sizewell Gap, a designated 'zone distributor route' identified as suitable for HGVs under Suffolk County Council's Lorry Route Network. • This in turn means a significant reduction in the number of HGVs using the roundabout and Leiston Road. The total daily two-way HGV movements (i.e. arrivals and departures) are therefore reduced from 55 HGV to 10 HGVs at the peak period. • Aldeburgh Roundabout - the removal of Thorpeness Road as a vehicle access route allows for the removal of the Aldeburgh roundabout at Saxmundham Road/Leiston Road. <u>HGV Movements through Aldeburgh</u> The Applicant notes Aldeburgh Town Council's concerns regarding HGV movements. ***Chapter 26 Traffic and Transport*** (APP-074) provides an assessment of the traffic and transport effects of the Project. In addition, ***Appendices 26.1 –26.26*** (APP-527-APP-552) provide further information on detailed aspects of this assessment. It is the Applicant's view that the embedded mitigation set out in ***section 26.3.3*** of ***Chapter 26 Traffic and Transport*** (APP-

[14] https://www.scottishpowerrenewables.com/pages/developing_our_plans.aspx

No.	Relevant Representation	Applicant Response
		074) and the additional mitigation measures described in ***section 2.1*** the ***Outline Construction Traffic Management Plan (CTMP)*** (APP-586) are appropriate. ***Section 2.2.4*** of the ***Outline CTMP*** describes control of HGV routes affecting Aldeburgh**:** • An existing highway constraint was identified at the roundabout junction of the A1094 and B1122 in Aldeburgh whereby large articulated HGVs delivering to section 3B (access 5 and 6) would have to pass into the oncoming lane when exiting the roundabout. This would be to undertake works to a small part of section 3 (section 3B) of the onshore cable route that is located either side of the B1122 to the south of Aldringham; • To mitigate the risk, all deliveries to section 3B would first be required to travel to the Construction Consolidation Site at access 10 (located off the B1069). The CTMP Coordinator would then seek to consolidate loads on appropriately sized HGVs for onward transfer to accesses 5 and 6. This proposed HGV route is illustrated in ***Figure 2*** of the ***Outline CTMP***; and • Where loads cannot be consolidated, and an articulated HGV is required to transport the load, then a pilot vehicle would be utilised. The pilot vehicle would depart from access 10 ahead of the HGV, at the junction with the A1094 and B1122, the pilot vehicle would run ahead of the escorted HGV and stop any oncoming traffic to enable safe manoeuvring through the roundabout arms. This is expected to be an infrequent event during construction. As described above regarding the Applicant's changes to the Project to reduce the impact of HGV traffic, a peak of 10 two-way HGV movements per day will be required during works on this section (see ***Table 2.1*** of the ***Outline CTMP***) The expected duration of this two way HGV movement is less than one per hour per day during the construction period of a small part of the onshore cable route (section 3b). Therefore, it is the Applicant's view that these levels of HGV movement would not have a material impact on residents or visitors.

No.	Relevant Representation	Applicant Response
		Health Impacts to Residents Using the methodology agreed with Public Health England, human health effects due to changes in noise (***section 27.6.1.1***), air quality (***section 27.6.1.2***), ground or water contamination (***section 27.6.1.3***) and reduced access to health services (***section 27.6.1.5***) as a result of an increase in the number of HGVs or employee vehicles on the road and temporary traffic management at certain locations have been assessed. The assessment outlined in ***Chapter 27 Human Health*** (APP-075) finds that for the general population there would be not significant (in EIA terms) effect on human health as a result of the Project.
002	ATC believes the current SPR proposals have failed to recognise the negative impact on the town's tourist trade.	The Applicant disagrees that the development of the onshore elements of the Project will have a negative impact on the town's tourist trade. ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078) provides an assessment of the tourism related effects of the projects. In addition, ***Appendix 30.2 Literature Review -Windfarm Impact on the Tourism Industry*** (APP-571) provides further information on previous studies done on similar types of project. Effects on tourism and recreation may potentially arise from two pathways: The first pathway is from direct impacts upon tourism and recreation assets during construction of the Project (i.e. physical disturbance – air quality, noise etc in ***Table 30.67, Table 30.68 and Table 30.69, Chapter 30 Tourism, Recreation and Socio-Economics***). The assessment also takes account of construction effects from transport and these have been fully assessed in ***Chapter 26 - Traffic and Transport*** (APP-074), ***Section 26.6. 1.11 Impact 4: Driver Delay (Capacity)*** and section ***26.6.1.12 Impact 5: Driver Delay (Highway Geometry)***. No significant adverse effects are predicted after mitigation described in the inter-related chapters (i.e. ***Chapter 19 Air Quality*** (APP-067), ***Chapter 20 Water Resources and Flood Risk*** (APP-068), ***Chapter 25 Noise and Vibration*** (APP-073) ***Chapter 26 Traffic and Transport*** (APP-074)). The second pathway is from the perception of large-scale developments as being an adverse impact on the area as a tourist destination. Whether there is a

No.	Relevant Representation	Applicant Response
		perception of development by visitors or potential visitors (and therefore an actual pathway for impact) will depend on two factors. Firstly, a development would need to be in the public eye and known to potential visitors. Although the Project is a Nationally Significant Infrastructure Project it is not an iconic project (e.g. Crossrail, Sizewell C New Nuclear Power Station, Heathrow Airport), and unlikely to be widely known or understood as a distinct project by the general public or visitors. Indeed, this point is supported by the DMO Report (*The Energy Coast Implications, impact & opportunities for tourism on the Suffolk Coast*) which states that *"Half of regional market* [visitors who responded to the DMO survey living within 3 hours of the Suffolk Coast] (*51%) unaware of EDF plans for Sizewell C whilst two-thirds (65%) unaware about SPR's plans*" (page 26). Secondly visitors already in the area would need come into contact with construction activity or traffic effects and link that to the Project. This would affect only visitors to the proximity of the onshore study area and as noted above all traffic impacts that would affect visitors (e.g. driver delay) were assessed as non-significant in EIA terms. Cumulative tourism and recreation disturbance impacts will come from the same two pathways; i.e. direct impacts upon tourism and recreation assets from construction and secondly from the perception of multiple large scale developments as being an adverse impact on the area as a tourist destination. With regard to the direct impacts, all projects (i.e. East Anglia TWO. East Anglia ONE North and Sizewell C) will need to mitigate their impacts to acceptable levels or provide similar mitigations for assets such as PRoWs. Proposed mitigation for the Project can be found in the following documents: ***Outline Public Rights of Way Strategy*** (APP-581), ***Outline Code of Construction Practice*** (APP-578) and the ***Outline Landscape and Ecological Management Strategy*** (APP-584). These documents provide the basis for the mitigation which will be set out in final documents which must be approved by the Local Planning Authority before onshore works can commence. Both of the Projects have this mitigation and Sizewell C would need to have similar requirements. It is therefore assumed that, with the exception of traffic impacts, these direct impacts would not be significant

No.	Relevant Representation	Applicant Response
		cumulatively as each project would mitigate their own impacts and unless projects had overlapping footprints there would be limited potential for cumulative impacts upon the same receptor. Given mitigation commitments it is considered that these impacts would be of negligible significance (see ***Table 30.71*** and ***Table 30.84***).
003	ATC believes the development would cause significant harm to the Area of Outstanding Natural Beauty and damage the local environment for many years.	The Applicant notes Aldeburgh Town Council's concerns regarding the AONB. The landscape impact of the cable route construction, specifically its effect on the Estate Sandlands Landscape Character Type and AONB special qualities, is described in ***section 29.6.1.2*** and ***Appendix 29.3*** (APP-567) (Section 29.3.2) of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077). The impact on the Suffolk Coast and Heaths AONB with regards to seascape is also considered in ***section 28.7.3.2*** of ***Chapter 28 Seascape Landscape and Visual Impact Assessment*** and ***Appendix 28.4 Landscape Assessment*** (APP-559)***.*** <u>Onshore infrastructure</u> Significant, short-term, temporary construction stage effects on the landscape/scenic quality and wildness/tranquillity special qualities of Area A (between Thorpeness, Sizewell and Leiston) of the AONB (***Figure 29.3*** (APP-393) will primarily be experienced over several separate short 2-3 month periods of peak construction activity and not continuously throughout the construction phase. Over the majority of the construction stage, the relevant section of the onshore cable route will not be subject to these key construction works and the onshore cable route will primarily consist of installed infrastructure and stripped topsoil to be reinstated, during which time the effects on these AONB special qualities are not considered significant due to the limited construction activity. Given its route primarily through farmland and avoiding features of natural heritage value, the construction of the onshore cable route is assessed as having no significant effects on the natural heritage features of the AONB. In order to minimise duration of impacts on the AONB arising from the onshore cable crossing of the Sandlings Special Protection Area (SPA), the Applicant has committed to a reduced onshore cable working width of 16.1m (reduced from 32m) for a length of up to 300m, depending on the detailed design, if open cut

No.	Relevant Representation	Applicant Response
		trenching is employed. This technique means the duration of works associated with crossing the Sandlings SPA will be shorter compared with trenchless techniques (HDD). After exiting the AONB, the onshore cable route then takes a route which runs parallel to the western edge of the AONB between Leiston and Aldringham. In this area, outside the AONB, there will be no direct effects from construction of the onshore cable route on the landscape elements/physical features of the AONB (Area B–between Thorpeness, Aldeburgh and Snape). There will be no significant effects on the landscape and scenic quality of the setting, relative wildness, tranquillity, natural and cultural heritage features of the AONB as a result of visibility of the construction of the onshore cable route when it is in close proximity to the AONB boundary. To the south of Aldringham, the onshore cable route extends west away from the coastal areas of the AONB towards the onshore substation, becoming increasingly distant from the coastal part of the AONB, while running parallel to, and approximately 1km north of the area of AONB covering the River Alde estuary. The construction of the onshore cable route over this section will have no significant effects on the special qualities of the AONB. The effect of the onshore cable route during construction is therefore only assessed as having significant, short-term and temporary effects on the character of the AONB within a localised area of the onshore cable route between Thorpeness, Sizewell and Leiston (Area A), as shown in ***Figure 29.8*** (AAP-398) but is assessed as not significant, short-term and temporary on the wider AONB within the LVIA study area (Areas B and C (between Sizewell and Dunwich Forest)).It is anticipated that once operational, the potential effects of the landfall and onshore cable route would not be significant due to their presence underground. The assessment of these components during the operational phase has been scoped out of the LVIA, as agreed through the scoping process, with the exception of the removal of woodland west of Aldeburgh Road to facilitate the onshore cable route crossing of Aldeburgh Road (B1122) which is assessed as an

No.	Relevant Representation	Applicant Response
		operational impact in ***section 29.6.2.1.1*** of ***Chapter 29 Landscape and Visual Impact Assessment***. Offshore Infrastructure Potential impacts of the East Anglia TWO windfarm site on relative tranquillity and relative wildness with regards to seascape are assessed in ***Appendix 28.4 Landscape Assessment*** and summarised in ***section 28.7.3.2.3*** of ***Chapter 28 Seascape Landscape and Visual Impact Assessment***. No significant effects are predicted for Relative Tranquillity. Significant effects are predicted for Relative Wildness only in respective of the open and expansive views offshore. This is a particular effect on one aspect of relative wildness that derives from changes to views from the AONB. From the southern parts of the AONB coastline, there is little or no visibility of the East Anglia ONE North windfarm site, therefore the potential for additional cumulative effects on the special qualities of the AONB can largely be discounted, with the effect resulting entirely from the presence of the offshore infrastructure. 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 result in relatively minimal 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.
004	ATC believes the SPR proposals do not pay sufficient regard to the cumulative impact of other National Strategic Infrastructure Projects planned for this area.	The Applicant has undertaken a cumulative impact assessment (CIA) each of the considered receptor topics in ***Chapters 7 to 30*** (APP 055-078) of the Environmental Statement. The approach used for the CIA follows Planning Inspectorate Advice Note 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information

No.	Relevant Representation	Applicant Response
		to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17 as summarised in the following: • **Tier 1** – Projects under construction, permitted or submitted applications; • **Tier 2** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and • **Tier 3** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent. Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to insufficient information available on which to base an assessment, in line with Advice Note 17. In some technical chapters, a more refined tiering system based on the guidance issued by JNCC and Natural England in September 2013[15] is employed. This approach was acknowledged within the Planning Inspectorate's Scoping Opinion (APP-033). The CIA takes into consideration other relevant windfarm projects (including concurrent and sequential construction of each individual East Anglia TWO and East Anglia ONE North project) and industrial activities. Each CIA describes a screening exercise which has been undertaken to screen in potential inter-related impacts and then potential projects to the assessment. Sizewell C New Nuclear Power Station was screened into and assessed in a number of the topic cumulative impact assessments however due to a lack of available data at the time of writing, some of these had to be conducted qualitatively, when a quantitative assessment would have been desirable, for

[15] JNCC and Natural England (2013). Suggested Tiers for Cumulative Impact Assessment.

No.	Relevant Representation	Applicant Response
		example for the traffic and transport and air quality impact assessments. The Applicant has committed to carrying out full quantitative CIAs for these topics. The required information to inform this has now been submitted within the Sizewell C New Nuclear Power Station Application. The updated CIA (as appropriate) will be submitted during the Examination of the Project. Further information regarding the proposed construction scenarios for the Projects is given within each onshore technical chapter. The CIA of the Projects is summarised within each technical chapter and the assessment itself is provided as an appendix to each technical chapter. The worst-case scenario of each impact from this CIA is then carried through to the main body of the CIA which considers other developments which have been screened into the onshore CIA assessment.

3.2 Aldringham cum-Thorpe Parish Council (RR-008)

Table 6 Applicant's Comments on Aldringham-cum-Thorpe Parish Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	Aldringham-cum-Thorpe Parish Council fully supports the migration to green energy. However, due to suitability of the North Sea to produce wind energy it is vital that a full strategic review is undertaken (as requested in the letter of the 28th October 2019 to the Secretary of State for Business, energy and Industrial Strategy from three East Anglia MPs) of how this energy is brought ashore, with appropriate regard to the combined and lasting impacts of all known schemes on the coastal communities and environment that this energy is supposed to protect.	Noted.
002	Throughout the consultation process the Parish Council have consistently raised their overriding view that more large-scale industrial developments, such as wind farm substations, are inappropriate for this section of the Heritage Coast due to its naturally flat and wildlife rich habitat.	The Applicant notes Aldringham-cum-Thorpe's position regarding development. As described in ***section 6.7.6*** of ***Chapter 6 Project Description*** (APP-054)**,** from the outset, careful siting of the onshore substation and National Grid substation has set out to avoid key areas of sensitivity wherever possible. Embedded mitigation has included: • Careful siting of the onshore substation (and National Grid substation) to the west and south of existing woodland blocks to gain maximum benefit from existing screening; • Careful siting of the onshore substation and National Grid substation in close proximity to the existing overhead lines to reduce additional cabling requirements and to minimise proliferation of infrastructure; and • Siting the onshore substation and National Grid substation in an area of low flood risk (Flood Zone 1) as shown in ***Figure 20.2*** (APP-266). A Red / Amber / Green (RAG) assessment (***Appendix 4.2*** (APP-443)) was undertaken to score potential substation locations. These were scored against

No.	Relevant Representation	Applicant's Comments
		criteria agreed with statutory consultees. These included archaeology / heritage, ecology, landscape, hydrology and hydrogeology, engineering, community, landscape and visual, property and planning. The RAG assessment did not identify the chosen onshore substation site, rather it was a tool that allowed a number of sites to be compared and the most acceptable sites identified at the time to progress to further assessment stages. The culmination of the various work streams as described in ***section 4.9.1.3*** enabled the Applicant to decide that the substation zone northeast of Friston (Zone 7) was the proposed zone to be taken forward. Further detail on the implementation and micro-siting of the onshore substations is provided within the ***Scheme Implementation Report*** (APP-596).
003	This area already makes significant contribution to the nation's energy supply, hosting two nuclear power stations and two wind farm substations, and have already suffered many years of disruption. We are now facing the daunting prospect of many more years of disruption and damage from the following large-scale infrastructure projects - EA1N and EA2 Offshore Wind Farms, Sizewell C Nuclear Power Station, the National Grid Ventures Nautilus & Eurolink and possible extensions of the Greater Gabbard & Galloper Wind Farms. The cumulative impact of all these projects should be considered alongside EA1N and EA2 DCO Applications	A cumulative impact assessment (CIA) has been carried out for each of the considered receptor topics in ***Chapters 7 to 30*** (APP 055-078) of the Environmental Statement. The CIA takes into consideration other relevant windfarm projects (including concurrent and sequential construction of each individual East Anglia TWO and East Anglia ONE North project) and industrial activities. Each CIA describes a screening exercise which has been undertaken to screen in potential inter-related impacts and then potential projects to the assessment. The Applicant's approach used for the CIA follows Planning Inspectorate Advice Note 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17, as summarised in the following: • **Tier 1** – Projects under construction, permitted or submitted applications; • **Tier 2** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and • **Tier 3** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the

No.	Relevant Representation	Applicant's Comments
		relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent. Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to insufficient information available on which to base an assessment, in line with Advice Note 17. In some technical chapters, a more refined tiering system based on the guidance issued by JNCC and Natural England in September 2013[16] is employed. This approach was acknowledged within the Planning Inspectorate's Scoping Opinion (APP-033). The CIA takes into consideration other relevant windfarm projects (including concurrent and sequential construction of each individual East Anglia TWO and East Anglia ONE North project) and industrial activities. Each CIA describes a screening exercise which has been undertaken to screen in potential inter-related impacts and then potential projects to the assessment. Following the guidance in Advice Note 17, the below projects were not considered in the CIA because at the time the Project CIAs were written there was inadequate detail upon which to base any meaningful assessment (with no information on, for example, the project design, and timescales): • Nautilus • EuroLink • Greater Gabbard Offshore Windfarm Extension • Galloper Offshore Windfarm Extension Each of these projects is nationally significant and therefore will require its own EIA and as part of that will need to undertake a cumulative assessment. Each of

[16] JNCC and Natural England (2013). Suggested Tiers for Cumulative Impact Assessment.

No.	Relevant Representation	Applicant's Comments
		the above projects will consider the Project in each of their respective EIAs as they progress through the planning process. Sizewell C New Nuclear Power Station was screened into and assessed in a number of the topic cumulative impact assessments however due to a lack of available data at the time of writing, some of these had to be conducted qualitatively, when a quantitative assessment would have been desirable, for example for the traffic and transport and air quality impact assessments. The Applicant has committed to carrying out full quantitative CIAs for these topics. The required information to inform this has now been submitted within the Sizewell C New Nuclear Power Station Application. The updated CIA (as appropriate) will be submitted during the Examination of the Project.
004	The extensive area of land required within the AONB, SSSI and Heritage Coast will change this beautiful landscape forever. Large scale developments in this location have the potential to significantly impact the fragile coastal margins, causing further cliff destabilisation, as well as removing many unique habitats which support numerous protected species.	The Applicant notes the concerns with respect to the AONB, SSSI and Heritage Coast. Responses to each of the points raised are addressed below. <u>Site Selection with respect to AONB, SSSI and Heritage Coast</u> The location of the onshore cable corridor is driven by the location of the onshore substations (***section 4.9.1*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052)) and the location of the landfall (***section 4.9.1*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052)). Some example key site selection principles in the site selection process include: • Avoid direct significant impacts to internationally and nationally designated areas (e.g. SACs, SPAs, and SSSIs etc.) where possible; • Minimise significant impacts to the special qualities of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty; and • Minimise interaction with mature woodland. ***Section 24.3.3*** of ***Chapter 24 Archaeology and Cultural Heritage*** (APP-072) describes the site selection process with respect to cultural heritage. The onshore development area has undergone an extensive site selection process to

No.	Relevant Representation	Applicant's Comments
		avoid direct physical impacts on designated heritage assets from the outset. As such, the embedded mitigation of the Project in this regard ensures that no designated heritage assets will be subject to direct physical impacts arising from the Project. ***Appendix 24.8*** (APP-521) undertakes a screening exercise designed to identify those onshore heritage assets (summarised under three headings: military coastal defence; maritime trades and activities; and seaside holiday resorts) where there is potential for heritage significance to be materially affected by change in their settings due to the operation of the offshore infrastructure proposed for the Projects. It was concluded the predicted visual change in setting due to the operation of the Projects would result in very limited harm to the significance of at least some designated heritage assets associated with seaside holiday resorts (which included consideration of Southwold and Aldeburgh Conservation Areas). In EIA terms this would equate to no significant adverse effects on onshore heritage assets from the presence of the offshore infrastructure for the Projects. It was also concluded that the predicted visual change in setting due to the operation of the Projects would cause no harm to the significance of assets related to military coastal defence and maritime trades. With respect to the heritage coast, the Suffolk Heritage Coast is located within the LVIA study area and is largely contained within the AONB. The Technical Assessment in ***Appendix 29.3 Landscape Assessment*** (APP-567) describes and assesses the effects of the onshore infrastructure of the Project on the special characteristics and qualities of the Suffolk Heritage Coast as part of the assessment of the AONB. As its geographic area is largely within the AONB and its protection policies are now incorporated into the AONB Management Plan, the effects on the Suffolk Heritage Coast are considered as integral to this assessment of the AONB (***section 29.5.3.2*** of ***Chapter 29 Landscape and Visual Impact Assessment***).

No.	Relevant Representation	Applicant's Comments
		Section 22.3.3 of ***Chapter 22 Onshore Ecology*** (APP-070) describes the consideration of designated sites in the site selection process, specifically The Sandlings SPA and component Leiston-Aldeburgh SSSI. The project design minimises the overlap of the onshore cable corridor with these designated sites, choosing a crossing at the narrowest point, within habitat where no records of ornithological target species were found. AONB impacts during Construction of Onshore Cable Route The decision to use underground cable systems for the onshore cables, avoids the requirement to construct new overhead lines. The mitigation embedded in this approach would lead to notably reduced impacts on landscape and visual receptors during the construction phase and no impacts during the operational phase. It also notably reduces the potential for the onshore cable route to contribute to significant cumulative effects. The construction works for the onshore cables would be of a notably smaller scale than those required to install new overhead lines and post construction the onshore cable route would have a negligible impact on landscape and visual receptors as the components for the onshore cables would be buried under ground (***section 29.3.3*** of ***Chapter 29 Landscape and Visual Impact Assessment***). ***Section 29.3.3.2*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077) describes how the onshore cable route has been designed to follow a route that avoids and minimises the felling of hedgerows, stands of woodlands / shelterbelts and patches of heathland vegetation, as far as possible. There are, however, locations along the cable route where the onshore cable route construction will breach existing hedgerows, resulting in felling of some sections of hedgerow. Where possible, replacement hedgerow and tree planting will be undertaken at the end of the construction stage to reinstate hedgerows and trees within the onshore cable route. Where sections of hedgerow are to be felled, replacement planting will be undertaken along the original hedgerow field boundary line, using a bespoke hedgerow planting mix that is appropriate to each location. Bespoke hedgerow

No.	Relevant Representation	Applicant's Comments
		and tree replanting locations will be identified in the landscape mitigation plan and planting mixes specified in the planting schedule as part of the ***OLEMS*** (APP-584). The bespoke hedgerow replanting will include a range of hedgerow species, with the planting mix tailored to each location according to the existing hedgerow species present, the character of the hedgerow. Hedgerow replacement planting over the cable trenches is acceptable as hedgerow roots are typically 800mm deep and the cables a typical 1.25m depth to the top of the cables. High impact, polyethylene polymer cable protection covers will also be laid within the cable trench and will also afford protection against hedgerow roots. The Applicant has committed to reinstating any land within the Order limits which is used temporarily for construction of the onshore works and not ultimately incorporated in permanent works or approved landscaping. This is secured under Requirement 29 of the **d*raft Development Consent Order*** (DCO) (APP-023). <u>AONB Landscape impacts during Operation</u> The operation of the onshore substation and National Grid infrastructure will have no significant effects on the character or special qualities of the AONB. The onshore substation and National Grid infrastructure are located outside the AONB and its immediate setting, approximately 1.6km to the north of the AONB at its closest point (where the AONB covers the estuary of the River Alde) and 3.7km to the west of the edge of the main 'coastal' area of the AONB (near Aldringham (Area A)). The special qualities of the AONB will not be subject to change as a result of the operation of the onshore substation and National Grid infrastructure due to the distance of the onshore substation and National Grid infrastructure from the AONB and their limited visibility from within the AONB. <u>Impacts to habitats</u> As stated in sections ***22.6*** and ***22.10*** of ***Chapter 22 Onshore Ecology*** (APP-070), the potential impacts to habitats have been fully assessed by way of desk-

No.	Relevant Representation	Applicant's Comments
		based assessments and surveys. The chapter concludes negligible to minor impacts to habitats through construction and operation of the Project. • ***Chapter 22 Onshore Ecology*** (APP-070); • ***Appendix 22.3 - Extended Phase 1 Habitat Survey (Part 1 of 2)*** (APP-503); • ***Appendix 22.3 - Extended Phase 1 Habitat Survey (Part 2 of 2)*** (APP-504); and • ***Figure 22.4a-f - Extended Phase 1 Habitat Survey Results*** (APP-277) <u>Cliff erosion and instability at Thorpeness</u> As described in **section 4.8** of ***Chapter 4 Site Selection and Alternatives*** (APP-052), an engineering feasibility study was commissioned to review the landfall options in terms of construction and cost. This included a review of beach and sea bed geology, tides and currents, fishing and anchorage interactions, potential access for cable vessels and cable protection requirements. In order to assess the movement and stability of the shoreline and shallow subtidal areas, and the effects of coastal management plans over the next 50 years, a coastal stability study was also commissioned (*see* ***section 2.12*** of ***Appendix 4.6*** (APP-447)). The study showed that the main uncertainty associated with the coastline in the area is in terms of long term change in coastal processes, alongside change in sea levels related to climate change. It was considered that the available information allowed a good assessment of the area in terms of present day trends of erosion, but that some caution has to be taken in extrapolating these trends into the future. The study was also able to quantify appropriate set back distances from the cliff line depending on where a future landfall location is chosen. This was proposed on a conservative precautionary approach. The Applicant has committed to setting back the landfall transition bays to the potential 100-year erosion prediction line.

No.	Relevant Representation	Applicant's Comments
		The coastal erosion predictions for the landfall area were discussed and presented to East Suffolk Council's (ESC) coastal engineer as part of the Landfall and Coastal Processes Expert Topic Group (ETG) in February 2018. At that time, the Applicant received agreement from ESC that the coastal erosion predictions were robust and that the conservative buffer for setting back the landfall transition bay area of search (***Figure 6.6*** (APP-101)) was appropriate. In May 2018, ESC's coastal engineer provided beach transect plots prepared by the Environment Agency after the late February / early March 2018 prolonged series of onshore winds. They showed updated cliff retreat data over the frontage to the north of Thorpeness Village from 2013 to March 2018. These transects were reviewed against the initial coastal erosion predictions in July 2018. The review concluded that the overall extents of erosion set out in the original report were robust when considering the more recent rates of erosion as there is no evidence that a fundamental change in the broader scale longer term processes exists. ESC's coastal engineer agreed that the data had been considered appropriately and that the conclusions of the coastal erosion predictions were robust. At the landfall the cable ducts would be installed with a minimum setback distance of 85m from the cliff top to ensure the integrity of the cliff is not compromised and to allow for natural coastal erosion. The end of the trenchless technique ducts would be buried under the sea bed beyond the intertidal zone.
005	It is unclear how these impacts will be minimised throughout the construction. The Developer must be required as a minimum to restore the cable route to its state prior to the construction. If not practical, significant mitigation should be agreed.	The Applicant agrees that the land utilised by the onshore cable route should be reinstated to its state prior to construction. As described in ***section 3.4*** of the ***OLEMS*** (APP-584), detailed consultation has been undertaken with the relevant Statutory Nature Conservation Bodies (SNCBs) on landscape mitigation for the onshore cable route. The decision to use underground cable systems for the onshore cables avoids the requirement to construct new overhead lines. The mitigation embedded in this approach would lead to notably reduced impacts on landscape and visual receptors during the construction phase and no impacts during the operational

No.	Relevant Representation	Applicant's Comments
		phase. It also notably reduces the potential for the onshore cable route to contribute to significant cumulative effects. The construction works for the onshore cables would be of a notably smaller scale than those required to install new overhead lines and post construction the onshore cable route would have a negligible impact on landscape and visual receptors as the components for the onshore cables would be buried under ground (***section 29.3.3*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077)). The landscape and ecological mitigation proposals for the onshore elements of the design including the cable route are presented within the ***OLEMS*** which was submitted with the application (see ***section 29.3.3.1*** of ***Chapter 29 Landscape and Visual Impact Assessment***. A final detailed Landscape Management Plan (LMP) will be produced post-consent. The LMP will be subject to approval by the local planning authority under Requirement 14 of the ***Draft DCO*** (APP-023) before any construction for that stage can commence. Examples of proposed mitigation measures for the onshore cable route include: • Reinstatement of land to its original pre-construction state where practicable; • Hedgerow losses will be minimised where practicable. Where the onshore cable route crosses an important hedgerow, the onshore cable route will be reduced to the minimal working width per project (16.1m where possible) thus minimising the total length of hedgerow removed. Where sections of hedgerow are to be felled, replacement planting will be undertaken along the original hedgerow field boundary line, using a bespoke hedgerow planting mix that is appropriate to each location; • Along the length of the onshore cable route, no 24-hour lighting is anticipated to be required except that associated with trenchless technique operations and security lighting at the construction consolidation sites. Task lighting will be utilised in localised areas where required (see ***Code of Construction Practice*** (CoCP)(APP-578).

No.	Relevant Representation	Applicant's Comments
		• Construction work must only take place between 0700 hours and 1900 hours Monday to Friday and 0700 hours and 1300 hours on Saturdays, with no activity on Sundays or bank holidays, except for essential activities as specified under Requirements 23 and 24 of the ***draft DCO*** (APP-023); • ***Section 2.1*** the ***Outline Construction Traffic Management Plan (CTMP)*** (APP-586) provides additional mitigation measures regarding construction traffic and HGV movements; and • The Construction Phase Noise and Vibration Management Plan will set out a procedure for monitoring of the management and mitigation measures. If it is deemed by the Local Planning Authority that during construction monitoring of construction noise is necessary, then the locations for such monitoring will be agreed in advance with the Local Planning Authority (**section 9.2** of the ***CoCP***). The Applicant has committed to reinstating any land within the Order limits which is used temporarily for construction of the onshore works and not ultimately incorporated in permanent works or approved landscaping. This is secured under Requirement 29 of the **d*raft DCO***.
006	The scale of these developments will have a significant impact on our ageing community and their wellbeing. The average age of the community is higher than the rest of the Country and therefore more vulnerable to disruptions. People move here to enjoy their retirement in peaceful surroundings. It is now proposed to position the cable corridor much closer to the residential titles than previously specified. It is unclear how construction in these areas will be managed to minimise the impacts on local residents.	The Applicant agrees that impacts on local residents should be minimised as much as possible. Avoiding residential titles and gardens (where possible) and minimising disruption to landowners, services, road users and residents generally, prioritising voluntary (rather than compulsory powers of) acquisition were the key selection principles for the onshore cable route (***section 4.9.2.1*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052). The identified onshore cable corridor was refined in consultation with Local Planning Authorities and relevant statutory consultees. ***Section 4.9.2.2*** sets out the refinements pertinent to residential properties:

No.	Relevant Representation	Applicant's Comments
		• The settlements of Thorpeness, Sizewell, Leiston, Coldfair Green, Knodishall and Friston, as well as isolated residential properties and titles were removed; • Routeing across the woodland (and identified removal of trees) to the west of Aldeburgh Road as this is the only identified location where the cable route can cross Aldeburgh Road (***section 4.9.1.3.4***). The Applicant has proposed reducing the cable swathe to 16.1m for the Project only and 27.1m for both the Projects at this location, as well as retaining a minimum 5m buffer of woodland at this location to retain as many trees as possible at this location and retaining a woodland buffer to residential properties to the south of Fitches Lane; Non-statutory pre-application consultation has been undertaken with landowners and/or their land agents since September 2017 (for details see ***Consultation Report*** (APP-029)). Comments and suggestions put forward by landowners are described in ***section 4.9.3.1,*** and these have helped to refine the final project. The Applicant disagrees that the positioning of the onshore cable corridor has moved closer to residential titles than previously specified. The onshore cable corridor routeing provided within the Preliminary Environmental Information Report (PEIR) (Figure 6.6) was an indicative cable corridor option and the Applicant stated at PEIR that the onshore cable corridor could be routed to the edges of the Proposed Onshore Development Area, where necessary. Following Section 42 feedback and further constraints mapping and engineering feasibility review of the onshore cable corridor, the Applicant has routed the onshore cable corridor slightly further west (as per ***Figure 6.6e*** (APP-101)) to avoid potential interaction with substantial sub-surface archaeological remains identified to date, as described in ***section 4.9.2*** and ***section 4.9.3.3*** in ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052). The onshore cable corridor has also been widened at certain locations to allow additional flexibility during detailed design and construction to avoid impacting on buried archaeology identified during the geophysical surveys. This approach is directly in-line with

No.	Relevant Representation	Applicant's Comments
		the wider project aims of minimising the environment and historic environment impacts of the project; and represents a good practice example of detailed and methodical embedded mitigation. The final CoCP will set out the management measures (for all issues relating to dust, noise, lighting and pollution) which the Project will require its contractors to adopt and implement for any onshore construction works. The ***Outline CoCP*** (APP-578) has been compiled with the objective of demonstrating environmental management controls in one cohesive document for the onshore works and formalises commitments made to the Local Planning Authority and statutory consultees outlined in the ES.
007	This part of the coast has a very high number of visitors, making an essential contribution to maintaining a viable local economy. Disruption to footpaths, general access to the area, air quality, light, noise and dust pollution will significantly impact the local community and the attractiveness of the area as a holiday destination. It is unclear how the impact on the local economy will be suitably mitigated.	***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078) provides an assessment of the tourism related effects of the projects. In addition, ***Appendix 30.2*** (APP-571) provides further information on previous studies done on similar types of project. Public Rights of Way Public Rights of Way (PRoW) are assessed in ***section 30.6.1.4.2.1*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP078)***.*** There are 26 PRoW within the whole of the onshore development area for which management measures are required, which will allow them to be used throughout construction and two PRoW at the substation site which will require permanent diversion. Temporary diversions will involve a short diversion around construction works, allowing construction works to progress in the area of the original PRoW. Once this construction works (or a phase of construction works) are complete, the PRoW would be reinstated along its original route. Depending on the nature and timing of the construction works this the temporary diversion arrangement may be implemented a number of times during construction. The ***Outline Public Rights of Way Strategy*** (APP-581) outlines the management principles to be adopted in ensuring that PRoW are managed in a safe and appropriate manner during construction and operation. Precise details

No.	Relevant Representation	Applicant's Comments
		for the management of each PRoW, including the specification of any PRoW temporary diversions, during construction works will be agreed with the Local Planning Authority (following consultation with the Local Highway Authority) through approval of the final PRoW Strategy, prior to commencement of any stage of the authorised development that would affect a PRoW specified in Schedule 3 or 4 of the ***draft DCO*** (APP-023). For PRoW which will be permanently stopped up, as set out in Article 10 of the ***draft DCO,*** the existing PRoW cannot be extinguished until the Local Highway Authority confirms that the alternative PRoW has been created to the standard defined in the final PRoW Strategy. For temporary stopping up of PRoW, Article 11 of the ***draft DCO*** requires the alternative right of way to be in place to the reasonable satisfaction of the Local Highway Authority before the existing PRoW can be temporarily stopped up. <u>Air Quality, Noise and Perception</u> Effects on tourism and recreation may potentially arise from two pathways: The first pathway is from direct impacts upon tourism and recreation assets during construction of the Project (i.e. physical disturbance – air quality, noise etc in ***Table 30.67, Table 30.68 and Table 30.69, Chapter 30 Tourism, Recreation and Socio-Economics***). The assessment also takes account of construction effects from transport and these have been fully assessed in ***Chapter 26 - Traffic and Transport*** (APP-074), ***Section 26.6. 1.11 Impact 4: Driver Delay (Capacity)*** and section ***26.6.1.12 Impact 5: Driver Delay (Highway Geometry)***. No significant adverse effects are predicted after mitigation described in the inter-related chapters (i.e. ***Chapter 19 Air Quality*** (APP-067), ***Chapter 20 Water Resources and Flood Risk*** (APP-068), ***Chapter 25 Noise and Vibration*** (APP-073) ***Chapter 26 Traffic and Transport*** (APP-074)). The second pathway is from the perception of large-scale developments as being an adverse impact on the area as a tourist destination. Whether there is a

No.	Relevant Representation	Applicant's Comments
		perception of development by visitors or potential visitors (and therefore an actual pathway for impact) will depend on two factors. Firstly, a development would need to be in the public eye and known to potential visitors. Although the Project is a Nationally Significant Infrastructure Project it is not an iconic project (e.g. Crossrail, Sizewell C New Nuclear Power Station, Heathrow Airport), and unlikely to be widely known or understood as a distinct project by the general public or visitors. Indeed, this point is supported by the DMO Report (*The Energy Coast Implications, impact & opportunities for tourism on the Suffolk Coast*) which states that *"Half of regional market* [visitors who responded to the DMO survey living within 3 hours of the Suffolk Coast] (*51%) unaware of EDF plans for Sizewell C whilst two-thirds (65%) unaware about SPR's plans*" (page 26). Secondly visitors already in the area would need come into contact with construction activity or traffic effects and link that to the Project. This would affect only visitors to the proximity of the onshore study area and as noted above all traffic impacts that would affect visitors (e.g. driver delay) were assessed as non-significant in EIA terms Cumulative tourism and recreation disturbance impacts will come from the same two pathways; i.e. direct impacts upon tourism and recreation assets from construction and secondly from the perception of multiple large-scale developments as being an adverse impact on the area as a tourist destination. With regard to the direct impacts, all projects (i.e. East Anglia TWO, East Anglia ONE North and Sizewell C) will need to mitigate their impacts to acceptable levels or provide similar mitigations for assets such as PRoWs. Proposed mitigation for the Project can be found in the following documents: ***Outline Public Rights of Way Strategy*** (APP-581), ***Outline Code of Construction Practice*** (APP-578) and the ***Outline Landscape and Ecological Management Strategy*** (APP-584). These documents provide the basis for the mitigation which will be set out in final documents which must be approved by the Local Planning Authority before onshore works can commence.

No.	Relevant Representation	Applicant's Comments
		Both of the Projects have this mitigation and Sizewell C would need to have similar requirements. It is therefore assumed that, with the exception of traffic impacts, these direct impacts would not be significant cumulatively as each project would mitigate their own impacts and unless projects had overlapping footprints there would be limited potential for cumulative impacts upon the same receptor. Given mitigation commitments it is considered that these impacts would be of negligible significance (see ***Table 30.71*** and ***Table 30.84***). Subsequent to agreeing the cumulative assessment approach with the Traffic and Transport ETG, EDF Energy embarked upon their Stage 4 consultation exercise. The Stage 4 consultation did not contain sufficient information to facilitate a quantitative assessment. Recognising that Stage 3 information released by EDF Energy was out of date, a quantitative cumulative assessment could not be provided for the application as it would have been based upon out of date and incorrect information. The Applicant has committed to carrying out full quantitative CIAs for these topics. The required information to inform this has now been submitted within the Sizewell C New Nuclear Power Station Application. The updated CIA (as appropriate) will be submitted during the Examination of the Project. Following feedback received during Phase 4 Consultation, the Applicant is mindful of the potential tourism impacts and is no longer proposing to use Thorpeness Road to access the landfall area during construction, removing all HGV traffic from the Thorpeness Road. All vehicle access to the Landfall during construction will be via Sizewell Gap, a designated 'zone distributor route' identified as suitable for HGVs under Suffolk County Council's Lorry Route Network. It is not considered that the Applicants projects will have significant impacts upon visitor perception during construction as they are not iconic projects likely to be in the public mind and direct impacts which could affect visitors already present in the area will be mitigated to not significant levels. It is accepted that Sizewell C New Nuclear Power Station does have a high public profile and indeed is linked

No.	Relevant Representation	Applicant's Comments
		by name with the area. Reports from EDF Energy Hardisty Jones Associates (2018) suggest that there could be potential impacts upon tourism and recreation from Sizewell C New Nuclear Power Station (***section 30.7.2.1.4*** of ***Chapter 30 Tourism. Recreation and Socio-Economics***).
008	It is unclear how the cumulative impact of all proposed energy projects will be managed, particularly the damage to road surfaces, traffic flow on narrow roads and congestion at busy junctions.	***Chapter 26 Traffic and Transport*** (APP-074) is supported by an ***Outline Construction Traffic Management Plan (OCTMP)*** (APP-586) and an ***Outline Travel Plan (OTP)*** (APP-588). These documents are secured under the requirements of the draft DCO. These documents include embedded mitigation measures in order to limit driver delay. ***Section 26.7.2.1*** of ***Chapter 26 Traffic and Transport*** covers cumulative impacts with Sizewell C construction. The worst-case cumulative scenario for the projects is the simultaneous construction of the Projects with Sizewell C. The project screening exercise followed The Planning Inspectorate Advice Note 17: Cumulative Effects Assessment and the list of projects to be included was agreed with statutory nature conservation bodies through Expert Topic Group (ETG) meetings and consultation on the Preliminary Environmental Information Report. Subsequent to agreeing the cumulative assessment approach the Traffic and Transport ETG, EDF Energy embarked upon their Stage 4 consultation exercise. The Stage 4 consultation did not contain sufficient information to facilitate a quantitative assessment. Recognising that Stage 3 information released by EDF Energy was out of date, a quantitative cumulative assessment could not be provided for the application as it would have been based upon out of date and incorrect information. The Applicants therefore agreed with the Traffic and Transport ETG to update the cumulative assessment once final details of strategy and vehicle numbers are available from EDF Energy during the examination phase of the Project.

No.	Relevant Representation	Applicant's Comments
009	Several areas of the Parish are already impacted by significant flooding. It is unclear how these proposals will impact the flood management strategies for the area.	The Applicant notes the concerns of the local community in relation to flooding. The Local Flood Risk Management Strategy was taken into account within ***Chapter 20 Water Resources and Flood Risk*** (APP-068) as noted in ***section 20.4.1.3.3.*** Embedded mitigation in relation to surface water runoff and flood risk is presented within ***section 20.3.3*** and ***Table 20.3*** of ***Chapter 20 Water Resources and Flood Risk***. Issues pertinent to construction phase drainage, including consideration of surface water runoff, will be managed through the development and implementation of a Surface Water and Drainage Management Plan to be submitted post-consent as part of the Code of Construction Practice, as secured under the requirements of the ***draft DCO*** (APP-023). This must be approved by the relevant planning authority before works can commence. The Surface Water and Drainage Management Plan will secure measures which limit discharges to a controlled rate (equivalent to the greenfield runoff rate) and ensure that any redirected overland flow routes do not cause an increase in off-site flood risk. Operation phase drainage measures will be secured through the production and implementation of a Landscape Management Plan (LMP)to be prepared post-consent in line with the Requirement 14 set out in the ***draft DCO***. The final LMP will be based upon the ***Outline Landscape and Ecological Management Strategy*** (APP-584). ***Section 20.6.2.1.2*** of ***Chapter 20 Water Resources and Flood Risk*** sets out additional mitigation measures to be implemented for the operation phase that will mitigate impacts in relation to surface water runoff and flood risk. Discussions regarding these matters are ongoing between the Applicant and the local planning authorities through the statement of common ground process.

3.3 Benhall and Sternfield Parish Council (RR-009)

Table 7 Applicant's Comments on Benhall and Sternfield Parish Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	The proposals do not demonstrate that the least disruptive technology is being used with respect to the on-shore installations.	The Applicant notes the Parish Council's concerns with respect to the onshore elements of the Project. The Applicant is responding directly to Relevant Representations from other parish councils along the onshore cable route. The decision to use underground cable systems for the onshore cables avoids the requirement to construct new overhead lines. The mitigation embedded in this approach would lead to notably reduced impacts on landscape and visual receptors during the construction phase and no impacts during the operational phase. It also notably reduces the potential for the onshore cable route to contribute to significant cumulative effects. The construction works for the onshore cables would be of a notably smaller scale than those required to install new overhead lines and post construction the onshore cable route would have a negligible impact on landscape and visual receptors as the components for the onshore cables would be buried under ground (***section 29.3.3*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077)). The maximum sizes of the key onshore substation parameters are provided in ***Table 6.27*** of ***Chapter 6 Project Description*** (APP-054). The size of the onshore infrastructure has been determined through the Rochdale Envelope approach (see ***Section 3.5 of Chapter 3 Policy and Legislative Context*** (APP-051) which allows a series of realistic design assumptions from which worst case parameters are drawn for the proposed projects. The project design envelope has a reasoned maximum extent for a number of key parameters. The final design would lie within the maximum extent of the consent sought. The project design envelope is used to establish the maximum extent to which the Project could impact on the environment. The detailed design of the Project could then vary within this 'envelope' without rendering the assessment inadequate. The physical footprint of the onshore substation is determined by:

No.	Relevant Representation	Applicant's Comments
		• Feasible technology (e.g. AC or DC transmission); • The size of infrastructure (e.g. the size of cables, size of building or equipment) which is determined by technology; • The number of each element required (e.g. cables, transformers, etc.); • Minimum spacings required for safe and efficient construction and operation (e.g. cable spacing); • Required stand-offs or crossing requirements (e.g. to other infrastructure or watercourses); • Other constraints (e.g. hard constraints or required buffers from human or environmental constraints), topography and natural features; • Construction methodology (e.g. open trench or HDD) and construction sequencing which is dependent upon constraints; • Access and storage (including spoil); • Drainage; and • Welfare and security. The final onshore substation design would be developed post-consent. ***Section 3*** of the ***Outline Onshore Substation Design Principles Statement*** (APP-585) summarises the outline design principles that the Applicant will use as the foundation for developing the final Onshore Substation Design Principles post-consent, as part of the discharging of requirements of the ***draft DCO*** (APP-023). These include: • Continued engagement with Parish Councils, local residents and relevant authorities (Suffolk County Council and East Suffolk Council) on design and landscape proposals. • The landscape and building design proposals be subject to design review, in consultation with the relevant local authorities.

No.	Relevant Representation	Applicant's Comments
		• Consideration of 'Good Design' in line with the requirements of Overarching National Policy Statement for Energy (NPS-EN-1). • Appropriate building design and materials will be actively sought as part of the procurement process. The ***draft DCO*** (APP-023) states that no stage of the onshore substation works may commence until details of the layout, scale and external appearance of the onshore substation have been submitted to and approved by the relevant planning authority.
002	It is important to ensure that the routing of HGVs is maintained on approved lorry routes.'	The Applicant notes the Parish Council's concerns regarding the routing of HGVs. The commitments relating to HGV routing are secured in the ***Outline Construction Traffic Management Plan*** (APP-586). HGV Routeing monitoring measures are within ***section 4.1.2***. Requirement 28 of the ***draft DCO*** (APP-023) requires the submission and approval of a Construction Traffic Management Plan (CTMP) which must be in accordance with the ***Outline Construction Traffic Management Plan*** before any stage of onshore works can commence. The appointed contractor will implement a system to help the public distinguish HGV construction vehicles associated with the Project from other traffic on the highway network. Each HGV will be required to display a unique identifier, provided by the CTMP within the window of the cab (a recognisable logo) that will allow members of the public to report any concerns such as driver behaviour or the use of unapproved routes via a publicised telephone contact number. A Transport Co-ordinator will manage and have oversight of traffic movements throughout construction. There will also be a Community Liaison Officer (CLO) in place to answer any queries. Contact details will be made available in a regular newsletter that will be circulated to all local Parish and Town Councils and stored at community hubs, such as libraries, as well as on the website for reference.

No.	Relevant Representation	Applicant's Comments
		Signs will be erected at all construction accesses with the relevant contact number clearly displayed for public enquiries. The appointed contractor will also ensure that their HGV fleet, where appropriate, are fitted with a GPS tracking system. The GPS tracking together with delivery records will serve to augment the unique identifier to allow the Transport Coordinator to respond to any complaints and provide a complete evidence base.

3.4 Campsea Ashe Parish Council (RR-010)

Table 8 Applicant's Comments on Campsea Ashe Parish Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	Campsea Ashe Parish Council support the representations made by SASES and Friston Parish Council. The cumulative impact of up to seven energy projects in East Suffolk will have a detrimental human impact particularly through noise and light pollution, blight and community severance in many villages as a result of the traffic impact.	The Applicant notes that Campsea Ashe Parish Council support representations of SASES and Friston Parish Council with respect to the onshore elements of the Project. The Applicant is responding directly to Relevant Representations from other parish councils along the onshore cable route. Cumulative Impact Assessment The Applicant considers that the assessment of cumulative impacts of existing and potential future projects is robust. A cumulative impact assessment (CIA) has been carried out for each of the considered receptor topics in ***Chapters 7 to 30*** (APP 055-078) of the Environmental Statement. The approach used for the CIA follows Planning Inspectorate Advice Note 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17 as summarised in the following: • **Tier 1** – Projects under construction, permitted or submitted applications; • **Tier 2** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and • **Tier 3** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent. Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to

No.	Relevant Representation	Applicant's Comments
		insufficient information available on which to base an assessment, in line with Advice Note 17. In some technical chapters, a more refined tiering system based on the guidance issued by JNCC and Natural England in September 2013[17] is employed. This approach was acknowledged within the Planning Inspectorate's Scoping Opinion (APP-033). The CIA takes into consideration other relevant windfarm projects (including concurrent and sequential construction of each individual East Anglia TWO and East Anglia ONE North project) and industrial activities. Each CIA describes a screening exercise which has been undertaken to screen in potential inter-related impacts and then potential projects to the assessment. Sizewell C New Nuclear Power Station was screened into and assessed in a number of the topic CIAs however due to a lack of available data at the time of writing, some of these had to be conducted qualitatively, when a quantitative assessment would have been desirable, for example for the traffic and transport and air quality impact assessments. The Applicant has committed to carrying out full quantitative CIAs for these topics. The required information to inform this has now been submitted within the Sizewell C New Nuclear Power Station Application. The updated CIA (as appropriate) will be submitted during the Examination of the Project. <u>Traffic Impacts</u> With regards to traffic (see ***Chapter 26 Traffic and Transport*** (APP-074), cumulative impacts between both Projects will not result in any impacts of greater significance than those considered in the project alone assessments because the combined construction activity would not increase the magnitude of effect. However, the worst case scenario with regards to traffic would be for simultaneous construction as this would result in the highest peak of traffic

[17] JNCC and Natural England (2013). Suggested Tiers for Cumulative Impact Assessment.

No.	Relevant Representation	Applicant's Comments
		numbers (peak numbers are provided in ***Appendix 26.2*** (APP-528)). The same embedded and additional mitigation measures will be applied to both Projects. Property Prices The impact of the Project on house prices is not a material consideration. There are many reasons why house prices vary, and, in any event, policy does not seek to prohibit activities which may have such effects. National Policy Statements (NPS) do however offer specific policy support for the assessment of effects that a project may have on residential receptors. The Environmental Statement has provided appropriate impact assessment on residential receptors in line with the overarching NPS in relation to Energy (EN-1), Renewable Energy Infrastructure (EN-3) and Electricity Networks Infrastructure (EN-5). The potential impact on residential receptors has been considered throughout the development of the Project and this is reflected in the site selection process reported in ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052). In addition, the potential effects on residential receptors and residents has been further considered and evaluated in other topic specific chapters, including ***Chapter 19 Air Quality*** (APP-067), ***Chapter 25 Noise and Vibration*** (APP-073), ***Chapter 74 Traffic and Transport*** (APP-074), ***Chapter 27 Human Health*** (APP-075) and ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077). The potential impact on non-residential land uses has been evaluated through ***Chapter 21 Land Use*** (APP-069) and ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078). ***Appendix 21.1*** (APP-499) details the relevant consultation undertaken. It is noted that, in terms of subsection 87(3) of the Planning Act 2008, representations that relate to compensation for compulsory acquisition of land or of an interest in or right over land are matters which the ExA may disregard.
002	There is no doubt that Friston and surrounds will experience the most negative impact of noise and light	The Applicant acknolwedges the changes introduced by the Project to the local area.

No.	Relevant Representation	Applicant's Comments
	pollution with discernible increases in both impacting on the quality of life for residents.	Noise and Vibration ***Chapter 25 Noise and Vibration*** (APP-073) provides an assessment of noise and vibration impacts of the projects. A summary of the findings is presented in ***Table 25.43***. The assessment demonstrates that construction phase impacts (impact 1) from the Project within the noise and vibration study area have a maximum residual impact of negligible adverse significance. The assessment demonstrates that construction phase road traffic noise emissions (impact 2) from the Project have a maximum residual impact of minor adverse significance. Vibration disturbance during construction (impact 3) within the noise and vibration study area from the Project will be of minor adverse significance. The assessment demonstrates that, post mitigation, all operational impacts (operational noise from the onshore substation) have a maximum residual impact of negligible significance. There will therefore be no impacts resulting from the Projects that are considered to be significant in EIA terms (i.e. moderate or major adverse). Lighting Lighting requirements are described in ***Chapter 6 Project Description*** (APP-054). An Operational Artificial Light Emissions Management Plan will be developed for the final design for the permanent infrastructure and will be submitted to the local planning authority for approval in accordance with the requirements of the draft Development Consent Order (APP-023). The plan will detail any sensitive receptors and describe the measures to minimise lighting which will be implemented, including lighting requirements, positioning and hours of operation, alongside any monitoring and reporting which might be required. The Operational Artificial Light Emissions Management Plan will require

No.	Relevant Representation	Applicant's Comments
		agreement by the relevant local planning authority prior to the commencement of the onshore works. Construction activities would normally be conducted during Monday to Friday working hours of 7am to 7pm and Saturday working hours of 7am to 1pm. Working hours are not proposed for Sundays or Bank Holidays. Exceptions to these working hours for the works are described in ***section 6.9 Onshore Programme*** of ***Chapter 6 Project Description*** (APP-054), these include: • Fitting out works associated with the onshore substation; • Delivery to the transmission work of abnormal loads that may cause congestion on the local road network; • The testing or commissioning of any electrical plant installed as part of the onshore infrastructure; and • Activity necessary in the instance of an emergency where there is a risk to persons, delivery of electricity or property. Substation lighting requirements are covered in ***section 6.7.8.14 Lighting of Chapter 6 Project Description*** (APP-054). As a worst case scenario, it has been assumed that some periods of 24 hour construction will be required, for which task related flood lighting will be necessary. Substation lighting requirements are covered in ***section 6.7.8.14*** of ***Chapter 6 Project Description*** (APP-054). Operational lighting requirements at the onshore substation and National Grid substation would entail: • Security lighting around perimeter fence of compound, to allow CCTV coverage, possibly motion sensitive; • Car park lighting – as per standard car park lighting, possibly motion sensitive; and • Repair / maintenance – task related flood lighting will be necessary.

No.	Relevant Representation	Applicant's Comments
		No additional lighting is proposed along Grove Road or along the additional access roads within the substation location. An artificial light emissions management plan is required to be included within the Code of Construction Practice (CoCP), based on the ***Outline CoCP*** (APP-578), which must be submitted to the local planning authority for approval prior to commencement of the onshore works.
003	The detrimental traffic impact however will have a wider compass on the villages and countryside of East Suffolk. This will be particularly severe as local business parks, such as Bentwaters and Base Parks, gain sub-contracting business resulting in traffic being diverted from main routes. Local roads will also become 'rat runs' as local traffic seeks alternative routes to avoid increased heavy traffic on major roads. In addition to community severance this will result in reduced road safety on B and unclassified roads, often with hedgerows and tight bends, not designed to cope with the volume of traffic. This is exacerbated as many villages do not have public transport readily available to visit local amenities.	***Chapter 26 - Traffic and Transport Section 26.6. 1.11 Impact 4: Driver Delay (Capacity)*** and section ***26.6.1.12 Impact 5: Driver Delay (Highway Geometry)*** assess impacts relating to congestion. Embedded mitigation measures are identified to limit driver delay impacts to not significant as follows: • A cable corridor haul route that removes HGV movements from the public highway; • A booking system to enable a daily profile of deliveries to be maintained and ensure that the required deliveries are regularly forecast and planned; and • Worker generated traffic reduced through car sharing. Embedded mitigation is secured by the ***Outline Construction Traffic Management Plan*** (APP-586) and the ***Outline Travel Plan*** (APP-588). Therefore, construction traffic should not create the conditions for 'rat-running'. As detailed within requirement 28 of the ***draft DCO*** (APP-023), a Construction Traffic Management Plan (CTMP) is required to be submitted to the local planning authority for approval in consultation with the relevant highway authority. This must be based on the ***outline CTMP*** (APP-586).and under the requirements of the ***draft DCO*** it must be implemented as approved. Road safety is considered in ***Chapter 26 - Traffic and Transport Section 26.5.4 (baseline)*** and assessed in ***section 26.6.1.10.*** Collision clusters have been identified that could potentially be exacerbated by the Projects construction traffic demand. Mitigation has been identified to reduce impacts to not significant.

No.	Relevant Representation	Applicant's Comments
004	The projects also will have a detrimental effect on landscape, ecology and environment that cannot be mitigated in the future, resulting in a negative impact on tourism. Much of the local economy, including villages such as Campsea Ashe, is dependent on incomes from tourism. With no long term jobs created by the projects there will be an overall adverse socio-economic impact of the proposed development in East Suffolk	The Applicant notes the Parish Council's concerns regarding potential impacts on landscape, ecology, tourisms and the economy and addresses these points in tern below. Landscape - substation The selected onshore substation location avoids all international, national, county and local landscape designations. The landscape at the substation site is not designated for any special qualities of peace or tranquillity. It does not affect any ancient woodland and proposed mitigation measures ensure that any hedgerow loss which would occur is compensated for in new planting around the onshore substation. The site benefits from existing natural screening provided by Grove Wood and Laurel Covert, as well as other smaller tree blocks and hedgerows surrounding the site. These landscape features provide screening principally from the east and create a wooded backdrop in views from other directions, below which the height of the onshore substation and National Grid substation will be contained and in so doing, contribute to the mitigation of landscape and visual effects (***section 29.3.3*** of ***Chapter 29 Landscape Visual Impact Assessment*** (APP-077)). The ***OLEMS*** (APP-584) summarises the general landscape and ecology principles and mitigation measures to be adopted during construction and operation of the onshore infrastructure associated with the proposed projects and will provide the framework for the preparation of the final, more detailed Landscape Management Plan and Ecological Management Plan which will be developed post-consent in agreement with the relevant local planning authority. Landscape – onshore cable route The selection of the onshore cable route has followed a number of key design principles (***Table 29.3*** of ***Chapter 29 Landscape and Visual Impact Assessment (LVIA)*** (APP-077)), where practical, with the following being relevant to LVIA:

No.	Relevant Representation	Applicant's Comments
		• Wherever possible to locate the onshore cable route through open agricultural land; • To avoid landscape designations including Registered Parks and Gardens (RPGs); • To avoid areas of woodland and trees as far as possible; • To minimise the number of hedgerow crossings and utilise existing gaps in field boundaries if possible; and • To avoid proximity to residential dwellings and settlements. Landscape and visual mitigation is embedded in the selection of a route which minimises effects on nature designations (SSSI/SPA/SAC/Ramsar/NNR), minimises the effects on the AONB and physical effects on hedgerows and trees. <u>Onshore Ecology</u> As stated in sections ***22.6*** and ***22.10*** of ***Chapter 22 Onshore Ecology*** (APP-070), the potential impacts to habitats have been fully assessed by way of desk-based assessments and field surveys. The chapter concludes negligible to minor impacts to habitats through construction and operation of the Project. The following surveys, figures and reports were undertaken that provide a robust assessment of local habitats and the impacts resultant from the Project: • ***Chapter 22 Onshore Ecology*** (APP-070) • ***Appendix 22.3 - Extended Phase 1 Habitat Survey (Part 1 of 2)*** (APP-503), • ***Appendix 22.3 - Extended Phase 1 Habitat Survey (Part 2 of 2)*** (APP-504), • ***Figure 22.4a-f - Extended Phase 1 Habitat Survey Results*** (APP-277) Species and habitats for which potential impacts during construction, operation and decommissioning were assessed include:

No.	Relevant Representation	Applicant's Comments
		• Arable habitat; • Grassland habitat; • Woodland and trees (mitigation is discussed in ***section 22.6.1.4.2***); • Hedgerows (mitigation is discussed in ***section 22.6.1.5.1***); • Coastal habitats; • Watercourses and Ponds (mitigation is discussed in ***section 22.6.1.7.1***); • Badgers (mitigation is discussed in ***section 22.6.1.8.4***); • Bats (mitigation is discussed in ***section 22.6.1.9.2***); • Great Crested Newts (mitigation is discussed in ***section 22.6.1.10.2***); • Reptiles (mitigation is discussed in ***section 22.6.1.11.2***); and • Invasive non-native species (mitigation is discussed in ***section 22.6.1.12.2***). The chapter concludes minor impacts to most species through construction and operation of the Project following the mitigation measures as detailed in the chapter, which will be secured through the Ecological Management Plan. Significant residual impacts will remain after mitigation for bats (during the construction phase) due to potential loss of roosting and foraging habitat. Replacement habitat will be managed and maintained to ensure the bat population will persist and monitoring of the population will be undertaken to assess the success of any mitigation where possible, as detailed in the ***OLEMS*** (APP-584).This significant impact to the bat population will be short term and temporary. This temporary magnitude of effect will further reduce (to negligible) over time as hedgerows fully recover. As such, this represents a temporary residual impact of moderate adverse significance, reducing to minor adverse significance within 3-7 years once hedgerows have fully recovered.

No.	Relevant Representation	Applicant's Comments
		Pre-construction ecological surveys will be undertaken to ensure appropriate ecological mitigation (if required) is in place prior to commencement of the relevant works secured through the production of an Ecological Management Plan to discharge requirements of the DCO. This will be in accordance with the ***OLEMS*** (APP-584). The OLEMS outlines the requirement for landscape and ecological (including ornithological) mitigation measures. The Ecological Management Plan will be submitted for approval by the local planning authority in consultation with the relevant Statutory Nature Conservation Body prior to commencement of works. This must reflect the survey results and mitigation measures included in the ES. The Applicant has identified areas to provide species mitigation should updated surveys reveal the need for specific measures. <u>Tourism</u> ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078) provides an assessment of the tourism related effects of the projects. In addition, ***Appendix 30.2 Literature Review - Windfarm Impact on the Tourism Industry*** (APP-571) provides further information on previous studies done on similar types of project. Effects on tourism and recreation may potentially arise from two pathways: The first pathway is from direct impacts upon tourism and recreation assets during construction of the Project (i.e. physical disturbance – air quality, noise etc in ***Table 30.67, Table 30.68 and Table 30.69, Chapter 30 Tourism, Recreation and Socio-Economics***). The assessment also takes account of construction effects from transport and these have been fully assessed in ***Chapter 26 - Traffic and Transport*** (APP-074), ***Section 26.6. 1.11 Impact 4: Driver Delay (Capacity)*** and section ***26.6.1.12 Impact 5: Driver Delay (Highway Geometry)***. No significant adverse effects are predicted after mitigation described in the inter-related chapters (i.e. ***Chapter 19 Air Quality*** (APP-067), ***Chapter 20 Water Resources and Flood Risk*** (APP-068), ***Chapter***

No.	Relevant Representation	Applicant's Comments
		25 Noise and Vibration (APP-073) ***Chapter 26 Traffic and Transport*** (APP-074)). The second pathway is from the perception of large scale developments as being an adverse impact on the area as a tourist destination. Whether there is a perception of development by visitors or potential visitors (and therefore an actual pathway for impact) will depend on two things. Firstly, a development would need to be in the public eye and known to potential visitors. Although the proposed project is a Nationally Significant Infrastructure Project it is not an iconic project (e.g. Crossrail, Sizewell C New Nuclear Power Station, Heathrow Airport), and unlikely to be widely known or understood as a distinct project by the general public or visitors. Indeed, this point is supported by the DMO Report (*The Energy Coast Implications, impact & opportunities for tourism on the Suffolk Coast*) which states that *"Half of regional market* [visitors who responded to the DMO survey living within 3 hours of the Suffolk Coast] (*51%) unaware of EDF plans for Sizewell C whilst two-thirds (65%) unaware about SPR's plans*" (page 26). Secondly visitors already in the area would need come into contact with construction activity or traffic effects and link that to the Project. This would affect only visitors to the proximity of the onshore study area and as noted above all traffic impacts that would affect visitors (e.g. driver delay) were assessed as non-significant in EIA terms. It is accepted that Sizewell C New Nuclear Power Station does have a high public profile and indeed is linked by name with the area. Reports from EDF Energy Hardisty Jones Associates (2018) suggest that there could be potential impacts upon tourism and recreation from Sizewell C New Nuclear Power Station. Cumulative tourism and recreation disturbance impacts will come from the same two pathways; i.e. direct impacts upon tourism and recreation assets from construction and secondly from the perception of multiple large scale developments as being an adverse impact on the area as a tourist destination.

No.	Relevant Representation	Applicant's Comments
		With regard to the direct impacts, all projects (i.e. East Anglia TWO, East Anglia ONE North and Sizewell C) will need to mitigate their impacts to acceptable levels or provide similar mitigations for assets such as PRoWs. Proposed mitigation for the Project can be found in the following documents: ***Outline Public Rights of Way Strategy*** (APP-581), ***Outline Code of Construction Practice*** (APP-578) and the ***Outline Landscape and Ecological Management Strategy*** (APP-584). These documents provide the basis for the mitigation which will be set out in final documents which must be approved by the Local Planning Authority before onshore works can commence. Both of the Projects have this mitigation and Sizewell C would need to have similar requirements. It is therefore assumed that, with the exception of traffic impacts, these direct impacts would not be significant cumulatively as each project would mitigate their own impacts and unless projects had overlapping footprints there would be limited potential for cumulative impacts upon the same receptor. Given mitigation commitments it is considered that these impacts would be of negligible significance (see ***Table 30.71*** and ***Table 30.84***). <u>Employment</u> ***Section 30.6.1.1 Impact 1a: Onshore Construction Employment*** – covers onshore construction related employment. Peak staff on site would be 249, with FTEs an average of 167. It is estimated that 36% of the construction workforce could be local (i.e. within a 60-minute drive). ***Section 30.6.2.1 Impact 1: Long Term Employment***–covers operational employment. It is estimated that regional offshore direct employment would be between 100 –300 FTE personnel. Onshore requirements would be limited to maintenance only. Offshore operational assumptions are that each project would be run separately, hence operational employment is doubled ***(Table 30.82).***

3.5 Friston Parish Council (RR-011)

Table 9 Applicant's Comments on Friston Parish Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	The proposed developments (EA1N and EA2) will have a significant adverse impact on Friston and the surrounding area from the onshore elements of the schemes which involve the construction of a substantial and visually intrusive substation complex together with a new National Grid connection hub, and a five mile cable route partially through an AONB. The substation complex and National Grid hub would cover 12 hectares (30 acres) and be up to 18m (60 ft) high, in a tranquil rural area, next to the historic village of Friston.	The Applicant notes the comments from Friston Parish Council with respect to the onshore elements of the Project and acknowledges that the introduction of the Project is a change to Friston and the surrounding area. The Applicant is committed to working with Friston Parish Council and other stakeholders to mitigate any significant impacts as much as possible. National Grid provided a grid connection for the Project in the vicinity of Sizewell and Leiston, Suffolk. ***Section 4.7.5*** of ***Chapter 4 Site Selection and Selection of Alternatives*** (APP-052) describes the Connection and Infrastructure Options Note (CION) process and the work undertaken by the Applicant with National Grid to establish a grid connection location. The CION process considers the total life cost of the connection assessing both the capital and projected operational costs to the onshore network (over a project's lifetime) to determine the most economic and efficient design option.This is a principle driver for the location of landfall and substations and the subsequent onshore cable corridor route. <u>Onshore Cable Route</u> The location of the onshore cable corridor is driven by the location of the onshore substations (as detailed below) and the location of the landfall (***section 4.9.1*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052)). The selection of the onshore cable route has followed a number of key design principles (***Table 29.3*** of ***Chapter 29 Landscape and Visual Impact Assessment (LVIA)*** (APP-077)), where practical, with the following being relevant to LVIA: • Wherever possible to locate the onshore cable route through open agricultural land; • To avoid landscape designations including Registered Parks and Gardens (RPGs); • To avoid areas of woodland and trees as far as possible; • To minimise the number of hedgerow crossings and utilise existing gaps in field boundaries if possible; and

No.	Relevant Representation	Applicant's Comments
		• To avoid proximity to residential dwellings and settlements. Landscape and visual mitigation is embedded in the selection of a route which minimises effects on nature designations (Sites of Special Scientific Interest (SSSI) / Special Protection Areas (SPA) / Special Areas of Conservation (SAC) / Ramsar / National Nature Reserves (NNR)), minimises the effects on the AONB and physical effects on hedgerows and trees. <u>Onshore Substations</u> From the outset, careful siting of the onshore substations and National Grid substation has set out to avoid key areas of sensitivity wherever possible. Embedded mitigation has included: • Careful siting of the onshore substations and National Grid substation to the west and south of existing woodland blocks to gain maximum benefit from existing natural screening; • Careful siting of the onshore substations and National Grid substation in close proximity to the existing overhead lines to reduce additional cabling requirements and to minimise proliferation of infrastructure; and • Siting the onshore substations and National Grid substation in an area of low flood risk (Flood Zone 1) as shown in ***Figure 20.2*** (APP-266). A Red / Amber / Green (RAG) assessment (***Appendix 4.2)*** (APP-443)) was undertaken to score potenital substation locations. These were scored against criteria agreed with statutory consultees. These included archaeology / heritage, ecology, landscape, hydrology and hydrogeology, engineering, community, landscape and visual, property and planning. The RAG assessment did not identify the chosen onshore substation site, rather it was a tool that allowed a number of sites to be compared and the most acceptable sites identified at the time to progress to further assessment stages. The culmination of the various work streams as described in ***section 4.9.1.3*** enabled the Applicant to decide that the substation zone northeast of Friston (Zone 7) as the proposed zone to be taken forward. The selected onshore substation location avoids all international, national, county and local landscape designations.

No.	Relevant Representation	Applicant's Comments
		The maximum sizes of the key onshore substation parameters are provided in ***Table 6.27*** of ***Chapter 6 Project Description*** (APP-054). The size of the onshore infrastructure has been determined through the Rochdale Envelope approach (see ***section 3.5 of Chapter 3 Policy and Legislative Context*** (APP-051) which sets out a series of realistic design assumptions from which worst case parameters are drawn for the Project. The project design envelope has a reasoned maximum extent for a number of key parameters. The final design would lie within the maximum extent of the consent. The project design envelope is used to establish the maximum extent to which the Project could impact on the environment. The detailed design of the Project could then vary within this 'envelope' without rendering the assessment inadequate. The physical footprint of the onshore substation is determined by: • Feasible technology (e.g. AC or DC transmission); • The size of infrastructure (e.g. the size of cables, size of building or equipment) which is determined by technology; • The number of each element required (e.g. cables, transformers, etc.); • Minimum spacings required for safe and efficient construction and operation (e.g. cable spacing); • Required stand-offs or crossing requirements (e.g. to other infrastructure or watercourses); • Other constraints (e.g. hard constraints or required buffers from human or environmental constraints), topography and natural features; • Construction methodology (e.g. open trench or trenchless techniques) and construction sequencing which is dependent upon constraints; • Access and storage (including spoil); • Drainage; and • Welfare and security.

No.	Relevant Representation	Applicant's Comments
		Post consent, the Applicant would detail the final design of the onshore substations to the capacity of electricity required to be converted and to accommodate the state of technology at that time. The final design would lie within the maximum extent of the consent being sought. The final onshore substation design would be developed post-consent. ***Section 3*** of the ***Outline Onshore Substation Design Principles Statement*** summarises the outline design principles that the Applicant will use as the foundation for developing the final Onshore Substation Design Principles post-consent, as part of the discharging of requirements of the ***draft DCO*** (APP-023). These include: • Continued engagement with Parish Councils, local residents and relevant authorities (Suffolk County Council (SCC) and East Suffolk Council (ESC)) on design and landscape proposals. • The landscape and building design proposals be subject to design review, in consultation with the relevant local authorities. • Consideration of 'Good Design' in line with the requirements of Overarching National Policy Statement (NPS) for Energy (NPS-EN-1). • Appropriate building design and materials will be actively sought as part of the procurement process. The ***draft DCO*** (APP-023) states that no stage of the onshore substation works may commence until details of the layout, scale and external appearance of the onshore substation have been submitted to and approved by the relevant planning authority.
002	In respect of the cable route we support the representations of the parishes and residents directly affected by the cable route. Our case is that the impacts on Friston and the surrounding area are so severe that development consent should be refused, or alternatively granted only for the offshore elements. The proposals should be	The Applicant notes the comments from Friston Parish Council with respect to the onshore elements of the Project. The Applicant is responding directly to Relevant Representations from other parish councils along the onshore cable route. The ***Development Consent and Planning Statement*** (APP-579) details how and why the Project accords with the NPS. ***Chapter 3 Policy and Legislation*** (APP-051) sets out the NPS which relate to the Project (***section 3.3.2)***. There are three NPSs which are of relevance to the Project:

No.	Relevant Representation	Applicant's Comments
	regarded as contrary to the relevant National Policy Statements and in any event there are compelling reasons to refuse development consent.	• EN-1 Overarching Energy; • EN-3 Renewable Energy Infrastructure, which covers nationally significant renewable energy infrastructure (including offshore generating stations in excess of 100MW); and • EN-5 Electricity Networks Infrastructure, which covers the electrical infrastructure associated with an NSIP. The Applicant has followed NPS EN-1, NPS EN-3, NPS EN-5 the Electricity Act 1989 (EA89) and National Grid's Guidelines on Substation Siting and Design (Horlock Rules) with the following aims: • Onshore substation(s) to be positioned as close to the existing National Grid overhead lines as possible to reduce the requirement for cabling; and • Onshore substation(s) and National Grid substation to be positioned as close as possible to each other to deliver an efficient and economic system (co-location). Paragraph 2.6.34 of EN-3 makes it clear that Applicant must work within the regulatory regime for offshore transmission networks established by Ofgem. The Applicant has done this and has gone through the appropriate processes for the siting of the grid connection in line with the regulatory framework. Guidance in the NPSs specific to each Environmental Impact Assessment (EIA) topic are outlined in each relevant Environmental Statement (ES) chapter (***Chapters 7 to 30***) (APP-055-078) with information on how each item has been addressed in the ES. The Project's accordance with the NPSs with reference to each ES topic is also detailed in ***section 6*** of the ***Development Consent and Planning Statement*** (APP-579).
003	The adverse impacts, including in respect of visual intrusion and landscape harm, heritage harm, noise and flood risk, cannot be mitigated to levels which could be regarded as acceptable. Our objections arise because of the impossibility of mitigating the impacts/the inadequacy of the	The Applicant disagrees that impacts cannot be mitigated to levels which could be regarded as acceptable. These points are covered in full detail below. Mitigation measures are covered in all individual topic chapters in the ES including, ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077)***, Chapter 24 Archaeology and Cultural Heritage*** (APP-072)***, Chapter 25 Noise and Vibration*** (APP-073) and ***Chapter 20 Water Resources and Flood Risk*** (APP-068).

No.	Relevant Representation	Applicant's Comments
	mitigation proposed in respect of these projects. We will prepare expert evidence to support the principal issues set out below.	
004	The Applicant's site selection process and the justification for a new grid connection in this location are fundamentally flawed. The National Grid substation/site/connection hub will be used for a number of projects and is an NSIP in its own right but NG's decisions, including site selection, have not been subject to an NSIP process. The manner in which NG's grid connection decisions have been made needs to be scrutinised.	The Applicant disagrees that the site selection process and the justification for a new grid connection in this location are flawed. As detailed above, National Grid provided a grid connection for the Project in the vicinity of Sizewell and Leiston and the Applicant has followed NPS EN-1, NPS EN-3, NPS EN-5 the Electricity Act 1989 (EA89) and National Grid's Guidelines on Substation Siting and Design (Horlock Rules). The EIA for both the Projects includes the National Grid Substation and National Grid Overhead Line Realignment Works as part of the 'key onshore components' of the Project, as described in ***section 6.4*** of ***Chapter 6 Project Description*** (APP-054). Any future modifications to the National Grid substation to accommodate future projects will be assessed as part of the consent applications submitted by future projects (if any) and is therefore not a matter for these applications.
005	The site selection and micro-siting process is flawed with regard to landscape and visual effect. It is not transparent, contains unidentified assumptions and reasoning and no genuine alternatives have been considered. As a consequence of a flawed site selection process, the substations would cause severe landscape and visual harm that cannot be mitigated. The harm is so severe as to justify the refusal of development consent.	The Applicant disagrees that the site selection and micro-siting process has been flawed with regard to landscape and visual effect. The Applicant considers that the methodology, including assumptions and reasoning, is robust and clear. These points are covered in full detail below. The Applicant notes the comments from Friston Parish Council with respect to the onshore elements of the Project. <u>Site Selection Process</u> The site selection process is described in full detail in ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-055)***.*** The initial onshore study area encompassed an area within a 1km buffer of the overhead line route into Sizewell. This was to ensure that any potential options, at a less economic and

No.	Relevant Representation	Applicant's Comments
006	Due to inappropriateness of location the substations would: 1. sever a substantial area of tranquil, open and deeply rural countryside; 2. conflict with the prevailing unified character of their surroundings; 3. Permanently stop up PRoWs and substantially harm the wider PRoW network 4. require an excessively long and wide access road, 1,700m long and 8m wide; 5. change completely the character of Friston; 6. harm the setting of Friston Church (Grade II*); 7. require a 9km long cable route which would impact on numerous receptors and the setting of Aldringham Court (Grade II).	efficient distance from the overhead line, would still be captured and considered. ***Section 4.9.1.2.4*** describes the subsequent review and refinement of this initial study area. Within the onshore study area, seven zones were identified as potential substation sites, based on available space to accommodate the required project (***section 4.9.1.3*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-055)). Additionally, a target buffer of 250m from residential properties was applied as a proxy for minimising disturbance to residents. The seven potential substation zones were scored using a RAG assessment (***Appendix 4.2*** (APP-443)) against criteria agreed with statutory consultees. These included archaeology / heritage, ecology, hydrology and hydrogeology, engineering, community, landscape and visual, property and planning. The RAG assessment did not identify the chosen onshore substation site, rather it was a tool that allowed a number of sites to be compared and the most acceptable sites identified at the time to progress to further assessment stages. The culmination of the various work streams as described in ***section 4.9.1.3*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-055) enabled the Applicant to decide that the substation zone northeast of Friston (Zone 7) as the proposed zone to be taken forward. Phase 3.5 Consultation (***section 4.9.1.6*** of ***Chapter 4 Site Selection and Assessment of Alternatives***) enabled the Applicant to engage with local communities and consultees on the opportunity to consider an alternative substation site at Broom Covert, Sizewell (Zone 8) in parallel with proposals for a substation site at Grove Wood, Friston (Zone 7). The Broom Covert, Sizewell site presented significant policy challenges in gaining consent which outweighed the increased cost of further cabling to the Grove Wood, Friston site. It is the Applicant's position, in accordance with policies set out in NPS EN-1 and based on extensive advice and stakeholder engagement that the Grove Wood, Friston site offers the most appropriate option for the siting of onshore substations and National Grid infrastructure (***section 4.9.1.7*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-055)). <u>Landscape</u> The selected onshore substation location avoids all international, national, county and local landscape designations. The landscape at the substation site is not designated for any special qualities of peace or tranquillity. It does not affect any ancient woodland and proposed

No.	Relevant Representation	Applicant's Comments
		mitigation measures ensure that any hedgerow loss which would occur is compensated for in new planting around the onshore substation. The site benefits from existing natural screening provided by Grove Wood and Laurel Covert, as well as other smaller tree blocks and hedgerows surrounding the site. These landscape features provide screening principally from the east and create a wooded backdrop in views from other directions, below which the height of the onshore substation and National Grid substation will be contained and in so doing, contribute to the mitigation of landscape and visual effects (***section 29.3.3*** of ***Chapter 29 Landscape Visual Impact Assessment*** (APP-077)). The ***Outline Landscape and Environmental Management Strategy*** (***OLEMS)*** (APP-584) summarises the general landscape and ecology principles and mitigation measures to be adopted during construction and operation of the onshore infrastructure associated with the Project and will provide the framework for the preparation of the final, more detailed Landscape Management Plan (LMP) and Ecological Management Plan (EMP) which will be developed post-consent in agreement with the relevant local planning authority. <u>Public Rights of Way</u> Public Rights of Way (PRoW) are assessed in ***section 30.6.1.4.2.1*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP078)***.*** There are 26 PRoW within the whole of the onshore development area for which management measures are required, which will allow them to be used throughout construction and two PRoW at the substation site which will require permanent diversion. The ***Outline Public Rights of Way Strategy*** (APP-581) outlines the management principles to be adopted in ensuring that PRoW are managed in a safe and appropriate manner during construction and operation. Precise details for the management of each PRoW, including the specification of any PRoW temporary diversions, during construction works will be agreed with the Local Planning Authority (following consultation with the Local Highway Authority) through approval of the final PRoW Strategy, prior to commencement of any stage of the authorised development that would affect a PRoW specified in Schedule 3 or 4 of the ***draft DCO*** (APP-023).

No.	Relevant Representation	Applicant's Comments
		For PRoW which will be permanently stopped up, as set out in Article 10 of the ***draft DCO,*** the existing PRoW cannot be extinguished until the Local Highway Authority confirms that the alternative PRoW has been created to the standard defined in the final PRoW Strategy. For temporary stopping up of PRoW, Article 11 of the ***draft DCO*** requires the alternative right of way to be in place to the reasonable satisfaction of the Local Highway Authority before the existing PRoW can be temporarily stopped up. As described in ***section 3.5.13*** of the ***OLEMS*** (APP-584), a LMP will be produced prior to construction, in agreement with the relevant local planning authority, which will seek to deliver gains for public amenity by including enhanced access through PRoW proposals. Users of the PRoW network around the onshore substation will be given the option of diverted routes, and therefore retain the option to walk around the area on longer, medium or shorter routes. <u>Heritage Setting</u> Impacts on heritage setting are assessed in appendices ***24.3*** and ***24.7*** of ***Chapter 24 - Archaeology and Cultural Heritage*** (APP-072) and section ***22.6.1.1.3*** of ***Chapter 22 Onshore Ecology*** (APP-070). The settings assessment approach is detailed in section ***24.4.3.2*** of ***Chapter 24 - Archaeology and Cultural Heritage*** (APP-072), with the heritage settings assessment detailed in section ***24.5.2.3***.
007	Planting cannot mitigate development in the wrong location & given local soil and climatic conditions the assumed growth rate of mitigation planting is highly questionable.	The Applicant disagrees that the mitigation planting and growth rates are questionable. The Applicant considers that the growth rates outlined are appropriate and achievable, as covered in full detail below. Assumed growth rates are based on relevant guidance from the Institute of Environmental Management (IEMA), research of relevant published literature and plant nurseries, and are comparable to precedents established by other Nationally Significant Infrastructure Projects (NSIPs) as set out in ***section 3.5.4*** of the ***OLEMS*** (APP-584)),

No.	Relevant Representation	Applicant's Comments
		The Applicant held expert topic group meetings in which growth rates were discussed with the local planning authority **(Table 3.1** of the ***OLEMS*** (APP-584)). ***Section 3.5.4*** of the ***OLEMS*** (APP-584) provides information on the assumed growth rates of trees utilised for landscaping. The early years of growth, young trees will be establishing, and are assumed to have good vigour, but likely to have limited screening effects in the landscape. Woodland planted areas are assumed to be well established between 5 to 10 years post-planting, with young trees growing in height, having increasing landscape significance and providing some screening of the onshore substations. Between 10 to 15 years post-planting, fully established trees are assumed to be generally retaining good vigour and starting to achieve good height with tree crowns spreading and are assumed to provide notable screening of the onshore substations and National Grid infrastructure. Heights of trees at 15 years post-planting are estimated in paragraph 82 of the ***OLEMS*** (APP-584) with ranges given for the different proposed types of trees to be planted. Requirement 14 of the ***draft DCO*** (APP-023) states that the Applicant cannot commence onshore works until a written landscape management plan has been submitted to and approved by the local planning authority. The plan must accord with the ***OLEMS*** (APP-584) and include details of the ongoing maintenance and management of the landscaping works. Requirement 15 of the ***draft DCO*** (APP-023) requires all landscaping works to be carried out in accordance with the approved landscape management plan and in accordance with the relevant recommendations of appropriate British Standards.
008	The substations and ancillary infrastructure are arbitrarily and unsympathetically imposed upon the existing landscape framework. Micro-siting and mitigation do not minimise potential impacts. Concerns regarding the LVIA include but are not limited to:	The Applicant disagrees that the substation site selection and micro-siting is unsympathetically imposed with regard to landscape and visual effect. The Applicant considers that the methodology and mitigation, is robust and clear. These points are covered in full detail below. <u>Methodology</u> The approach to the LVIA was consulted upon during all phases of consultation for the Project, as detailed in ***section 5.3*** of ***Chapter 5 EIA Methodology*** (APP-053). Furthermore, technical consultation through Expert Topic Groups (ETGs) as part of the Evidence Plan Process (EPP)

No.	Relevant Representation	Applicant's Comments
	1. an absence of plans showing the scheme and Friston village together. 2. questionable judgements regarding sensitivity and magnitude of change. 3. the use of Suffolk County LCTs instead of more up to date LCAs from Suffolk Coastal and lack of justification for subdividing these LCTs. 4. lack of detail regarding significant infrastructure components e.g. the access road. 5. absence of viewpoints from the footpaths north of the site (e.g. showing relationship between the church and site).	ensured agreement on the scope and approach to the LVIA, as detailed in ***section 5.3.4*** of ***Chapter 5 EIA Methodology*** (APP-053). Landscape Character Types A description of the landscape character is within ***section 29.5.2*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077). The Landscape Character Types (LCTs) are defined in the Suffolk County Council Landscape Character Assessment (Suffolk County Council, 2008/2011) and these define the baseline for the LVIA study area, as agreed during ETG consultations, and are shown in ***Figure 29.2.*** As per ***section 29.2.3.1*** of ***Appendix 29.3*** (APP-567)**,** key characteristics of landscape character areas from the Suffolk Coastal LCA (Suffolk Coastal District Council, 2018)[18] are also referred to, in order to further describe the sense of place and distinctiveness of the Suffolk County LCTs. Suffolk Coastal LCAs are based on the Suffolk County LCTs, as explained in section 1.4 of the Suffolk Coastal Landscape Character Assessment (East Suffolk Council, 2018)[19]: "*The character type boundaries in the County assessment have been used to help define the extent of character areas*". This was to ensure a good fit across administrative boundaries. The landscape assessment in ***Appendix 29.3*** repeatedly makes reference to the Suffolk Coastal LCAs throughout. Detail regarding infrastructure ***Section 5.4*** of ***Chapter 5 EIA Methodology*** (APP-053) explains that the Project is based on a project design envelope (or 'Rochdale Envelope') approach. It is recognised by the Planning Inspectorate Advice Note Nine that, at the time of submitting an application, offshore wind developers may not know the precise nature and arrangement of infrastructure and associated infrastructure that make up the proposed development. In accordance with the accepted industry approach, the impact assessment has been undertaken based on a realistic worst case scenario of predicted impacts, which are set out within each topic chapter.

[18] Suffolk Coastal District Council (2018) Suffolk Coastal Landscape Character Assessment
[19] Suffolk County Council (2018) Suffolk Landscape Character Assessment

No.	Relevant Representation	Applicant's Comments
		Detail on all relevant infrastructure is included in ***Chapter 6 Project Description*** (APP-054). This includes details on the Substation Operational Access Road. Further details on this access road are within ***Figure 26.2*** within ***Chapter 26 Traffic and Transport*** (APP-307). The permanent operational access road would be up to 8m in width, and up to 1,700m in length. The DCO also requires that prior to the commencement of any works for the onshore substation, details of the layout, scale and external appearance of the onshore substation to submitted to and approved by the relevant local planning authority. Viewpoints Representative viewpoints have been agreed for the LVIA as part of the SLVIA ETG consultations. This has allowed the landscape character and visual amenity of the study area to be experienced in a range of different conditions and seasonal variation. Field surveys are carried out throughout the study area, although the focus is on the substation area shown on the Zone of Theoretical Visibility (ZTV), with viewpoints and specific visual receptors selected from where theoretical and actual visibility of the Project will occur. Those viewpoints and specific visual receptors that are within the village of Friston are included within ***Figure 29.4*** (APP-394).
009	SPR has not adequately or accurately assessed flood risk impact to Friston which is prone to flooding. The elevated baseline flood risk to Friston village from surface water is not given the same focus as other lower flood risks.	The Applicant disagrees that flood risk has not been adequately or accurately assessed. The Flood Risk Assessment in ***Appendix 20.3*** (APP-496) is in accordance with EN-1 Overarching National Policy Statement (NPS) for Energy, National Planning Policy Framework (NPPF) (Ministry of Housing, Communities & Local Government 2019)[20], Planning Practice Guidance (PPG) for Flood Risk and Coastal Change (Ministry of Housing, Communities & Local Government 2014)[21], and the Environment Agency's Climate Change Allowance guidance (Environment Agency 2016)[22].

[20] MCLG (2019) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf
[21] MCLG (2014) Flood Risk and Coastal Change. Available at: https://www.gov.uk/guidance/flood-risk-and-coastal-change
[22] Environment Agency (2016) Flood Risk Assessments: Climate Change Allowances. Available at: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

No.	Relevant Representation	Applicant's Comments
	The proposed mitigation measures: 1. do not demonstrate that the increase in flood and sediment mobilisation risk to Friston, during either construction or operation, can be addressed; 2. are not demonstrated to be feasible. These matters cannot be left to the subsequent discharge of requirements. The proposals need to be subject to full environmental assessment with regard to flood risk and to sequential testing. The application submissions are flawed in this regard.	The comprehensive flood risk assessment has been undertaken and presented, along with embedded mitigation measures within ***Section 20.3.3*** and ***Table 20.3*** of ***Chapter 20 Water Resources and Flood Risk*** (APP-068). Issues pertinent to construction phase drainage, including consideration of surface water runoff, will be managed through the development and implementation of a Surface Water Drainage Plan and Flood Management Plan to be submitted to and agreed with the relevant local planning authority post-consent as part of the Code of Construction Practice (CoCP), as secured under Requirement 22 of the ***draft DCO*** (APP-023). Works cannot commence until these plans have been approved by the relevant local planning authority. The Surface Water Management Plan will secure measures which limit discharges to a controlled rate (equivalent to the greenfield runoff rate) and ensure that any redirected overland flow routes do not cause an increase in off-site flood risk. Operation phase drainage measures will be secured through the production and implementation of a Landscape Management Plan (LMP) to be prepared and agreed with the relevant local planning authority post-consent in line with the requirements set out in the ***draft DCO*** (APP-023). The final LMP will be based upon the ***OLEMS*** (APP-584). ***Section 20.6.2.1.2*** of ***Chapter 20 Water Resources and Flood Risk*** (APP-068) sets out additional mitigation measures to be implemented for the operation phase that will mitigate impacts in relation to surface water runoff and flood risk, and the Applicant has demonstrated that implementation of these mitigation measures is feasible. ***Section 20.6.1.4*** concludes that with the implementation of appropriate mitigation measures there is no increase in surface runoff and flood risk in the Friston Watercourse catchment and therefore there is no potential for increased flood risk impact to Friston. In addition, the Applicant retains the option to install further attenuation measures along the existing surface water flow route during the detailed design phase. The Applicant has committed to providing an additional 'surface water management SuDS basin' (currently identified as a concept within ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077), and in the ***OLEMS*** (APP-584) to reduce water in-flow rates to the substation area and potentially reduce flood risk for the village of Friston, in addition to the Surface Water Drainage Strategy currently proposed. Confirmation of the size, volume and location of this additional

No.	Relevant Representation	Applicant's Comments
		'surface water management SuDS basin' will follow establishment of an appropriate catchment hydraulic model and the detailed design of the onshore substation and National Grid substation. Discussions regarding these matters are ongoing between the Applicant and the local planning authorities through the statement of common ground process.
010	The project at the substation site will impact upon at least five Grade II and two Grade II* listed buildings. • The felling of trees on the cable route to the south of the Grade II-listed Aldringham Court negatively damages the setting of the building, as well as the landscape and residents close by. • Heritage impacts are underestimated significantly as is the cumulative heritage impact on the cluster of listed buildings which surround the substation site. • There is only a visual assessment of setting with little regard to wider identification and assessment of setting. • The viewpoints and visualisations are highly selective and do not include key views. • There is an historic parish/hundred boundary in the middle of the substation site.	The Applicant notes the potential impacts identified with respect to Cultural Heritage and the setting of listed buildings in the vicinity of Friston. The Applicant disagrees that the felling of trees on the cable route to the south of the Grade II-listed Aldringham Court negatively damages the setting of the building, as well as the landscape and residents close by. A summary potential impacts on listed buildings is provided in ***Appendix 24.2*** of ***Chapter 24 Archaeology and Cultural Heritage*** (APP-072). As stated in section ***24.5.2.2***, there are no designated heritage assets (e.g. listed buildings) within the onshore development area. The following reports and figures were produced that detail the location of listed buildings and their proximity to the onshore development area: • ***Chapter 24 – Archaeology and Cultural Heritage*** (APP-072) (***Appendix 24.5 Figure 24.2***) • ***Figure 24.2 – Designated Heritage Assets within the Onshore Archaeology and Cultural Heritage Study Areas*** (APP-301) • ***Archaeology and Cultural Heritage Cumulative Impact Assessment with the Proposed East Anglia ONE North Project*** (APP-513) The Applicant Disagrees that heritage impacts are underestimated. Impacts on heritage setting are assessed in appendices ***24.3*** and ***24.7*** of ***Chapter 24 - Archaeology and Cultural Heritage*** (APP-072) and section ***22.6.1.1.3*** of ***Chapter 22 Onshore Ecology*** (APP-070). The settings assessment approach is detailed in section ***24.4.3.2*** of ***Chapter 24 - Archaeology and Cultural Heritage*** (APP-072), with the heritage settings assessment detailed in section ***24.5.2.3***.

No.	Relevant Representation	Applicant's Comments
	• The mitigation proposed does very little to reduce the heritage impacts.	Regarding viewpoints and visualisations, a comprehensive settings assessment is undertaken in ***Appendix 24.7*** which is not restricted to only considering a visual assessment. The methodology used is as per the Historic England guidance (Historic England 2017)[23] of a staged approach to the assessment of potential impacts on heritage significance. The recognised approach is to assess the contribution made by setting to significance, involving desk-based research and site visits to the heritage assets. The Applicant acknowledges that the onshore substation and National Grid substation are proposed to be located on part of the historic parish boundary of Friston. The Applicant has assessed the cultural heritage impact to the historic parish boundary in two ways, both as a physical asset and within the assessment of Historical Landscape Character; and also assessed the physical loss of the PRoW associated with the historic parish boundary: 1. The potential loss of any above ground boundary features associated with the historic parish boundary ***Section 24.6.1.2*** of ***Chapter 24 - Archaeology and Cultural Heritage*** (APP-072) assesses the potential impact on historic parish boundaries. The onshore development area includes six parish boundaries (PB1-6) five of which survive as visible features in the landscape, as trackways (PB1 and PB5) or roads flanked by hedges (PB2 and PB3. The river that defines PB4 still follows the course of the boundary. The onshore cable corridor crosses five (PB2-6) of these parish boundaries (***Figure 16*** in ***Appendix 24.3***). Parish boundaries are discussed in greater detail in ***section 24.5.4*** of the chapter as part of the assessment of Historic Landscape Character. The onshore substation and National Grid substation location includes one parish boundary (PB1). The hedgerows associated with this boundary are classed as "Important Hedgerows" (under the Hedgerows Regulations 1997) and are therefore considered to be heritage assets. 2. The potential loss of associated views of Friston from the PRoW heading south

[23] Historic England (2017). The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (Second Edition), [Online]. Available: https://content.historicengland.org.uk/images-books/publications/gpa3- setting-of-heritage-assets/heag180-gpa3-setting-heritage-assets.pdf/ [Accessed June 2020]

No.	Relevant Representation	Applicant's Comments
		Appendix 24.7 (APP-519) discusses the '*public footpath that leads to Friston*', identifying changes to the user-experience of the PRoW associated with the Parish boundary (PB1): *Cultural Heritage Viewpoint 4] illustrates a view looking south from close to Little Moor Farm (1215743) along the public footpath that leads to Friston. The church tower is visible on the skyline when walking south along this path and can be seen in the baseline photography at a range of 1.2km … It may be noted that it is proposed that this right of way will be diverted as it would be blocked by the onshore substations and National Grid substation. However, the southern end of this path closer to Friston would remain open and the views of the church in this final 350m closest to Friston would be unaffected.* The settings assessment concludes that the impact of the loss of the PRoW associated with the Parish boundary (PB1) results from the loss of views of the Friston Church tower when approaching Friston from the north along the footpath from Little Moor Farm. This results in a moderate adverse impact on the significance of Friston Church's setting. This impact is stated in ***Table 24.21*** in ***section 24.6.2.1*** of ***Chapter 24 Archaeology and Cultural Heritage***. <u>3. The potential loss of the trackway (PRoW) associated with the historic parish boundary</u> The Applicant notes that the trackway associated with the historic parish boundary (PB1) is not a physical heritage asset recorded in the Historic Environment Record, nor is it formally designated. The assessment of impacts upon PRoW from the Project, i.e. the physical loss of the PRoW, is presented within ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078). ***Section 30.6.1.4.2.1*** states: *There are two PRoW in the location of the onshore substation and National Grid infrastructure that will require permanent diversion (ID number: E-354/006/0 and E-387/009/0). This could result in a significant impact but will be mitigated through consultation on a permanent diversion and landscaping to develop an attractive footpath that walkers can enjoy. Therefore, the residual impact is negligible long term and minor adverse before the landscape features mature.*

No.	Relevant Representation	Applicant's Comments
		The Applicant has engaged with the Suffolk County Council Archaeological Service through the Statement of Common Ground process and notes that Suffolk County Council and East Suffolk Council do not consider that the significance of the historic parish boundary and associated PRoW have been adequately captured. However, the Applicant considers that the historic parish boundary and associated PRoW have been assessed appropriately, as outlined above. As part of the site selection process, avoidance, micro-siting and onshore cable route refinement have been embedded into the design of the Project (see ***section 24.3.3*** of the chapter), where possible (including parish boundaries). This ensures that archaeological and cultural heritage considerations inform and play an active role in ongoing design decisions, within the confines of other environmental and engineering constraints. The Applicant has been aware of the historic parish boundary since the production of the ***Archaeology and Cultural Heritage Desk Based Assessment*** (***Appendix 24.3*** (APP-514)) in November 2018, also submitted as part of the Preliminary Environmental Information Report for Section 42 consultation. Delivery of the Project requires the onshore substation and National Grid substation to be built on the historic parish boundary (and associated PRoW) and this could not be avoided. As part of the embedded mitigation, the Project has also committed to undertake additional programmes of post consent survey and evaluation (described in ***section 24.3.3.1.1*** as informative stages of mitigation work). This strategy is outlined as part of a project-specific ***outline Written Scheme of Investigation*** (APP-582), which includes a range of likely mitigation options and responses to be utilised under various scenarios. The final WSI will be prepared post-consent in consultation with SCCAS and HE. Impact to the Historic Landscape Characterisation (HLC) (including hedgerows and parish boundaries) will be minimised by returning field boundaries / areas / hedgerows to their preconstruction condition and character post-construction where possible, as part of a sensitive programme of backfilling and reinstatement / landscaping (see ***section 24.3.3.1***). Certain hedgerows and field boundaries (e.g. parish boundaries) may require recording prior to the construction process and enhanced provisions made during backfilling and reinstatement.

No.	Relevant Representation	Applicant's Comments
		Further detail regarding hedgerow reinstatement is provided in the ***OLEMS*** (APP-584), secured under the requirements of the ***draft DCO*** (APP-023) and submitted with this Application. The final LMP will be produced post-consent and approved by the relevant planning authority. The mitigation measures adopted by the Project will be determined as the Project progresses in a specific and bespoke manner, tailored on a case-by-case / area-by-area basis (as required) accordingly and in response to the combination of archaeological and cultural heritage survey and assessment, initial targeted surveys (***Table 24.3***) and post-consent investigations (***section 24.3.3.1.1***) of the Project. An Outline Landscape Mitigation Plan (OLMP) was submitted with the application as part of the ***OLEMS*** seeks, among other objectives, to reduce adverse impacts on heritage assets. The OLMP has been developed to take into consideration historic landscape and re-establishing historic field boundaries. This includes the re-establishment of historic field boundaries, filling gaps in existing hedgerows and introducing field boundary trees where appropriate. A final detailed LMP will be produced post-consent which will be approved by the Local Planning Authority in order to discharge requirement 14 of the ***draft DCO*** (APP-023) which states that these plans must be produced in accordance with the ***OLEMS***. Through submission and approval of the final LMP, the provision of landscaping associated with the construction and operation of the onshore infrastructure will be formally controlled and implemented.
011	The Environmental Statement has many errors and omissions. The proposed 34db LAeq 5min as a limit is unacceptable in a tranquil rural environment with a low night-time noise level and there is no evidence that it will not be intrusive in a tranquil rural environment Failure to apply a tonality penalty is	The Applicant disagrees that the Environmental Statement has errors and omissions. An assessment of existing noise levels is presented within ***Appendix 25.3*** (APP-524) and summarised in ***section 25.5*** of ***Chapter 25 Noise and Vibration*** (APP-073). A baseline noise level of 29dB was recorded during baseline monitoring. An operational noise limit of background +5dBA on noise sensitive receptors has been applied to the operational noise emissions emanating from the onshore substation, both alone and cumulatively with the East Anglia ONE North onshore substation. This is in accordance with BS4142:2014+A1:2019 and is secured through Requirements 26 and 27 of the ***draft DCO*** (APP-23). Therefore, an operational noise limit of 34dB LAeq (5 minutes) has been adopted,

No.	Relevant Representation	Applicant's Comments
	unacceptable and unjustified. There is no evidence that there will not be one off random noise events The overriding community requirement is for residential and recreational property (both inside and out) to be free at all times from perceptible substation noise. Any agreed limit must be achievable and enforceable at any time under any environmental conditions. • Restricting noise testing to only two locations is unacceptable. • There is no analysis of the possibility of ground borne noise. • Compliance with all agreed noise limits shall be mandatory throughout the life of the projects because plant as it ages can become noisier Given the hours of working and the proximity of the substations site and cable route to Friston/residences, construction noise could be very intrusive. These matters cannot be left to the subsequent discharge of requirements. The proposals need to be subject to full environmental assessment with regard to noise and to sequential testing and the	which includes penalties associated with tonality. Further detail on this will be presented in a Noise Assessment Clarification Note which will be provided during Examination. As SSR5 NEW and SSR2 are the closest receptors, by stipulating an operational rating noise limit in accordance with S4142:2014+A1:2019 of 34dBA, other noise sensitive receptors would experience lower predicted levels due to their increased separation distance from the specific sound source (onshore substations). A final design of the onshore substation will be produced which is able to meet the rigorous standards of low noise emissions expected by both the UK regulatory bodies and stakeholders, and the requirements of the DCO. The assessment of ground-borne noise is associated with noise caused by vibration (normally associated with railway lines). This potential impact has been scoped out of the assessment as it is not applicable to these Projects. The Applicant has undertaken an assessment of construction vibration within ***section 25.6.1.3*** and concluded impacts from construction activities would be of negligible magnitude on receptors of medium sensitivity and therefore of minor adverse significance. Post consent, detailed design for each Project will be set out in the Construction Phase Noise and Vibration Management Plan, within the CoCP in accordance with requirement 22 of the ***draft DCO***, which is to be submitted to and approved by the local planning authority in advance of construction works commencing. A scheme for monitoring compliance with the noise rating levels in requirement 26 of the ***draft DCO*** will be implemented as approved by the local planning authority. This scheme is required to include identification of suitable monitoring locations (and alternative surrogate locations if appropriate) and times when the monitoring is to take place to demonstrate that the noise levels have been achieved after both initial commencement of operations and six months after the substation is at full operational capacity. Additional measures likely to be considered as part of these schemes in order to achieve the DCO noise limitations involve: • Selection of quieter equipment; • Installation of acoustic enclosures;

No.	Relevant Representation	Applicant's Comments
	application submissions are flawed in this regard.	• Installation of acoustic barriers; • Silencing of exhausts/outlets for air handling/cooling units; and • Locating and orientating equipment to take advantage of screening inherent in the design. An assessment of construction phase noise on residential receptors along the onshore development area is presented within ***Section 25.6.1.1*** (Impact 1) of ***Chapter 25 Noise and Vibration*** (APP-073). The construction phase noise assessment was undertaken in accordance with BS5228-1:2009+A1:2014, the industry accepted standard for assessing construction noise. The results presented in ***Table 25.28*** of ***Chapter 25 Noise and Vibration*** (APP-073) show that predicted noise levels at the onshore substation and National Grid Infrastructure sensitive receptor locations arising from construction works would be of no magnitude and therefore negligible significance.
012	The focus is only on aesthetics not the best possible engineering/configuration of the substations to reduce their size, noise emissions etc to achieve "low impact". An independent engineering authority should verify any design proposed (including the land requirements) meets these criteria. National Grid's developments should be subject to the same design criteria/requirements as SPR's.	The project design envelope is used to establish the maximum extent to which the Project could impact on the environment. The detailed design of the Project could then vary within this 'envelope' without rendering the assessment inadequate. Post consent, the Applicant would detail the final design of the onshore substations to the capacity of electricity required to be converted and to accommodate the state of technology at that time. The final design would lie within the maximum extent of the consent being sought. The final onshore substation design would be developed post-consent. ***Section 3*** of the ***Outline Onshore Substation Design Principles Statement*** summarises the outline design principles that the Applicant will use as the foundation for developing the final Onshore Substation Design Principles post-consent, which includes consideration of noise emissions, as part of the discharging of requirements of the ***draft DCO*** (APP-023). These include: • Continued engagement with Parish Councils, local residents and relevant authorities (Suffolk County Council and East Suffolk Council) on design and landscape proposals. • The landscape and building design proposals be subject to design review, in consultation with the relevant local authorities.

No.	Relevant Representation	Applicant's Comments
		• Consideration of 'Good Design' in line with the requirements of Overarching National Policy Statement for Energy (NPS-EN-1). • Appropriate building design and materials will be actively sought as part of the procurement process. Additional measures likely to be considered as part of part of the onshore substations detailed design may involve: • Selection of quieter equipment; • Installation of acoustic enclosures; • Installation of acoustic barriers; • Silencing of exhausts/outlets for air handling/cooling units; and • Locating and orientating equipment to take advantage of screening inherent in the design. Requirement 12 of the ***draft DCO*** (APP-023) also provides that no stage of the national grid substation comprised within Work No. 41 may commence until details of the layout, scale and external appearance of the national grid substation have been submitted to and approved by the relevant local planning authority. Work No. 41 must be carried out in accordance with the approved details.
013	There is a significant loss of Grade 2 and 3 agricultural land, over 30 hectares.	The Applicant notes Friston Parish Council's concerns with regard to loss of Grade 2 and 3 agricultural land. Impacts to agricultural land arising from the operation of the Project are assessed within ***section 21.6.2*** of ***Chapter 21 Land Use*** (APP-069). The operation phase, and therefore permanent, land take for the onshore substation and National Grid Infrastructure would total 33.59ha (including landscaping). Whilst the sensitivity of the Grade 2-3 agricultural land has been assessed as high, the magnitude of impact is low due to the total area lost representing 0.01% of Suffolk's total farmed resource. In the context of the county, the residual impact is assessed to be of minor adverse significance.

No.	Relevant Representation	Applicant's Comments
014	The projects will involve the loss and disruption of habitat for badgers, bats, owls, great crested newts, adders and other wildlife. Four active badger setts will be destroyed at the substations site. Bats are present at the site and along the cable route including the rare lesser horseshoe bat All wildlife will be disturbed by noise and light pollution both during construction and operation at the substations site.	The Applicant notes that the principal areas of concern regarding the impact to habitats as a result of the Project include the loss of habitat for locally important wildlife through the construction phase and as a result of the permanent infrastructure, the permanent removal of habitat at the substation site and the severance of habitats, particularly on and within proximity to the substation site. As stated in sections ***22.6*** and ***22.10*** of ***Chapter 22 Onshore Ecology*** (APP-070), the potential impacts to habitats have been fully assessed by way of desk-based assessments and field surveys. The chapter concludes negligible to minor impacts to habitats through construction and operation of the Project. ***Chapter 22 Onshore Ecology*** (APP-070), ***sections 22.6*** and ***22.10***, states that the potential impacts to wildlife have been assessed by way of desk-based assessments and site surveys. The following surveys, figures and reports were undertaken that provide a robust assessment of local habitats and the impacts resultant from the Project: • ***Chapter 22 Onshore Ecology*** (APP-070) • ***Appendix 22.3 - Extended Phase 1 Habitat Survey (Part 1 of 2)*** (APP-503), ***Appendix 22.3 - Extended Phase 1 Habitat Survey (Part 2 of 2)*** (APP-504), ***Figure 22.4a-f - Extended Phase 1 Habitat Survey Results*** (APP-277) Species and habitats for which potential impacts during construction, operation and decommissioning were assessed include: • Arable habitat; • Grassland habitat; • Woodland and trees (mitigation is discussed in ***section 22.6.1.4.2***); • Hedgerows (mitigation is discussed in ***section 22.6.1.5.1***); • Coastal habitats; • Watercourses and Ponds (mitigation is discussed in ***section 22.6.1.7.1***);

No.	Relevant Representation	Applicant's Comments
		• Badgers (mitigation is discussed in ***section 22.6.1.8.4***); • Bats (mitigation is discussed in ***section 22.6.1.9.2***); • Great Crested Newts (mitigation is discussed in ***section 22.6.1.10.2***); • Reptiles (mitigation is discussed in ***section 22.6.1.11.2***); and • Invasive non-native species (mitigation is discussed in ***section 22.6.1.12.2***). The chapter concludes minor impacts to most species through construction and operation of the Project following the mitigation measures as detailed in the chapter, which will be secured through the Ecological Management Plan (EMP). Significant residual impacts will remain after mitigation for bats (during the construction phase) due to potential loss of roosting and foraging habitat. Replacement habitat will be managed and maintained to ensure the bat population will persist and monitoring of the population will be undertaken to assess the success of any mitigation where possible, as detailed in the ***OLEMS*** (APP-584).This significant impact to the bat population will be short term and temporary. This temporary magnitude of effect will further reduce (to negligible) over time as hedgerows fully recover. As such, this represents a temporary residual impact of moderate adverse significance, reducing to minor adverse significance within 3-7 years once hedgerows have fully recovered. Pre-construction ecological surveys will be undertaken to ensure appropriate ecological mitigation (if required) is in place prior to commencement of the relevant works secured through the production of an EMP to discharge requirements of the DCO. This will be in accordance with the ***OLEMS*** (APP-584). The ***OLEMS*** outlines the requirement for landscape and ecological (including ornithological) mitigation measures. The EMP will be submitted for approval by the local planning authority in consultation with the relevant SNCB prior to commencement of works. This must reflect the survey results and mitigation measures included in the ES. The Applicant has identified areas to provide species mitigation should updated surveys reveal the need for specific measures.

No.	Relevant Representation	Applicant's Comments
015	The A12 / A1094 junction is an accident black spot. The mitigation measures are inadequate. Further any introduction of a roundabout will cause serious congestion on the A12 with slow braking and accelerating HGVs. There is a risk to the journey times of emergency vehicles. Only Heavy Goods Vehicles (HGVs) traffic will be monitored. No monitoring commitment is given regarding the passage of all other types of vehicle, particularly on local minor roads which could become "rat-runs" A pre-construction access is proposed to the development from the junction of Church Road (single track road) and Grove Road. This could have significant impact upon the residents of Friston, walkers and cyclists.	The Applicant notes Friston Parish Council's concerns regarding the A12 / A1094 junction. ***Chapter 26 - Traffic and Transport, Table 26.4*** covers embedded mitigation on routeing. The Applicant believes that the mitigation measures proposed at this location are appropriate, and is currently in discussion with Suffolk County Council through the Statement of Common Ground (SoCG) process to agree the mitigation to be put in place. The strategy for access applies a hierarchical approach (informed by the Suffolk County Council HGV route hierarchy) to selecting routes and where possible, seeks to reduce the impact of HGV traffic upon the most sensitive communities. The access strategy includes the following commitments: • All HGV construction traffic would be required to travel via the A1094 or B1122 from the A12, no HGV traffic would be permitted to travel via alternative routes, such as the B1121 or B1119. • No HGV construction traffic would be permitted to travel via Leiston or Coldfair Green / Knodishall. • No HGV construction traffic would be permitted to travel via the B1121 through Friston, Sternfield or Benhall-Green. • No HGV construction traffic would be permitted to travel via the B1353 towards Thorpeness. • To avoid the requirement for HGVs to travel via the B1122 from B1353 towards Thorpeness, all HGV construction traffic for the landfall would access the landfall location via Sizewell Gap. Vehicles would then travel south on a temporary haul road to the landfall location. • All HGV traffic to the onshore substation and National Grid Substation to avoid travelling via Friston or Sternfield by accessing from the B1069 (south of Knodishall/ Coldfair Green) and travelling along a temporary haul road and crossing over Grove Road. As detailed within requirement 28 of the ***draft DCO*** (APP-023), a Construction Traffic Management Plan (CTMP) is required to be submitted to the local planning authority for approval in consultation with the relevant highway authority. This must be based on the ***outline***

No.	Relevant Representation	Applicant's Comments
		CTMP (APP-586).and under the requirements of the ***draft DCO*** it must be implemented as approved. ***Chapter 26 Traffic and Transport Section 26.6.1.4 Material and Personnel Demand*** covers assumptions on worker travel, car share ratios were discussed and agreed with the ETG. The assessment assumes a car share ratio of 1.5, with all employee trips reduced by a factor of 1.5 at entry point to the onshore highway study area. This approach simulates multi pick up of employees prior to entering the onshore highway study area typically by crew-van or car-share syndicates. ***Chapter 26 Traffic and Transport*** is supported by an ***Outline Construction Traffic Management Plan (OCTMP)*** (APP-586) and an ***Outline Travel Plan (OTP)*** (APP-588). These documents are secured under the requirements of the ***draft DCO*** (APP-023). Prior to construction commencing, final versions of the CTMP and Travel Plan will be produced, in consultation with the Highway Authority and Highways England, for approval by the local planning authority to discharge requirements of the ***draft DCO*** (APP-023). These documents contain the controls, monitoring and enforcement measures to ensure compliance with designated routes and thus deter rat-running from construction workers. Development of a roundabout does not form part of the Project's application.
016	There is little in the way of an objective assessment of the human impact of the projects upon the local population a significant proportion of which is elderly and/or retired SPR dismiss anxiety as a "perception". Anxiety is very real to a person suffering from it. SPR has not carried out a survey of the actual demographics of Friston or those	The Applicant notes concerns raised in relation to mental health however the Applicant disagrees that anxiety is dismissed as a perception. The Applicant considers all aspects of mental health, including anxiety, as an integral part of human health which has been included as part of the assessment in ***Chapter 27 Human Health*** (APP-075). The Applicant notes a range of concerns regarding mental health and recognises that the Project will evoke responses which will vary across individuals. The Applicant has therefore sought to to engage with local communities as effectively as possible since the Project's inception, through a series of public information days (PIDs) (***section 27.2*** of ***Chapter 27 Human Health*** (APP-075)) and other methods (described further in the ***Consultation Report*** (APP-029)) in order to communicate and consult on Project developments as early as possible, as recommended by Public Health England to reduce mental health effects associated with

No.	Relevant Representation	Applicant's Comments
	living near the cable route, so its assessment of human impacts is not reliable. Anxiety will arise from: the traffic and the noise, air, light pollution and disruption associated with a potential construction period of 5/6 years even before the impact of other projects o the permanent loss of amenity (footpaths etc), tranquillity, landscape/heritage damage, and noise and light pollution financial uncertainty	stress, uncertainty and anxiety. See ***Table 1 in Volume 2*** (document reference ExA.RR2.D0.V1) for more details on consultation. The Applicant has sought to assess human health impacts (***Chapter 27 Human Health*** (APP-075)) in accordance with local strategy (e.g. Suffolk's Joint Health and Wellbeing Strategy) and best practice (e.g. the use of data from Public Health England to inform the assessment baseline and using the methodology agreed with Public Health England (***section 27.4***)). <u>Construction and operational disturbance</u> Due to the inherent variability between individuals and their personal responses, it is challenging to extrapolate disturbance impacts into a directly quantifiable assessment on mental health. The Applicant has therefore followed guidance from Public Health England to quantify health impacts where there is an evidence base for cause and effect relationships. Following the approach described above, the Applicant has considered human health effects (***Chapter 27 Human Health***) during construction due to changes in noise (***section 27.6.1.1***), air quality (***section 27.6.1.2***), ground or water contamination (***section 27.6.1.3***), physical activity (***section 27.6.1.4***) and journey times / reduced access to health services (***section 27.6.1.5***) for multiple receptor groups. The assessment finds that for the general population there would be no significant impacts (in EIA terms) on human health as a result of the construction of the Project. During operation, the Applicant has considered health outcomes relating to local employment (***section 27.6.2.1***), perception of risk (***section 27.6.2.2***), noise (***section 27.6.3.1***) and electromagnetic field effects (***section 27.6.3.2***). The assessment finds that for the general population there would be no significant impacts (in EIA terms) on human health during the operational phase of the Project. Concerns in Relevant Representations regarding mental health specifically relate to visual impacts visual impacts (***Table 12*** and ***Table 13***), public rights of way (***Table 23***), tourism (***Table 30***), noise (***Table 5*** and ***Table 16***), lighting (***Table 14***), traffic (***Table 31***) and air quality (***Table 2***) in ***Applicant's Comments on Relevant Relevant Representations Volume 2*** (document reference ExA.RR2.D0.V1). Please refer to each topic's respective Relevant Representation response in ***Applicant's Comments on Relevant Relevant Representations***

No.	Relevant Representation	Applicant's Comments
		Volume 2 (document reference ExA.RR2.D0.V1) for further information regarding the method of assessment, guidance followed, assessed impacts and proposed mitigation. Where mitigation is proposed, further detail is provided on how this is captured and secured within the ***draft Development Consent Order*** (APP-023) and post-consent requirements.
017	The proposals will necessitate the permanent closure of a well-used footpath leading north from the village of Friston causing a major loss of amenity. There are a further 26 PROWs throughout the onshore development area, which will be temporarily closed or diverted for unspecified amounts of time with a major loss of amenity.	The Applicant acknowledges Friston Parish Council's concerns with respect to temporary and permanent closure of PRoWs north of the village of Friston and along the onshore development area. Permanent closure of PRoW There are two PRoW within the onshore development area which interact with the Project on a permanent basis during construction and also during operation. These will require permanent stopping-up and diversion (as listed in ***Table 3.1*** in the ***Outline Public Rights of Way Strategy*** (APP-581) and as shown on the ***Permanent Stopping up of Public Rights of Way Plan*** (APP-014). Precise details for the management of each PRoW during construction works will be agreed with the Local Planning Authority (following consultation with the Local Highway Authority) through approval of the final PRoW Strategy, based on the ***Outline Public Rights of Way Strategy*** (APP-581), prior to commencement of any stage of the authorised development that would affect a PRoW specified in Schedule 4 of the ***draft DCO*** (APP-023).. As set out in Article 10 of the ***draft DCO,*** the existing PRoW cannot be extinguished until the Local Highway Authority confirms that the alternative PRoW has been created to the standard defined in the final PRoW Strategy. As described in ***section 3.5.13*** of the ***Outline Landscape and Ecological Mitigation Strategy*** (APP-584), an LMP will be produced and agreed with the relevant local planning authority prior to construction which will seek to deliver gains for public amenity by including enhanced access through PRoW proposals. Users of the PRoW network around the onshore substation will be given the option of diverted routes, and therefore retain the option to walk around the area on longer, medium or shorter routes.

No.	Relevant Representation	Applicant's Comments
		<u>Temporary diversions of PRoW</u> Potential temporary diversions of a number of PRoW have been proposed around the 26 PRoW The PRoWs to be temporarily stopped up / diverted are shown in the ***Temporary Stopping up of Public Rights of Way Plan*** (APP-013). ***Table 2.1*** in the ***Outline Public Rights of Way Strategy*** (APP-581) details the proposed management for PRoW requiring temporary control measures during construction. Access will be maintained through these temporary diversions. Precise details for the management of each PRoW, including the specification of any PRoW temporary diversions during construction works, will be agreed with the Local Planning Authority (following consultation with the Local Highway Authority) through approval of the final PRoW Strategy, prior to commencement of any stage of the authorised development that would affect a PRoW specified in Schedule 3 of the ***draft DCO*** (APP-023). Article 11 of the ***draft DCO*** requires the alternative right of way to be in place to the reasonable satisfaction of the Local Highway Authority before the existing PRoW can be temporarily stopped up. The temporary diversions around 26 PRoW will involve a short diversion around construction works, allowing construction works to progress in the area of the original PRoW. Once these construction works (or a phase of construction works) are complete, the PRoW would be reinstated along its original route. Depending on the nature and timing of the construction works this temporary diversion arrangement may be implemented a number of times during construction.
018	Onshore development elements contribute very little to the local economy during construction and nothing post construction. The loss of amenity etc. both during construction and thereafter will damage tourism and there has been no assessment	The Applicant disagrees that the development of the onshore elements of the Project will contribute very little to the local economy. Cumulative impacts have been assessed, as discussed below. <u>Employment</u> ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078) provides an assessment of the likely employment opportunities during construction. ***Section 30.6.1.1 Impact 1a:***

No.	Relevant Representation	Applicant's Comments
	of cumulative effects There has been no analysis of damage to "inward investment" as a result of the area being a less attractive place to live.	***Onshore Construction Employment*** – covers onshore construction related employment. Peak staff on site would be 249, with Full Time Equivalents (FTEs) an average of 167. It is estimated that 36% of the construction workforce could be local (i.e. within a 60-minute drive). In terms of the supply chain, ***Section 30.6.1.1 Impact 1a: Onshore Construction Employment*** shows the estimates for onshore employment. Locally (i.e. within an hour drive of the onshore study area) the supply chain is estimated to account for an average of 26 FTEs and regionally (within the New Anglia Local Enterprise Partnership (NALEP) area which covers Norfolk and Suffolk) there would be a further 47 FTEs. ***Section 30.6.1.2 Impact 1b: Offshore Construction Employment –*** covers offshore construction related employment, it is estimated that 100 - 300 direct FTE could be generated regionally (within the NALEP area). Note that this is likely to be generated from installation and commissioning work, with the manufacturing assumed to be outside the region. Nationally, FTEs from manufacturing would range from 1,600 to 4,100. ***Section 30.6.1.3 Impact 2: Tourism and Hospitality Sector Employment*** – covers the hospitality trade, given that some of the onshore construction workers will travel to the area and stay in local accommodation, this demand for accommodation would translate to potentially 7 FTEs in tourism and hospitality. ***Section 30.6.2.1 Impact 1: Long Term Employment –*** covers operational employment. It is estimated that regional offshore direct employment would be between 100 – 300 FTE jobs. These would be jobs related to the operation and maintenance of the offshore windfarm itself. There is potential for a further 100 – 400 FTE jobs within the supply chain regionally. Nationally there would be further FTEs associated with the supply chain. Onshore requirements would be limited to maintenance only as the substation will be unmanned. Offshore operational assumptions are that each Project would be run separately, hence operational employment is doubled for the cumulative scenario ***(Table 30.82***). <u>Tourism</u> Effects on tourism and recreation may potentially arise from two pathways:

No.	Relevant Representation	Applicant's Comments
		The first pathway is from direct impacts upon tourism and recreation assets during construction of the Project (i.e. physical disturbance – air quality, noise etc in ***Table 30.67, Table 30.68 and Table 30.69, Chapter 30 Tourism, Recreation and Socio-Economics***). The assessment also takes account of construction effects from transport and these have been fully assessed in ***Chapter 26 - Traffic and Transport*** (APP-074), ***Section 26.6. 1.11 Impact 4: Driver Delay (Capacity)*** and section ***26.6.1.12 Impact 5: Driver Delay (Highway Geometry)***. No significant adverse effects are predicted after mitigation described in the inter-related chapters (i.e. ***Chapter 19 Air Quality*** (APP-067), ***Chapter 20 Water Resources and Flood Risk*** (APP-068), ***Chapter 25 Noise and Vibration*** (APP-073) ***Chapter 26 Traffic and Transport*** (APP-074)). The second pathway is from the perception of large-scale developments as being an adverse impact on the area as a tourist destination. Whether there is a perception of development by visitors or potential visitors (and therefore an actual pathway for impact) will depend on two factors. Firstly, a development would need to be in the public eye and known to potential visitors. Although the Project is a Nationally Significant Infrastructure Project it is not an iconic project (e.g. Crossrail, Sizewell C New Nuclear Power Station, Heathrow Airport), and unlikely to be widely known or understood as a distinct project by the general public or visitors. Indeed, this point is supported by the DMO Report (*The Energy Coast Implications, impact & opportunities for tourism on the Suffolk Coast*) which states that *"Half of regional market* [visitors who responded to the DMO survey living within 3 hours of the Suffolk Coast] (*51%) unaware of EDF plans for Sizewell C whilst two-thirds (65%) unaware about SPR's plans*" (page 26). Secondly visitors already in the area would need come into contact with construction activity or traffic effects and link that to the Project. This would affect only visitors to the proximity of the onshore study area and as noted above all traffic impacts that would affect visitors (e.g. driver delay) were assessed as non-significant in EIA terms. Cumulative tourism and recreation disturbance impacts will come from the same two pathways; i.e. direct impacts upon tourism and recreation assets from construction and secondly from the perception of multiple large scale developments as being an adverse impact on the area as a tourist destination.

No.	Relevant Representation	Applicant's Comments
		With regard to the direct impacts, all projects (i.e. East Anglia TWO. East Anglia ONE North and Sizewell C) will need to mitigate their impacts to acceptable levels or provide similar mitigations for assets such as PRoWs. Proposed mitigation for the Project can be found in the following documents: ***Outline Public Rights of Way Strategy*** (APP-581), ***Outline Code of Construction Practice*** (APP-578) and the ***Outline Landscape and Ecological Management Strategy*** (APP-584). These documents provide the basis for the mitigation which will be set out in final documents which must be approved by the Local Planning Authority before onshore works can commence. Both of the Projects have this mitigation and Sizewell C would need to have similar requirements. It is therefore assumed that, with the exception of traffic impacts, these direct impacts would not be significant cumulatively as each project would mitigate their own impacts and unless projects had overlapping footprints there would be limited potential for cumulative impacts upon the same receptor. Given mitigation commitments it is considered that these impacts would be of negligible significance (see ***Table 30.71*** and ***Table 30.84***).
019	There will be significant light pollution given the "dark skies" of the present rural environment both during construction (particularly at construction compounds) and operation. During operation there will be security and car park lighting which even if "movement sensitive" will be frequently triggered by wildlife.	The Applicant notes Friston Parish Council's concerns with light pollution. <u>Potential impacts on dark skies</u> The construction works which will be undertaken near to Friston will have limited impact on dark skies. ***Appendix 29.3 Landscape Assessment*** (APP-584) considers the potential effects from construction and operational activities on the special qualities (particularly scenic quality and tranquillity) associated with the 'big 'Suffolk skies' of the Suffolk Coast and Heaths AONB. During construction of the onshore cable route, short-term, temporary construction stage effects on the relative tranquillity of the area of the AONB between Thorpeness, Sizewell and Leiston will primarily be experienced over several separate short 2-3 month periods of peak construction activity and not continuously throughout the construction phase. Edges of the AONB near Leiston have more urban development influences near the fringes of the AONB and are less impacted by changes resulting from the onshore cable route construction. <u>Lighting during construction</u>

No.	Relevant Representation	Applicant's Comments
		Construction activities would normally be conducted during Monday to Friday working hours of 7am to 7pm and Saturday working hours of 7am to 1pm. Working hours are not proposed for Sundays or Bank Holidays. Exceptions to these working hours for the works are described in ***section 6.9 Onshore Programme*** of ***Chapter 6 Project Description*** (APP-054), these include: • Fitting out works associated with the onshore substation; • Delivery to the transmission work of abnormal loads that may cause congestion on the local road network; • The testing or commissioning of any electrical plant installed as part of the onshore infrastructure; and • Activity necessary in the instance of an emergency where there is a risk to persons, delivery of electricity or property. An artificial light emissions management plan is required to be included within the Code of Construction Practice (CoCP), based on the ***Outline CoCP*** (APP-578), which must be submitted to the local planning authority for approval prior to commencement of the onshore works. <u>Lighting during operation and maintenance</u> Substation lighting requirements are covered in ***section 6.7.8.14*** of ***Chapter 6 Project Description*** (APP-054). Operational lighting requirements at the onshore substation and National Grid substation would entail: • Security lighting around perimeter fence of compound, to allow CCTV coverage, possibly motion sensitive; • Car park lighting – as per standard car park lighting, possibly motion sensitive; and • Repair / maintenance – task related flood lighting will be necessary. • No additional lighting is proposed along Grove Road or along the additional access roads within the onshore substation location.

No.	Relevant Representation	Applicant's Comments
		An Operational Artificial Light Emissions Management Plan will be developed for the final design for the permanent infrastructure and will be submitted to the local planning authority for approval in accordance with the requirements of the ***draft DCO*** (APP-023). The plan will detail any sensitive receptors and describe the measures to minimise lighting which will be implemented, including lighting requirements, positioning and hours of operation, alongside any monitoring and reporting which might be required.
020	No safety case is provided for the substations. Fire and explosion are not unknown at substations. There is no quantification of the risk including in respect of gas insulated switchgear. The safety and security of all residents and workers within a 30km radius of Sizewell B is secured by an evacuation plan in the event of a nuclear accident and no consideration has been given to the impacts of the proposals on that plan.	The Applicant notes Friston Parish Council's concerns regarding safety. Safety is a key priority for the Applicant, and this has been considered throughout the design, and assessment of impacts, of the Project. ***Section 6.13*** of ***Chapter 6 Project Description*** (APP-060) details the Applicant's response to potential major accidents and disasters. Similarly, significant effects arising from the vulnerability of the proposed development to major accidents or disasters are considered and relevant risks covered in the topic chapters within the ES. The Applicant, as required by Requirement 33 of the ***draft DCO*** (APP-023), will prepare and submit an Emergency Incident Response Plan for approval by the relevant planning authority prior to the commencement of specified works. The requirement for an evacuation plan at Sizewell B relates to the nuclear activities undertaken at that site and no comparison can be drawn to the Applicant's Project. The Health and Safety Executive have been consulted through the pre-application process and did not raise any concerns regarding electrical safety.
021	SPR has not properly addressed the impact of the developments with 5 other major energy projects in the same area, Nautilus, Eurolink, Galloper expansion, Greater Gabbard expansion and Sizewell C. There is a direct link between the proposals and elements of those projects in light of their likely grid connections	The Applicant does not agree that the impact of other major energy projects in the same area has not been properly addressed. A cumulative impact assessment (CIA) has been carried out for each of the considered receptor topics in chapters 7 to 30 (APP 055-078) of the Environmental Statement. The approach used for the CIA follows Planning Inspectorate Advice Note 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17 as summarised in the following:

No.	Relevant Representation	Applicant's Comments
		• **Tier 1** – Projects under construction, permitted or submitted applications; • **Tier 2** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and • **Tier 3** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent. Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to insufficient information available on which to base an assessment, in line with Advice Note 17. In some technical chapters, a more refined tiering system based on the guidance issued by JNCC and Natural England in September 2013[24] is employed. This approach was acknowledged within the Planning Inspectorate's Scoping Opinion (APP-033). The CIA takes into consideration other relevant windfarm projects (including concurrent and sequential construction of each individual East Anglia TWO and East Anglia ONE North project) and industrial activities. Each CIA describes a screening exercise which has been undertaken to screen in potential inter-related impacts and then potential projects to the assessment. Following the guidance in Advice Note 17, the below projects were not considered in the CIA because at the time the Project CIAs were written there was inadequate detail upon which to base any meaningful assessment (with no information on, for example, the project design, and timescales): • Nautilus • EuroLink

[24] JNCC and Natural England (2013). Suggested Tiers for Cumulative Impact Assessment.

No.	Relevant Representation	Applicant's Comments
		• Greater Gabbard Offshore Windfarm Extension • Galloper Offshore Windfarm Extension Each of these projects is nationally significant and therefore will require its own EIA and as part of that will need to undertake a cumulative assessment. Each of the above projects will therefore consider the Project in each of their respective EIAs as they progress through the planning process. Sizewell C New Nuclear Power Station was screened into and assessed in a number of the topic CIAs however due to a lack of available data at the time of writing, some of these had to be conducted qualitatively, when a quantitative assessment would have been desirable, for example for the traffic and transport and air quality impact assessments. The Applicant has committed to carrying out full quantitative CIAs for these topics. The required information to inform this has now been submitted within the Sizewell C New Nuclear Power Station Application. The updated CIA (as appropriate) will be submitted during the Examination of the Project.
022	A number of wind farm projects (including Scottish Power's) have been built with a substantially reduced generating capacity post DCO. SPR has not addressed how any reduction in generating capacity will reduce the scale of the onshore development.	The Applicant acknowledges that some windfarms have been built with a reduced generating capacity compared with that consented within their DCO. However, the Applicant is confident that the final capacity of the Project would lie within the extent of the consent parameters, which will drive the final design of the substation in accordance with the substation design principles. ***Section 5.4*** of ***Chapter 5 EIA Methodology*** (APP-053) explains that the Project is based on a project design envelope (or 'Rochdale Envelope') approach. It is recognised by the Planning Inspectorate Advice Note Nine that, at the time of submitting an application, offshore wind developers may not know the precise nature and arrangement of infrastructure and associated infrastructure that make up the proposed development. In accordance with the accepted industry approach, the impact assessment has been undertaken based on a realistic worst case scenario of predicted impacts, which are set out within each topic chapter.

No.	Relevant Representation	Applicant's Comments
		The maximum sizes of the key onshore substation parameters are provided in ***Table 6.27*** of ***Chapter 6 Project Description*** (APP-054). The project design envelope has a reasoned maximum extent for a number of key parameters. The final design would lie within the maximum extent of the consent sought. Post consent, the Applicant would design the onshore substation to the capacity of electricity required to be converted and to accommodate the technology at that time which is economically available from the supply chain.
023	SPR's funding position is not clearly established in light of the contract for difference regime	In accordance with Requirement 5(2)(h) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 a ***Funding Statement*** (APP-027) has been submitted with the application which demonstrates how the proposals contained within the DCO will be funded.
024	The DCO contains inadequate provisions for securing mitigation of the adverse impacts of the proposals and would grant excessive flexibility to the developer to determine the form of the development after consent	The Applicant disagrees that the DCO contains inadequate provisions for securing mitigation and grants excessive flexibility. The EIA has been undertaken on the basis of a Design/Rochdale Envelope approach whereby the worst case has been assessed and the flexibility afforded post-consent is within that envelope and is therefore not considered to be excessive. Measures identified to mitigate adverse effects are listed in the ***Offshore and Onshore Schedules of Mitigation*** (APP-574 and APP-575) which provide details of how / where these measures are secured. The requirements of the DCO require documents (setting out final design details, construction details, management and mitigation measures, among other things) to be submitted to the relevant local planning authority (or other appropriate body) for approval. A number of outline plans have been submitted as part of the application and most of the documents to be submitted in accordance with the requirements must be based on these outline plans. There is therefore certainly as to what sort of information will be included within these documents. Flexibility is required in projects of this scale due to the length of the consenting process. The requirements of the DCO provide appropriate safeguards to ensure that what is ultimately built is within the confines of what has been assessed and that final details in respect of construction

No.	Relevant Representation	Applicant's Comments
		works, key infrastructure and mitigation measures are approved by the relevant local planning authority.

3.6 Iken Parish Council (RR-012)

Table 10 Applicant's Comments on Iken Parish Council's Relevant Representation

No.	Relevant Representation	Applicant Response
001	Iken Parish Council are concerned about large areas of outstanding and natural beauty being given over for industrial building.	The Applicant notes the concerns raised by the Parish Council with respect to the onshore elements of the Project. The Applicant is responding directly to Relevant Representations from other parish councils along the onshore cable route. National Grid provided a grid connection for the Project in the vicinity of Sizewell and Leiston, Suffolk. ***Section 4.7.5*** of ***Chapter 4 Site Selection and Selection of Alternatives*** (APP-052) describes the Connection and Infrastructure Options Note (CION) process and the work undertaken by the Applicant with National Grid to establish a grid connection location. The CION process considers the total life cost of the connection assessing both the capital and projected operational costs to the onshore network (over a project's lifetime) to determine the most economic and efficient design option.This is a principle driver for the location of landfall and substations and the subsequent onshore cable corridor route. <u>Onshore Cable Route</u> The location of the onshore cable corridor is driven by the location of the onshore substations (as detailed below) and the location of the landfall (***section 4.9.1*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052)). The selection of the onshore cable route has followed a number of key design principles (***Table 29.3*** of ***Chapter 29 Landscape and Visual Impact Assessment (LVIA)*** (APP-077)), where practical, with the following being relevant to LVIA: • Wherever possible to locate the onshore cable route through open agricultural land; • To avoid landscape designations including Registered Parks and Gardens (RPGs); • To avoid areas of woodland and trees as far as possible;

No.	Relevant Representation	Applicant Response
		• To minimise the number of hedgerow crossings and utilise existing gaps in field boundaries if possible; and • To avoid proximity to residential dwellings and settlements. Landscape and visual mitigation is embedded in the selection of a route which minimises effects on nature designations (Sites of Special Scientific Interest (SSSI)/Special Protection Areas (SPA)/Special Areas of Conservation (SAC)/Ramsar/National Nature Reserves (NNR)),minimises the effects on the AONB and physical effects on hedgerows and trees. The onshore cables will be buried along the onshore cable route from landfall to grid connection location to minimise visual impacts. <u>Onshore Substations</u> From the outset, careful siting of the onshore substations and National Grid substation has set out to avoid key areas of sensitivity wherever possible. Embedded mitigation has included: • Careful siting of the onshore substations and National Grid substation to the west and south of existing woodland blocks to gain maximum benefit from existing natural screening; • Careful siting of the onshore substations and National Grid substation in close proximity to the existing overhead lines to reduce additional cabling requirements and to minimise proliferation of infrastructure; and • Siting the onshore substations and National Grid substation in an area of low flood risk (Flood Zone 1) as shown in ***Figure 20.2*** (APP-266). • A Red / Amber / Green (RAG) assessment (***Appendix 4.2*** (APP-443)) was undertaken to score potenital substation locations. These were scored against criteria agreed with statutory consultees. These included archaeology / heritage, ecology, landscape, hydrology and hydrogeology, engineering, community, landscape and visual, property and planning. The RAG assessment did not identify the chosen onshore substation site, rather it was a tool that allowed a

No.	Relevant Representation	Applicant Response
		number of sites to be compared and the most acceptable sites identified at the time to progress to further assessment stages. The culmination of the various work streams as described in ***section 4.9.1.3*** enabled the Applicant to decide that the substation zone northeast of Friston (Zone 7) was the proposed zone to be taken forward. The selected onshore substations location avoids all international, national, county and local landscape designations; including the Suffolk Coast and Heaths Area of Outstanding Natural Beauty. The maximum sizes of the key onshore substation parameters are provided in ***Table 6.27*** of ***Chapter 6 Project Description*** (APP-054). The size of the onshore infrastructure has been determined through the Rochdale Envelope approach (see ***section 3.5 of Chapter 3 Policy and Legislative Context*** (APP-051) which sets out a series of realistic design assumptions from which worst case parameters are drawn for the Project. The project design envelope has a reasoned maximum extent for a number of key parameters. The final design would lie within the maximum extent of the consent. The project design envelope is used to establish the maximum extent to which the Project could impact on the environment. The detailed design of the Project could then vary within this 'envelope' without rendering the assessment inadequate. The physical footprint of the onshore substation is determined by: • Feasible technology (e.g. AC or DC transmission); • The size of infrastructure (e.g. the size of cables, size of building or equipment) which is determined by technology; • The number of each element required (e.g. cables, transformers, etc.); • Minimum spacings required for safe and efficient construction and operation (e.g. cable spacing); • Required stand-offs or crossing requirements (e.g. to other infrastructure or watercourses); • Other constraints (e.g. hard constraints or required buffers from human or environmental constraints), topography and natural features;

No.	Relevant Representation	Applicant Response
		• Construction methodology (e.g. open trench or trenchless techniques) and construction sequencing which is dependent upon constraints; • Access and storage (including spoil); • Drainage; and • Welfare and security. Post consent, the Applicant would detail the final design of the onshore substation to the capacity of electricity required to be converted and to accommodate the state of technology at that time. The final design would lie within the maximum extent of the consent being sought. The final onshore substation design would be developed post-consent. ***Section 3*** of the ***Outline Onshore Substation Design Principles Statement*** summarises the outline design principles that the Applicant will use as the foundation for developing the final Onshore Substation Design Principles post-consent, as part of the discharging of requirements of the ***draft DCO*** (APP-023). These include: • Continued engagement with Parish Councils, local residents and relevant authorities (Suffolk County Council and East Suffolk Council) on design and landscape proposals. • The landscape and building design proposals be subject to design review, in consultation with the relevant local authorities. • Consideration of 'Good Design' in line with the requirements of Overarching National Policy Statement for Energy (NPS-EN-1). • Appropriate building design and materials will be actively sought as part of the procurement process. The ***draft DCO*** (APP-023) states that no stage of the onshore substation works may commence until details of the layout, scale and external appearance of the onshore substation have been submitted to and approved by the relevant planning authority.

No.	Relevant Representation	Applicant Response
002	Our country lanes will not withstand the traffic and maintenance costs will have to be absorbed by local councils.	An ***outline Construction Traffic Management Plan*** (oCTMP) (APP- 586) has been submited as part of the application. This confirms the Applicant'sommittment to the following: *"Condition surveys will be undertaken by the [East Anglia TWO and East Anglia ONE North] contractor both prior to the commencement of construction and subsequently at a point close to the completion of construction to identify existing highway defects and any changes following completion of the proposed East Anglia TWO project [and East Anglia ONE North project]. The methodology and scope of surveys will be agreed between the contractor and SCC prior to commencement of construction.* *Any damage (the scope of which will be agreed with SCC and the contractor) to the highway caused by construction traffic will be repaired by the contractor or a financial contribution made to SCC to cover the cost of remedial works."* Requirement 28 of the ***draft DCO*** (APP-023) provides that onshore works may not commence until for that stage a construction traffic management plan which must be in accordance with the outline construction traffic management plan is approved by the planning authority in consultation with the highways authority.
003	Concern that building on the doorstep of homes will devalue properties	The Applicant notes the Parish Council's concerns regarding property values. The impact of the Project on house prices is not a material consideration. There are many reasons why house prices vary, and, in any event, policy does not seek to prohibit activities which may have such effects. National Policy Statements (NPS) do however offer specific policy support for the assessment of effects that a project may have on residential receptors. The Environmental Statement has provided appropriate impact assessment on residential receptors in line with the overarching NPS in relation to Energy (EN-1), Renewable Energy Infrastructure (EN-3) and Electricity Networks Infrastructure (EN-5). The potential impact on residential receptors has been considered throughout the development of the Project and this is reflected in the site selection process reported in ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052). In addition, the potential effects on residential receptors and residents has been further considered and evaluated in other topic specific chapters, including ***Chapter 19***

No.	Relevant Representation	Applicant Response
		Air Quality (APP-067), ***Chapter 25 Noise and Vibration*** (APP-073), ***Chapter 74 Traffic and Transport*** (APP-074), ***Chapter 27 Human Health*** (APP-075) and ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077). The potential impact on non-residential land uses has been evaluated through ***Chapter 21 Land Use*** (APP-069) and ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078). ***Appendix 21.1*** (APP-499) details the relevant consultation undertaken. It is noted that, in terms of subsection 87(3) of the Planning Act 2008, representations that relate to compensation for compulsory acquisition of land or of an interest in or right over land are matters which the Examining Authority may disregard.
004	That the risk of flooding from the river will render the building of industrial units inefficient.	The applicant notes the Parish Council's concerns regarding flood risk. The Flood Risk Assessment in ***Appendix 20.3*** (APP-494) is in accordance with EN-1 Overarching National Policy Statement (NPS) for Energy, National Planning Policy Framework (NPPF) (Ministry of Housing, Communities & Local Government 2019)[25], Planning Practice Guidance (PPG) for Flood Risk and Coastal Change (Ministry of Housing, Communities & Local Government 2014)[26], and the Environment Agency's Climate Change Allowance guidance (Environment Agency 2016)[27]. The Project has been sequentially located wherever possible. Above ground compounds / structures are located within Flood Zone 1 and therefore are unlikely to be flooded during construction or operation, and subterranean development is located primarily in Flood Zone 1, with some locations in Flood Zone 2 and 3 where it is required to pass under existing watercourses. Subterranean development will only be at potential risk of flooding during the construction phase. Once operational, the flood risk will have been mitigated as the

[25] MCLG (2019) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf
[26] MCLG (2014) Flood Risk and Coastal Change. Available at: https://www.gov.uk/guidance/flood-risk-and-coastal-change
[27] Environment Agency (2016) Flood Risk Assessments: Climate Change Allowances. Available at: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

No.	Relevant Representation	Applicant Response
		cables will be wholly located underground with no interaction with the above ground Flood Zone. Following construction of the onshore cable route there will be no permanent above ground elements along the onshore cable route. Temporary works and haul road surfacing shall be removed and would have no operational use. Existing land drains along the onshore cable route will be reinstated following construction (or rerouted if underneath permanent above-ground developments). Changes in surface water runoff as a result of the increase in impermeable area from the onshore substation and National Grid infrastructure will be attenuated and discharged at a controlled rate, as agreed in consultation with the Lead Local Flood Authority (LLFA) and Environment Agency.

3.7 Knodishall Parish Council (RR-013)

Table 11 Applicant's Comments on Knodishall Parish Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	The local road into Knodishall form Black Heath Corner (B1069) is not suitable for the large volume of HGV's that will use this to enter the haul road, this is already heavily used by traffic going to the local Towns, holiday traffic to the coast and staff from the Sizewell sites, this is extremely heavy at the beginning and end of the working day.	The Applicant notes the Parish Council's concerns regarding the B1069. ***Chapter 26 - Traffic and Transport*** (APP-074) provides an assessment of the traffic and transport effects of the projects. In addition, ***Appendices 26.1 – 26.26*** (APP-527 - APP-552) provide further information on detailed aspects of this assessment. Link 9 comprises of the B1069 from the junction of the A1094 to the south of Knodishall / Coldfair Green. The link is identified by Suffolk County Council (SCC) as a Zone Distributor Route within their Lorry Route Network. Heading north from the A1094, there is sporadic development along the A1094, there are however no footways to link these properties to wider communities and services. It is therefore considered that there would be minimal pedestrian activity along this part of the link and existing journeys would be completed by other modes. ***Table 26.23*** identifies that total traffic flows would be expected to increase by up to 11% and HGV flows by 109%. It is considered that a change in background HGV flows of 109% could have a medium magnitude of effect on a low sensitivity link resulting in a minor adverse impact. ***Section 2.3*** of the ***Outline Travel Plan*** (APP-588) (as secured under the requirements of the ***draft DCO*** (APP-023)) includes details of how employee traffic movements would be controlled within peak hours (during the morning (07:30 – 08:30) and evening (16:30 – 17:30)) to ensure that delays are managed to low magnitude levels. Requirement 28 of the ***draft DCO*** (APP-023) provides that onshore works may not commence until a travel plan which must be in accordance with the outline travel plan is approved by the planning authority in consultation with the highways authority.
002	The permanent and temporary closure of PRoWs there are many footpaths and bridleways that the cable route	The Applicant notes the Parish Council's concerns with respect to temporary and permanent closure of PRoWs north of the village of Friston and along the onshore development area.

No.	Relevant Representation	Applicant's Comments
	crosses, they are heavily used each day temporary routes need to be in place before the work starts.	The Projects will interact with a number of Public Rights of Way (PRoW) within the onshore development area during their construction and operation. PRoW include public roads and pavements, footpaths, bridleways and byways which are formally designated as PRoW by Suffolk County Council. PRoWs are assessed in ***section 30.6.1.4.2.1 Potential Effect on PRoWs and areas of Common Land*** (APP-078)***.*** There are 26 PRoWs for which management measures are required, which will allow access throughout construction and two PRoW at the substation site which will require permanent diversion, however alternative rights of way will be in place prior to commencement of any stage of the authorised development that would affect a PRoW specified in Schedule 3 or 4 of the ***draft DCO*** (APP-023). The ***Outline Public Rights of Way Strategy*** (APP-581) outlines the management principles to be adopted in ensuring that PRoW are managed in a safe and appropriate manner during construction and operation. Precise details for the management of each PRoW, including the specification of any PRoW temporary diversions, during construction works will be agreed with the Local Planning Authority (following consultation with the Local Highway Authority) through approval of the final PRoW Strategy, prior to commencement of any stage of the authorised development that would affect a PRoW specified in Schedule 3 or 4 of the ***draft DCO*** (APP-023). For PRoW which will be permanently stopped up, as set out in Article 10 of the ***draft DCO,*** the existing PRoW cannot be extinguished until the Local Highway Authority confirms that the alternative PRoW has been created to the standard defined in the final PRoW Strategy. For temporary stopping up of PRoW, Article 11 of the ***draft DCO*** requires the alternative right of way to be in place to the reasonable satisfaction of the Local Highway Authority before the existing PRoW can be temporarily stopped up. Timings of closures and diversions are discussed in ***section 3.3*** of the ***Outline Public Rights of Way Strategy*** (APP-581).

No.	Relevant Representation	Applicant's Comments
003	The cumulative impact on the local communities of up to seven energy projects occurring consecutively over 12 to 15 years, this will blight the local area with so many large projects being done at the same time.	The Applicant notes the Parish Council's concerns regarding cumulative impacts of existing and potential future projects. A cumulative impact assessment (CIA) has been carried out for each of the considered receptor topics in Chapters 7 to 30 (APP 055-078) of the Environmental Statement. The approach used for the CIA follows Planning Inspectorate Advice Note 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17 as summarised in the following: • **Tier 1** – Projects under construction, permitted or submitted applications; • **Tier 2** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and • **Tier 3** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent. Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to insufficient information available on which to base an assessment, in line with Advice Note 17. In some technical chapters, a more refined tiering system based on the guidance issued by JNCC and Natural England in September 2013[28] is employed. This approach was acknowledged within the Planning Inspectorate's Scoping Opinion (APP-033).

[28] JNCC and Natural England (2013). Suggested Tiers for Cumulative Impact Assessment.

No.	Relevant Representation	Applicant's Comments
		The CIA takes into consideration other relevant windfarm projects (including concurrent and sequential construction of each individual East Anglia TWO and East Anglia ONE North project) and industrial activities. Each CIA describes a screening exercise which has been undertaken to screen in potential inter-related impacts and then potential projects to the assessment. Sizewell C New Nuclear Power Station was screened into and assessed in a number of the topic CIAs however due to a lack of available data at the time of writing, some of these had to be conducted qualitatively, when a quantitative assessment would have been desirable, for example for the traffic and transport and air quality impact assessments. The Applicant has committed to carrying out full quantitative CIAs for these topics. The required information to inform this has now been submitted within the Sizewell C New Nuclear Power Station Application. The updated CIA (as appropriate) will be submitted during the Examination of the Project.

3.8 Leiston-cum-Sizewell Town Council (RR-004)

Table 12 Applicant's Comments on Leiston-cum-Sizewell Parish Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	I believe that the Initial Assessment of the Principal Issues must acknowledge the very real concerns raised regarding the cumulative impact of this and the other energy NSIP's coming forward on this coast and, at least, make reference to this concern for the SoS to consider.	The Applicant notes the Town Council's concerns. The Applicant considers that the assessment of cumulative impacts of existing and potential future projects is robust. A cumulative impact assessment (CIA) has been carried out for each of the considered receptor topics in Chapters 7 to 30 (APP 055-078) of the Environmental Statement. The approach used for the CIA follows Planning Inspectorate Advice 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17 as summarised in the following: • **Tier 1** – Projects under construction, permitted or submitted applications; • **Tier 2** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and • **Tier 3** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent. Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to insufficient information available on which to base an assessment, in line with Advice Note 17. In some technical chapters, a more refined tiering system based on the guidance issued by JNCC and Natural England in September 2013[29] is employed. This

[29] JNCC and Natural England (2013). Suggested Tiers for Cumulative Impact Assessment.

No.	Relevant Representation	Applicant's Comments
		approach was acknowledged within the Planning Inspectorate's Scoping Opinion (APP-033). The CIA takes into consideration other relevant windfarm projects (including concurrent and sequential construction of each individual East Anglia TWO and East Anglia ONE North project) and industrial activities. Each CIA describes a screening exercise which has been undertaken to screen in potential inter-related impacts and then potential projects to the assessment. The project screening exercise followed The Planning Inspectorate Advice Note 17: Cumulative Effects Assessment and the list of projects to be included was agreed with statutory nature conservation bodies through Expert Topic Group (ETG) meetings and consultation on the Preliminary Environmental Information Report. Sizewell C New Nuclear Power Station was screened into and assessed in a number of the topic cumulative impact assessments however due to a lack of available data at the time of writing, some of these had to be conducted qualitatively, when a quantitative assessment would have been desirable, for example for the traffic and transport and air quality impact assessments. The Applicant has committed to carrying out full quantitative CIAs for these topics. The required information to inform this has now been submitted within the Sizewell C New Nuclear Power Station Application. The updated CIA (as appropriate) will be submitted during the Examination of the Project.
002	The project itself, should it be consented, must be clearly linked to its sister application and conditions be applied to ensure that the cable route is laid and populated for both projects at the same time. The sandy topsoil along the cable route is in one of the driest areas of the country and particular conditions must be applied to ensure dust is effectively controlled continuously throughout construction.	The East Anglia TWO offshore windfarm project and East Anglia ONE North offshore windfarm project are two separate projects (not sister projects) which are the subject of two separate applications. The draft DCOs require each project to commence construction within seven years of the date of the DCOs coming into force. At this stage it is not known whether both Projects would be constructed simultaneously or with a construction gap. Therefore, the onshore topic assessments within each environmental statement include two cumulative

No.	Relevant Representation	Applicant's Comments
		assessment scenarios which are considered to represent the two worst case scenarios for construction of the onshore infrastructure. These are: • Scenario 1 assesses the impacts of the proposed East Anglia TWO project and East Anglia ONE North project being built simultaneously (at the same time); and • Scenario 2 assesses the impacts of the proposed East Anglia TWO project and East Anglia ONE North project being built with a construction gap. In fully assessing the above scenarios within each ES, the Applicant retains the necessary flexibility to adopt the optimum delivery solution for each project which reflects the supply chain constraints and opportunities at the time. Land Use For both Projects, topsoil stockpiles will be controlled to preserve the integrity of the soil for reinstatement following construction of the project and will be managed through the Code of Construction Practice (CoCP) secured through the requirements of the ***draft Development Consent Order*** (DCO) (APP-023). Measures to mitigate the potential release of wind-blown dust from topsoil stockpiles include seeding, covering, use of solid screens or barriers will be applied (see ***section 19.6.1.1.5*** of ***Chapter 19 Air Quality*** (APP-067)).
004	The disruption which will be caused by the crossing west of Knodishall on the B1069 must be quantified and conditions applied to ensure it is not used during peak periods of the daily commute.	The Applicant notes the Town Council's concern regarding potential impacts on the B1069. ***Section 2.3*** of the ***Outline Travel Plan*** (APP-588) (as secured under the requirements of the ***draft DCO*** (APP-023)) includes details of how employee traffic movements would be controlled within peak hours (during the morning (07:30 – 08:30) and evening (16:30 – 17:30)) to ensure that delays are managed to low magnitude levels. Requirement 28 of the ***draft DCO*** provides that onshore works may not commence until for that stage a travel plan which must be in accordance with the

No.	Relevant Representation	Applicant's Comments
		outline travel plan is approved by the planning authority in consultation with the highways authority.
005	The Town Council continues to believe that the construction of such visually intrusive complexes and such large-scale industrial developments where they are now being proposed will always be wholly uncharacteristic to this area and will affect tourism and local amenity on a large scale. This will be addressed by other interested parties. The proposed landfall at Thorpeness and associated cable route will severely affect our community's quality of life and leave a visual blight on the landscape for many years to come. It is unacceptable to place these complexes within the close confines of rural villages like Friston and they should be located in positions better able to accommodate and disguise them. We still believe that any of the sites originally proposed to the west of Leiston in the onshore study area would extend and introduce the industrial development area right out into the countryside in a random fashion blighting a beautiful and agricultural landscape to an unacceptable degree and should not be used.	The Applicant notes the concerns raised by the Town Council with respect to the onshore elements of the Project and acknowledges that the introduction of the Project is a change to Friston and the surrounding area. The Applicant is responding directly to Relevant Representations from other town and parish councils along the onshore cable route. The Applicant is committed to working with Leiston-cum-Sizewell Town Council and other stakeholders to mitigate any significant impacts as much as possible. National Grid provided a grid connection for the Project in the vicinity of Sizewell and Leiston, Suffolk. ***Section 4.7.5*** of ***Chapter 4 Site Selection and Selection of Alternatives*** (APP-052) describes the Connection and Infrastructure Options Note (CION) process and the work undertaken by the Applicant with National Grid to establish a grid connection location. The CION process considers the total life cost of the connection assessing both the capital and projected operational costs to the onshore network (over a project's lifetime) to determine the most economic and efficient design option.This is a principle driver for the location of landfall and substations and the subsequent onshore cable corridor route. <u>Landfall</u> As outlined in ***section 4.8*** of ***Chapter 4 Site Selection and Alternatives*** (APP-052)**,** the initial landfall search area was identified between Sizewell Beach and Thorpeness. The area was then divided into sectors with the following sites taken forward: • North (Sizewell Beach) • Centre (Sizewell Hall / Dower House) • South (Thorpeness). The landfall location area north of Thorpeness was chosen as it avoided interaction with the offshore Coralline Crag and interaction with operation of

No.	Relevant Representation	Applicant's Comments
		Sizewell B Nuclear Power Station cooling water intake / outlet and sea defences. It also allows the co-location of the Projects and reduces the total amount of area directly impacted. It avoids populated areas and those at risk of coastal erosion as far as possible. The export cables would make landfall just to the north of Thorpeness in Suffolk. Assessments of coastal erosion have been undertaken to ensure that the cable ducts will be installed underground onshore with a suitable setback distance to allow for natural coastal erosion (***section 2.12*** of ***Appendix 4.6*** (APP-447)). Trenchless techniques will be used to install the export cable at the landfall, ensuring no impacts on the intertidal zone and also reduce any visual impacts (***section 4.8.3*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052) – the landfall infrastructure is buried underground and therefore will not be visible to the community. The land used for the landfall HDD will be reinstated to its condition prior to construction. <u>Onshore Cable Route</u> The location of the onshore cable corridor is driven by the location of the onshore substation (as detailed below) and the location of the landfall (***section 4.9.1*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052)). The selection of the onshore cable route has followed a number of key design principles (***Table 29.3*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (LVIA) (APP-077)), where practical, with the following being relevant to LVIA: • Wherever possible to locate the onshore cable route through open agricultural land; • To avoid landscape designations including Registered Parks and Gardens (RPGs); • To avoid areas of woodland and trees as far as possible;

No.	Relevant Representation	Applicant's Comments
		• To minimise the number of hedgerow crossings and utilise existing gaps in field boundaries if possible; and • To avoid proximity to residential dwellings and settlements. Landscape and visual mitigation is embedded in the selection of a route which minimises effects on nature designations (SSSI/SPA/SAC/Ramsar/NNR), minimises the effects on the AONB and physical effects on hedgerows and trees. The decision to use underground cable systems for the onshore cables, meaning the cables will not be visible, avoids the requirement to construct new overhead lines. The mitigation embedded in this approach would lead to notably reduced impacts on landscape and visual receptors during the construction phase and no impacts during the operational phase. It also notably reduces the potential for the onshore cable route to contribute to significant cumulative effects. The construction works for the onshore cables would be of a notably smaller scale than those required to install new overhead lines and post construction the onshore cable route would have a negligible impact on landscape and visual receptors as the components for the onshore cables would be buried under ground (***section 29.3.3*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077)). <u>Onshore Substations</u> From the outset, careful siting of the onshore substations and National Grid substation has set out to avoid key areas of sensitivity wherever possible. Embedded mitigation has included: • Careful siting of the onshore substations and National Grid substation to the west and south of existing woodland blocks to gain maximum benefit from existing natural screening; • Careful siting of the onshore substations and National Grid substation in close proximity to the existing overhead lines to reduce additional cabling requirements and to minimise proliferation of infrastructure; and

No.	Relevant Representation	Applicant's Comments
		• Siting the onshore substations and National Grid substation in an area of low flood risk (Flood Zone 1) as shown in ***Figure 20.2*** (APP-266). A Red / Amber / Green (RAG) assessment (***Appendix 4.2*** (APP-443)) was undertaken to score potenital substation locations. These were scored against criteria agreed with statutory consultees. These included archaeology / heritage, ecology, landscape, hydrology and hydrogeology, engineering, community, landscape and visual, property and planning. The RAG assessment did not identify the chosen onshore substation site, rather it was a tool that allowed a number of sites to be compared and the most acceptable sites identified at the time to progress to further assessment stages. The culmination of the various work streams as described in ***section 4.9.1.3*** enabled the Applicant to decide that the substation zone northeast of Friston (Zone 7) was the proposed zone to be taken forward. The selected onshore substation location avoids all international, national, county and local landscape designations. The maximum sizes of the key onshore substation parameters are provided in ***Table 6.27*** of ***Chapter 6 Project Description*** (APP-054). The size of the onshore infrastructure has been determined through the Rochdale Envelope approach (see ***section 3.5 of Chapter 3 Policy and Legislative Context*** (APP-051) which sets out a series of realistic design assumptions from which worst case parameters are drawn for the Project. The project design envelope has a reasoned maximum extent for a number of key parameters. The final design would lie within the maximum extent of the consent. The project design envelope is used to establish the maximum extent to which the Project could impact on the environment. The detailed design of the Project could then vary within this 'envelope' without rendering the assessment inadequate. The physical footprint of the onshore substation is determined by: • Feasible technology (e.g. AC or DC transmission);

No.	Relevant Representation	Applicant's Comments
		• The size of infrastructure (e.g. the size of cables, size of building or equipment) which is determined by technology; • The number of each element required (e.g. cables, transformers, etc.); • Minimum spacings required for safe and efficient construction and operation (e.g. cable spacing); • Required stand-offs or crossing requirements (e.g. to other infrastructure or watercourses); • Other constraints (e.g. hard constraints or required buffers from human or environmental constraints), topography and natural features; • Construction methodology (e.g. open trench or HDD) and construction sequencing which is dependent upon constraints; • Access and storage (including spoil); • Drainage; and • Welfare and security. Post consent, the Applicant would detail the final design of the onshore substation to the capacity of electricity required to be converted and to accommodate the state of technology at that time. The final design would lie within the maximum extent of the consent being sought. The final onshore substation design would be developed post-consent. ***Section 3*** of the ***Outline Onshore Substation Design Principles Statement*** (APP-585) summarises the outline design principles that the Applicant will use as the foundation for developing the final Onshore Substation Design Principles post-consent, as part of the discharging of requirements of the draft DCO. These include: • Continued engagement with Parish Councils, local residents and relevant authorities (Suffolk County Council and East Suffolk Council) on design and landscape proposals.

No.	Relevant Representation	Applicant's Comments
		• The landscape and building design proposals be subject to design review, in consultation with the relevant local authorities. • Consideration of 'Good Design' in line with the requirements of Overarching National Policy Statement for Energy (NPS-EN-1). • Appropriate building design and materials will be actively sought as part of the procurement process. The ***draft DCO*** (APP-023) states that no stage of the onshore substation works may commence until details of the layout, scale and external appearance of the onshore substation have been submitted to and approved by the relevant planning authority. <u>Landscape</u> The selected onshore substation location avoids all international, national, county and local landscape designations. It does not affect any ancient woodland and mitigation measures ensure hedgerow loss which would occur is compensated for in new planting around the onshore substation. The site benefits from existing natural screening provided by Grove Wood and Laurel Covert, as well as other smaller tree blocks and hedgerows surrounding the site. These landscape features provide screening principally from the east and create a wooded backdrop in views from other directions, below which the height of the onshore substation and National Grid substation will be contained and in so doing, contribute to the mitigation of landscape and visual effects (***section 29.3.3*** of ***Chapter 29 LVIA***) (APP-077). The ***OLEMS*** (APP-584) summarises the general landscape and ecology principles and mitigation measures to be adopted during construction and operation of the onshore infrastructure associated with the proposed projects and will provide the framework for the preparation of the final, more detailed Landscape Management Plan and Ecological Management Plan which will be developed post-consent and agreed with the relevant planning authority.

No.	Relevant Representation	Applicant's Comments
006	If this does get approval it must be on the basis that the cable trenches will be filled in as soon as possible as the cable route moves west rather than the whole length laying open for years to come. Do a section at a time and re-instate. That working hours in the compounds and on the haul roads be brought in to 7.30am – 5pm to give local residents and walkers etc. some dust free and noise free recreation time in their gardens and in the countryside	The Applicant notes concerns regarding reinstatement and working hours. As detailed in the ***Outline Code of Construction Practice*** (CoCP) (APP-578), work along the cable route would be limited to short sections (work fronts) at any one time. Topsoil would be stripped from the entire width of the onshore cable route for the length of the work front and stored and capped to minimise wind and water erosion. Subsoil will then be excavated to the appropriate depth and stored separately to the topsoil. On completion of trenching, trenches will be back-filled, and the stored topsoil will be re-distributed over the area of the work front, with the exception of the access road and any associated drainage. As secured under Requirement 22 of the ***draft DCO*** (APP-023) the CoCP must be approved by the local planning authority before any onshore works can commence. Onshore working hours (and exceptions to these) will be specified under the requirements of the ***draft DCO***. Onshore construction activities would normally be conducted during working hours of 7am to 7pm Monday to Friday and 7am to 1pm on Saturdays with no construction works on Sundays or bank holidays, except for essential activities as specified under Requirements 23 and 24 of the ***draft DCO*** (APP-023).These construction working hours will ensure that the length of the construction period is kept to a minimum. The Applicant will seek to sensitively time and minimise the duration of construction activities. The Local Planning Authority will be advised of the likely timetable of works. This timetable will also be shared with affected communities through the local community liaison officer.
007	The A1094, as it passes the junction to the B1069 (Blackheath Corner) should have a 40mph limit imposed. The detailed work done by SPR is noted but there should be another study done to look at changing the whole layout and visibility at this junction to increase safety of local residents further. The carriageway should be widened on B1069 from Blackheath to Knodishall as it will be very intimidating for motorists encountering	The Applicant notes the Town Council's concerns regarding the B1069 layout and visibility. As discussed in ***section 26.4.3.1.5*** of ***Chapter 26 Traffic and Transport*** (APP-074), the Abnormal Indivisible Loads (AILs) study has identified that there is the requirement for localised widening of the junction of the A1094 and the B1069, an outline design for which is provided in ***Appendix 26.5*** (APP-531). This also includes localised vegetation clearance to improve visibility at the junction.

No.	Relevant Representation	Applicant's Comments
	continual (100% increase) HGV traffic. The B1069 from Blackheath to Knodishall is difficult for local drivers when buses or HGV's are encountered. The carriageway must be widened. Other issues include the junction at Friday Street, the problems with abnormal loads and issues on the Sizewell Gap Road which is the only route to and from Sizewell B..	Link 9 comprises of the B1069 from the junction of the A1094 to the south of Knodishall/ Coldfair Green. The link is identified by Suffolk County Council (SCC) as a Zone Distributor Route within their Lorry Route Network. Heading north from the A1094, there is sporadic development along the A1094, there are however no footways to link these properties to wider communities and services. It is therefore considered that there would be minimal pedestrian activity along this part of the link and existing journeys would be completed by other modes. This link is therefore assessed as having low sensitivity. ***Table 26.23*** identifies that total traffic flows would be expected to increase by up to 11% and HGV flows by 109%. It is considered that a change in background HGV flows of 109% could have a medium magnitude of effect on a low sensitivity link resulting in a minor adverse impact. Noting impacts are assessed as no greater than minor adverse for link 9, no mitigation further to that embedded within the design of the Projects are considered necessary. Regarding the junction at Friday Street, road safety is considered in ***Chapter 26 - Traffic and Transport Section 26.5.4 (baseline)*** and assessed in ***section 26.6.1.10.*** Collision clusters have been identified that could potentially be exacerbated by the Project's construction traffic demand. Mitigation has been identified to reduce impacts to non-significant. Regarding Sizewell Gap, a thorough impact assessment has been undertaken and mitigation proposed is appropriate. Appropriate wording is being discussed for a DCO requirement to ensure that existing safety arrangements are maintained. These discussions include SCC and the Office for Nuclear Regulation.

3.9 Middleton cum Fordley Parish Council (RR-014)

Table 13 Applicant's Comments on Middleton cum Fordley Parish Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	We are deeply dismayed, not to say alarmed, that this application is being submitted for consideration with so little reference to, or allowance being made for, the combined impact of some six other projects planned in the very area covered by this DCO. There seems to be no regard being paid to the cumulative disruption that will be caused to the daily life of local residents, in terms of noise, air and light pollution, delays to all forms of traffic (including the emergency services)	The Applicant does not agree that the impact of other major energy projects in the same area has not been properly addressed. Approach to cumulative assessment A cumulative impact assessment (CIA) has been carried out for each of the considered receptor topics in Chapters 7 to 30 (APP 055-078) of the Environmental Statement. The approach used for the CIA follows Planning Inspectorate Advice Note 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17 as summarised in the following: • **Tier 1** – Projects under construction, permitted or submitted applications; • **Tier 2** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and • **Tier 3** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent. Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to insufficient information available on which to base an assessment, in line with Advice Note 17.

No.	Relevant Representation	Applicant's Comments
		In some technical chapters, a more refined tiering system based on the guidance issued by JNCC and Natural England in September 2013[30] is employed. This approach was acknowledged within the Planning Inspectorate's Scoping Opinion (APP-033). The CIA takes into consideration other relevant windfarm projects (including concurrent and sequential construction of each individual East Anglia TWO and East Anglia ONE North project) and industrial activities. Each CIA describes a screening exercise which has been undertaken to include potential inter-related impacts and then potential projects to the assessment. The project screening exercise followed The Planning Inspectorate Advice Note 17: Cumulative Effects Assessment and the list of projects to be included was agreed with statutory nature conservation bodies through Expert Topic Group (ETG) meetings and consultation on the Preliminary Environmental Information Report. Sizewell C New Nuclear Power Station was screened into and assessed in a number of the topic cumulative impact assessments however due to a lack of available data at the time of writing, some of these had to be conducted qualitatively, when a quantitative assessment would have been desirable, for example for the traffic and transport and air quality impact assessments. The Applicant has committed to carrying out full quantitative CIAs for these topics. The required information to inform this has now been submitted within the Sizewell C New Nuclear Power Station application. The updated CIA (as appropriate) will be submitted during the Examination of the Project. Further information regarding the proposed construction scenarios for the Projects is given within each onshore technical chapter. The CIA of the Projects is summarised within each technical chapter and the assessment itself is provided as an appendix to each technical chapter. The worst case scenario of each impact from this CIA is then carried through to the main body of the CIA

[30] JNCC and Natural England (2013). Suggested Tiers for Cumulative Impact Assessment.

No.	Relevant Representation	Applicant's Comments
		which considers other developments which have been screened into the onshore CIA assessment. Traffic and Transport ***Chapter 26 - Traffic and Transport Section 26.7.2.1*** covers cumulative impacts with Sizewell C construction. The worst-case cumulative scenario for the projects is the simultaneous construction of East Anglia ONE North and East Anglia TWO project with Sizewell C. Subsequent to agreeing the cumulative assessment approach with the Traffic and Transport ETG, EDF Energy embarked upon their Stage 4 consultation exercise. The Stage 4 consultation did not contain sufficient information to facilitate a quantitative assessment. Recognising that Stage 3 information released by EDF Energy was out of date, a quantitative cumulative assessment could not be provided for the application as it would have been based upon out of date and incorrect information. The Applicant therefore agreed with the Traffic and Transport ETG to update the cumulative assessment once final details of strategy and vehicle numbers were available from the Sizewell C New Nuclear Power Station DCO application. As the required information to inform this has now been submitted within the Sizewell C New Nuclear Power Station application, the updated cumulative assessment will be submitted during the Examination of the Project once this information is available. Cumulative impacts between the Projects will not result in any impacts of greater significance than those considered in the project alone assessments because the combined construction activity would not increase the magnitude of effect. However, the worst case scenario with regards to traffic would be for simultaneous construction as this would result in the highest peak of traffic numbers (peak numbers are provided in ***Appendix 26.2*** (APP-528)). The same embedded and additional mitigation measures will be applied to the Projects.

No.	Relevant Representation	Applicant's Comments
		Air Quality ***Chapter 19 Air Quality Section 19.7.2*** covers cumulative impacts with Sizewell C construction. The worst-case cumulative scenario for the projects is the simultaneous construction of East Anglia ONE North and East Anglia TWO project with Sizewell C. As above for traffic and transport, the Applicant agreed with the Traffic and Transport ETG to update the cumulative assessment once final details of strategy and vehicle numbers were available from the Sizewell C New Nuclear Power Station application. This application has just been submitted to the Planning Inspectorate and the cumulative assessment will therefore be updated. ***Chapter 19 Air Quality*** (APP-067) provides an assessment of the impacts on air quality arising from the projects. The chapters accompanying appendices, ***Appendices 19.1*** *to* ***19.4*** (APP-490 to APP-493), provide further information on detailed aspects of this assessment. Pre-application consultation with regards to air quality was undertaken via the Air Quality Expert Topic Group (ETG), described within ***Chapter 5 EIA Methodology*** (APP-054). Meetings were held in April 2018, January 2019 and May 2019. The Air Quality ETG stakeholder membership comprised the relevant technical leads from East Suffolk Council, Suffolk County Council and the Environment Agency. The ETG discussed the methodology for the assessment and the assumptions within it. The assessment of air quality presented within ***Chapter 19 Air Quality*** (APP-067) takes account of the relevant legislation (at a national and European level), policy (at a local and national level) and guidance, as per ***section 19.4.1*** of the chapter. Lighting ***Chapter 29 Landscape and Visual Impact Assessment Section 29.7.2*** covers cumulative impacts with Sizewell C construction. The Suffolk Coast and Heaths AONB and its special qualities are assessed for the Projects and Sizewell C.

No.	Relevant Representation	Applicant's Comments
		Special qualities include scenic quality and tranquillity which is associated with the 'big Suffolk skies' of the Suffolk Coast and Heaths AONB. Significant impacts are determined for the character and special qualities of Area A (between Thorpeness, Sizewell and Leiston) and Area C (primarily arising as a result of the contribution of Sizewell C construction in the area near Sizewell Power station) during construction however this will be medium term and temporary (***section 29.7.2.1.2***). No significant impacts are predicted during operation (***section 29.7.2.1.3***) Lighting requirements for the Project are described in ***Chapter 6 Project Description*** (APP-054). Construction activities would normally be conducted during Monday to Friday working hours of 7am to 7pm and Saturday working hours of 7am to 1pm. Working hours are not proposed for Sundays or Bank Holidays. Exceptions to these working hours for the works are described in ***section 6.9 Onshore Programme*** of ***Chapter 6 Project Description*** (APP-054) Onshore cable route lighting requirements are covered in ***section 6.7.3.13 Security and Lighting*** of ***Chapter 6 Project Description*** (APP-054)**.** Along the length of the onshore cable route, no 24-hour lighting is anticipated to be required except that associated with trenchless technique operations and security lighting at the Construction Consolidation Sites. Provision of manned or unmanned 24-hour security may be required within the onshore development area. Aside from the landfall there is a single potential trenchless technique crossing (of the Sandlings Special protection Area (SPA)) and if the alternative option of open-cut trenching is used this would be undertaken within the project working hours. Landfall lighting requirements are covered in ***section 6.6.2 Landfall of Chapter 6 Project Description*** *(APP-054).* It has been assumed that 24-hour lighting would be required during HDD operations. Once onshore HDD drilling has commenced it cannot stop which means that the technique requires 24-hour

No.	Relevant Representation	Applicant's Comments
		working. This includes requirements for health and safety security and lighting; and construction personnel to be on site throughout this period. Substation lighting requirements are covered in ***section 6.7.8.14 Lighting of Chapter 6 Project Description*** (APP-054). As a worst case scenario, it has been assumed that some periods of 24 hour construction will be required, for which task related flood lighting will be necessary. An artificial light emissions management plan is required to be included within the Code of Construction Practice (CoCP), based on the ***Outline CoCP*** (APP-578), which must be submitted to the local planning authority for approval prior to commencement of the onshore works. Substation lighting requirements are covered in ***section 6.7.8.14*** of ***Chapter 6 Project Description*** (APP-054). Operational lighting requirements at the onshore substation site and National Grid substation would entail: • Security lighting around perimeter fence of compound, to allow CCTV coverage, possibly motion sensitive; • Car park lighting – as per standard car park lighting, possibly motion sensitive; and • Repair / maintenance – task related flood lighting will be necessary. • No additional lighting is proposed along Grove Road or along the additional access roads within the substation location. An Operational Artificial Light Emissions Management Plan will be developed for the final design for the permanent infrastructure as part of the CoCP and will be submitted to the local planning authority for approval in accordance with the requirements of the ***draft DCO*** (APP-023). The plan will detail any sensitive receptors and describe the measures to minimise lighting which will be implemented, including lighting requirements, positioning and hours of operation, alongside any monitoring and reporting which might be required. The

No.	Relevant Representation	Applicant's Comments
		Operational Artificial Light Emissions Management Plan will require agreement by the relevant planning authorities. Noise ***Chapter 25 Noise and Vibration Section 25.7.2*** covers cumulative impacts with Sizewell C construction. As for traffic and transport and air quality, the Applicant has agreed with the Traffic and Transport ETG to update the cumulative assessment once final details of strategy and vehicle numbers are available from the Sizewell C New Nuclear Power Station application. The noise and vibration CIA is dependent on this information becoming available. Prior to construction, the Project will produce a CoCP and Construction Traffic Management Plan (CTMP) that will be submitted to the Local Planning Authority for approval to discharge the requirements of the draft DCO. It is anticipated the Sizewell C development will also produce a CTMP prior to construction. It is anticipated that any cumulative impacts from construction activities (plant) with Sizewell C New Nuclear Power Station will be not significant due to distance between the onshore development area and the Sizewell C New Nuclear Power Station development area and mitigation included within the CoCP. An ***Outline CoCP*** (APP-578) has been submitted with the applications for the Projects. When considering the mitigation that will form part of the CoCP and CTMP, residual impacts of increased noise on from off-site construction traffic are predicted to not be significant.
002	Nor is there due recognition of the damage and destruction of the adjacent AONB and SSSI with their fragile environmental and ecological aspects and the inevitable erosion of this unique region's tourism.	The Applicant notes the concerns with respect to the AONB and SSSI and considers that there has been due regard to these statutory designated sites within the Application. There is one statutory designated site overlapping with the part of the coastline where landfall works are expected, namely Leiston-Aldeburgh SSSI. The landfall works comprise trenchless technique drilling activities that will launch from an onshore trenchless technique entry pit temporary working area (located outside the Leiston and Aldeburgh SSSI) out to an exit point out at sea (refer to ***Chapter 6 Project Description*** (APP-054)). The

No.	Relevant Representation	Applicant's Comments
		Project has committed to trenchless techniques at the landfall, which avoids any interaction with Leiston-Aldeburgh SSSI, i.e. no requirement for vehicular beach access. As such, the intertidal features of the Leiston-Aldeburgh SSSI would not be affected directly by landfall construction (***section 22.6.1.1*** of ***Chapter 22 Onshore Ecology*** (APP-070)) According to the Operation Turtle Dove initiative[31], the loss of suitable habitat on the UK breeding grounds and the associated food shortages for turtle doves are the most important factors driving turtle dove declines. In response to possible loss of habitat, an area of 3ha within the onshore development area (see ES ***Figure 23.5*** (APP-288)) has been identified for creation and management of suitable turtle dove feeding habitat during construction. This is an example of key mitigation directed towards SSSI species. Further details and timings of this habitat management would be included in the final Ecological Management Plan, submitted to discharge Requirement 21 of the ***draft DCO*** (APP-023), and details are provided in the ***Outline Landscape and Ecological Management Strategy (OLEMS)*** (APP-584) submitted with this application. The location of the onshore cable corridor is driven by the location of the onshore substations (***section 4.9.1*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052)) and the location of the landfall (***section 4.9.1*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052)). Some example key site selection principles include: • Avoid direct significant impacts to internationally and nationally designated areas (e.g. SACs, SPAs, and SSSIs etc.) where possible; • Minimise significant impacts to the special qualities of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty; and • Minimise interaction with mature woodland; and.

[31] https://www.operationturtledove.org/

No.	Relevant Representation	Applicant's Comments
		• The onshore cables will be installed underground to minimise operational impacts to ecological receptors and landscape and visual impacts. Following the construction phase, habitats will be fully reinstated as far as possible. ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078) provides an assessment of the tourism related effects of the projects. In addition, ***Appendix 30.2 Literature Review -Windfarm Impact on the Tourism Industry*** (APP-571) provides further information on previous studies done on similar types of projects. Tourism impacts associated with the onshore cable route within the Suffolk Coast and Heaths AONB are assessed in ***section 30.6.1.4*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078). The following tourism assets were noted within the vicinity of the onshore development area and impacts are assessed as having negligible significance during construction: • Six accommodation businesses within a 1km radius of the onshore development area; • 30 self-catering cottages within 1km of the onshore development area; and; • 10 visitor attractions. The Applicant has engaged with a wide range of statutory and non-statutory consultees as stated in the ***Consultation Report*** (APP-029), through the Evidence Plan Process (EPP) and creation of ETGs in which due consideration has been given to onshore ecology. As stated in ***Chapter 22 Onshore Ecology*** (APP-070), sections ***22.6*** and ***22.10***, the potential impacts to wildlife have been assessed by way of desk-based assessments and surveys. The assessment concludes minor impacts to species through construction and operation of the Projects. As stated in ***section 22.6.1*** of ***Chapter 22 Onshore Ecology*** (APP-070) there are no non-statutory designated sites within the landfall or substation areas.

No.	Relevant Representation	Applicant's Comments
		Statutory and non-statutory designated sites fall within the onshore cable corridor, potential impacts to which have been fully assessed. Proposed methodologies for the crossing of the onshore cable route across the Sandlings SPA are detailed in ***section 6.7.3.10.1*** of ***Chapter 6 Project Description*** (APP-054). The following surveys, figures and reports were undertaken and provide a robust assessment of local habitats and the potential impacts resulting from the Projects: • ***Chapter 22 Onshore Ecology*** (APP-070); • ***Appendix 22.3*** - ***Extended Phase 1 Habitat Survey*** (Part 1 of 2) (APP-503); • ***Appendix 22.3 - Extended Phase 1 Habitat Survey*** (Part 2 of 2) (APP-504); • ***Figure 22.4a-f - Extended Phase 1 Habitat Survey Results*** (APP-277) • ***Figure 9.14 - Designated Sites*** (APP-128); • ***Figure 22.1 - Designated Sites (Statutory)*** (APP-274); • ***Figure 22.2 - Designated Sites*** (Non-statutory) (APP-275); • ***Appendix 28.4 - Landscape Assessment*** (APP-559); and • ***Outline Landscape and Ecological Management Strategy*** (APP-584)
003	With several further windfarm developments, their associated National Grid infrastructures, the NG Nautilus project and the proposed new twin nuclear power station complex at Sizewell (SZC) all envisaged to overlap in part or even run consecutively, the various specific transport movement figures quoted in this particular application are all but meaningless. And the effect, not only to people living on or around the HGV routes shown, but also the	The Applicant notes Middleton-cum-Fordley Parish Council's concerns regarding the A12. It is the Applicant's view that the mitigation measures proposed for traffic and HGV management are appropriate, and the Applicant is currently in discussion with Suffolk County Council through the Statement of Common Ground process to agree the mitigation to be put in place. The strategy for access applies a hierarchical approach (informed by the Suffolk County Council HGV route hierarchy) to selecting routes and where possible,

No.	Relevant Representation	Applicant's Comments
	delays to deliveries of the constructors' own materials, could well be devastating. The lack of "joined-up thinking" in this process is spectacular at all levels. Back in the 1980s, a new road, providing direct access to Sizewell from the A12, was planned to protect local communities from the problems of construction of Sizewell B. But it never happened. With all the current proposals, the need for that very road, taking its original path (D2 as it was then labelled; EDF's misguidedly dismissed route W today), is now overwhelming. We beg to question whether the piecemeal construction of onshore facilities for each new windfarm is really necessary or appropriate.	seeks to reduce the impact of HGV traffic upon the most sensitive communities. The access strategy includes the following commitments: • All HGV construction traffic would be required to travel via the A1094 or B1122 from the A12, no HGV traffic would be permitted to travel via alternative routes, such as the B1121 or B1119. • No HGV construction traffic would be permitted to travel via Leiston or Coldfair Green / Knodishall. • No HGV construction traffic would be permitted to travel via the B1121 through Friston, Sternfield or Benhall-Green. • No HGV construction traffic would be permitted to travel via the B1353 towards Thorpeness. • To avoid the requirement for HGVs to travel via the B1122 from B1353 towards Thorpeness, all HGV construction traffic for the landfall would access the landfall location via Sizewell Gap. Vehicles would then travel south on a temporary haul road to the landfall location. • All HGV traffic to the onshore substation and National Grid Substation to avoid travelling via Friston or Sternfield by accessing from the B1069 (south of Knodishall/ Coldfair Green) and travelling along a temporary haul road and crossing over Grove Road. These commitments are secured in the ***Outline CTMP*** (APP-586). The CTMP requires to be submitted to the local planning authority for approval in consultation with the relevant highway authority. This must be based on the outline CTMP, under Requirement 28 of the ***draft DCO*** (APP-023) it must be implemented as approved. ***Chapter 26 - Traffic and Transport Section 26.7.2.1*** covers cumulative impacts with Sizewell C construction.

No.	Relevant Representation	Applicant's Comments
		The worst-case cumulative scenario for the projects is the simultaneous construction of the Projects with Sizewell C. Subsequent to agreeing the cumulative assessment approach at the Traffic and Transport Expert Topic Group (ETG), EDF Energy embarked upon their Stage 4 consultation exercise. The Stage 4 consultation did not contain sufficient information to facilitate a quantitative assessment with Sizewell C. Recognising that Stage 3 information released by EDF Energy was out of date, a quantitative cumulative assessment could not be provided for the application as it would have been based upon out of date and incorrect information. The Applicant has therefore agreed with the Traffic and Transport ETG to update the cumulative assessment as the final details of strategy and vehicle numbers are now available from EDF Energy. The Outline CTMP will be updated in agreement with the local planning authority and a final CTMP will be submitted for approval at post-consent under Requirement 28 of the ***Draft DCO***.
004	The Dutch solution of each farm being joined by an offshore Ring Main, and landfall thus limited to fewer, or even singular, locations makes absolute sense, especially when the East Suffolk coastline's beauty and fragility is considered	The location of the landfall (***section 4.8*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052)) is driven by the location of the offshore windfarm site and grid connection location (***section 4.7*** of ***Chapter 4 Site Selection and Assessment of Alternatives***). ***Section 4.7.5*** describes the Connection and Infrastructure Options Note (CION) process and the work undertaken by the Applicants with National Grid to establish a grid connection location. This is a principle driver for the location of landfall and substations and the subsequent onshore cable corridor route**.** The timetable for the significant reform required to establish a regulatory and technical framework for an offshore ring main could take many years. The Applicant is currently in the consenting process and must work within the constraints of the current regulatory framework in order to deliver the project. At present there is no appointed coordinator for offshore wind grid development nor any reference to coordinated offshore development in the National Policy Statement (EN-5) for Electricity Networks. An offshore ring main is not a

No.	Relevant Representation	Applicant's Comments
		reasonable alternative that could have been considered as an alternative to the transmission infrastructure proposed within the Application. The ES considers alternatives in ***Chapter 4 Site Selection and Assessment of Alternatives*** however the offshore ring main is not considered as an alternative within the chapter as it would not be a reasonable alternative.
005	With existing onshore windfarm infrastructure already existent at nearby Bawdsey, what prevents the new farms' supply being added to that? Or select an area already spoiled, for example the brown field sites alongside the rail tracks at Manningtree?	The Applicant must work within the current regulatory framework in order to deliver the Project. The National Policy Statement (EN-3) for Renewable Energy Infrastructure states at paragraph 2.6.34 that: "Applicants for consent for offshore wind farms will have to work within the regulatory regime for offshore transmission networks established by Ofgem. Under the regime offshore transmission will be a licensed activity regulated by Ofgem." National Grid owns the England and Wales electricity transmission network. Part of the assessment in determining grid connection location is the Connection and Infrastructure Options Note (CION) Process, which National Grid is under a statutory duty to undertake. The CION process is the mechanism used by National Grid to evaluate the potential options for connecting to the transmission system. ***Section 4.7.5*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052) provides an overview of the CION process in respect of the grid connection location and describes how, in 2010, Bramford was the most economic and efficient connection point for the East Anglia ONE, East Anglia TWO and East Anglia THREE projects. In 2016, SPR identified the proposed East Anglia TWO and East Anglia ONE North projects as the next projects to be brought forward for development consent. SPR engaged with National Grid in early 2017 to determine connection options for the proposed East Anglia TWO and East Anglia ONE North projects based on contracted background at that time and reflecting the projects' timescales and reduced capacities. National Grid advised that due to the changing contracted background, connection capacity could be available in the Sizewell / Leiston area. The CION process was subsequently triggered and concluded that the most economic and efficient connections for East Anglia TWO and East Anglia

No.	Relevant Representation	Applicant's Comments
		ONE North, while considering environmental and programme implications, would be into the circuits in or around Leiston (***section 4.7.5*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052)). The location of the proposed substations and National Grid infrastructure was offered to SPR by National Grid for a grid connection in the vicinity of Sizewell and Leiston. This process is described in detail in ***section 4.7.5*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052). ***Table 4.3*** provides a summary of the optioneering within this process. The initial onshore study area encompassed an area within a 1km buffer of the overhead line route into Sizewell. This was to ensure that any potential options, at a less economic and efficient distance from the overhead line, would still be captured and considered. ***Section 4.9.1.2.4*** describes the subsequent review and refinement of this initial study area. Within the onshore study area, seven zones were identified as potential substation sites, based on available space to accommodate the required projects (***section 4.9.1.3***). Additionally, a target buffer of 250m from residential properties was applied as a proxy for minimising disturbance to residents. The seven potential substation zones were scored using a Red / Amber / Green (RAG) assessment (***Appendix 4.2 RAG Assessment for Onshore Substations Site Selection in the Sizewell Area*** (APP-443)) against criteria agreed with statutory consultees. These included archaeology / heritage, ecology, landscape, hydrology and hydrogeology, engineering, community, landscape and visual, property and planning. The RAG assessment did not identify the chosen onshore substation site, rather it was a tool that allowed a number of sites to be compared and the most acceptable sites identified at the time to progress to further assessment stages. The culmination of the various work streams as described in ***section 4.9.1.3*** enabled the Applicants to decide that the substation zone northeast of Friston (Zone 7) as the proposed zone to be taken forward.

No.	Relevant Representation	Applicant's Comments
		Phase 3.5 Consultation (***section 4.9.1.6*** of ***Chapter 4 Site Selection and Assessment of Alternatives***) enabled the Applicant to engage with local communities and consultees on the opportunity to consider an alternative substation site at Broom Covert, Sizewell (Zone 8) in parallel with proposals for a substation site at Grove Wood, Friston (Zone 7). As set out in ***section 4.9.1.6.***, there are significant differences between the proposed onshore substations sites Grove Wood, Friston and Broom Covert, Sizewell: • Presence of Broom Covert, Sizewell within the Suffolk Coast and Heaths AONB, contrary to NPS EN-1 and NPPF policy, presenting a significant consenting risk to the project. A suitable alternative outside the Suffolk Coast and Heaths AONB exists (Grove Wood, Friston) and therefore exceptional circumstances do not exist to site within the AONB. • The Broom Covert, Sizewell site is located within the AONB (which is contrary to the NPS EN-1 policy) and siting in the Broom Covert, Sizewell site is likely to result in significant effects on some of the special qualities of the AONB; • Significant risk of Compulsory Acquisition Powers not being available to SPR at the Broom Covert, Sizewell site (due to the proximity to Sizewell B Nuclear Power Station and Galloper Offshore Wind Farm statutory undertaker land and the use of the site as reptile mitigation land for the proposed Sizewell C New Nuclear Power Station development); • The need to secure replacement reptile mitigation land for the Sizewell C New Nuclear Power Station development on a voluntary basis, without the ability to secure land by compulsory acquisition (as land would need to be secured prior to SPR's compulsory acquisition rights being made available to allow its use by EDF); and

No.	Relevant Representation	Applicant's Comments
		• Additional costs incurred in laying an additional 6km cable length to Grove Wood, Friston. The Broom Covert, Sizewell site presented significant policy challenges toward gaining consent which outweighed the increased cost of further cabling to the Grove Wood, Friston site. It is the Applicants' position, in accordance with policies set out in NPS EN-1 and based on extensive advice and stakeholder engagement that the Grove Wood, Friston site offers the most appropriate option for the siting of onshore substations and National Grid infrastructure (***section 4.9.1.7***). .

3.10 Reydon Parish Council (RR-015)

Table 14 Applicant's Comments on Reydon Parish Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	Reydon Parish Council is totally in favour of renewable energy, but want to see further consideration given to the proposed size of the turbines off this heritage coast and the impact they will have on the Suffolk Coast Heaths and AONB.	The Applicant notes the Parish Council's support for renewable energy and acknowledges concerns regarding impacts on the Suffolk Coast and Heaths AONB. Size of Wind Turbines ***Section 5.4*** of ***Chapter 5 EIA Methodology*** (APP-053) explains that the Project is based on a project design envelope (or 'Rochdale Envelope') approach. It is recognised by the Planning Inspectorate Advice Note Nine that, at the time of submitting an application, offshore wind developers may not know the precise nature and arrangement of infrastructure and associated infrastructure that make up the proposed development. In accordance with the accepted industry approach, the impact assessment has been undertaken based on a realistic worst case scenario of predicted impacts, which are set out within each topic chapter. The maximum parameters of the wind turbines are provided in ***Table 6.2*** of ***Chapter 6 Project Description*** (APP-054). The project design envelope has a reasoned maximum extent for a number of key parameters. The final design would lie within the maximum extent of the consent sought. Post consent, the Applicant would select wind turbine models depending on the technology at that time which is economically available from the supply chain. Potential Impacts on the AONB ***Appendix 28.8*** (APP-563) presents an assessment of the potential locations and duration over which the projects would be visible from the coast. The closest viewpoints (32.5km from the East Anglia TWO windfarm site and 35.7km from the East Anglia ONE North windfarm site) represent the worst case likelihood of visibility for the wind turbines. At these locations, the East Anglia

No.	Relevant Representation	Applicant's Comments
		TWO wind turbines are likely to only be visible to the public 33% of the time (under excellent visibility conditions) and the East Anglia ONE North wind turbines are likely to only be visible to the public 26% of the time (under excellent visibility conditions). As receptors move further from the windfarm sites, the percentage likelihood of wind turbine visibility decreases. For example, at the furthest viewpoint surveyed (53.5km from the windfarm sites), likelihood of visibility for the wind turbines is only 15% for East Anglia TWO and 9% for East Anglia ONE North (under excellent visibility conditions). Potential impacts on the Suffolk Coast and Heaths AONB and its special qualities (including tranquillity) and natural beauty indicators (including relative wildness) are assessed in ***section 29.6.1.2*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077) and ***Appendix 29.3 Landscape Assessment*** (APP-567). The AONB's special qualities and natural beauty indicators are also considered in ***section 28.7.3.2*** of ***Chapter 28 Seascape Landscape and Visual Impact Assessment*** and ***Appendix 28.4 Landscape Assessment*** (APP-559). <u>Offshore Infrastructure</u> Potential impacts of the East Anglia TWO windfarm site on relative tranquillity and relative wildness with regards to seascape are assessed in ***Appendix 28.4 Landscape Assessment*** and summarised in ***section 28.7.3.2.3*** of ***Chapter 28 Seascape Landscape and Visual Impact Assessment***. No significant effects are predicted for Relative Tranquillity. Significant effects are predicted for relative wildness only in respect of the open and expansive views offshore. This is a particular effect on one aspect of relative wildness that derives from changes to views from the AONB. From the southern parts of the AONB coastline, there is little or no visibility of the East Anglia ONE North windfarm site, therefore the potential for additional cumulative effects on the special qualities of the AONB can largely be

No.	Relevant Representation	Applicant's Comments
		discounted, with the effect resulting entirely from the presence of the offshore infrastructure. 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 result in relatively minimal 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.
002	The PC also have concerns on the way the energy is to be brought on shore. The PC objects to the location of the proposed substation and associated development at Friston due to the scale of the impact on the community and environment and understand that there are alternatives for example - off shore hubs and ringmains.	The Applicant acknowledges the Parish Council's concern regarding the transmission of energy from the windfarm site to the onshore substation and notes the concern regarding the location of the substation and onshore infrastructure. Repsonses regarding these points are detailed below. National Grid provided a grid connection for the Project in the vicinity of Sizewell and Leiston, Suffolk. ***Section 4.7.5*** of ***Chapter 4 Site Selection and Selection of Alternatives*** (APP-052) describes the Connection and Infrastructure Options Note (CION) process and the work undertaken by the Applicant with National Grid to establish a grid connection location. The CION process considers the total life cost of the connection assessing both the capital and projected operational costs to the onshore network (over a project's lifetime) to determine the most economic and efficient design option.This is a principle driver for the location of landfall and substations and the subsequent onshore cable corridor route. <u>Onshore Cable Route</u> The location of the onshore cable corridor is driven by the location of the onshore substations (as detailed below) and the location of the landfall (***section 4.9.1*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052)).

No.	Relevant Representation	Applicant's Comments
		The selection of the onshore cable route has followed a number of key design principles (***Table 29.3*** of ***Chapter 29 Landscape and Visual Impact Assessment (LVIA)*** (APP-077)), where practical, with the following being relevant to LVIA: • Wherever possible to locate the onshore cable route through open agricultural land; • To avoid landscape designations including Registered Parks and Gardens (RPGs); • To avoid areas of woodland and trees as far as possible; • To minimise the number of hedgerow crossings and utilise existing gaps in field boundaries if possible; and • To avoid proximity to residential dwellings and settlements. Landscape and visual mitigation is embedded in the selection of a route which minimises effects on nature designations (SSSI/SPA/SAC/Ramsar/NNR), minimises the effects on the AONB and physical effects on hedgerows and trees. <u>Onshore Substations</u> From the outset, careful siting of the onshore substations and National Grid substation has set out to avoid key areas of sensitivity wherever possible. Embedded mitigation has included: • Careful siting of the onshore substations and National Grid substation to the west and south of existing woodland blocks to gain maximum benefit from existing natural screening; • Careful siting of the onshore substations and National Grid substation in close proximity to the existing overhead lines to reduce additional cabling requirements and to minimise proliferation of infrastructure; and

No.	Relevant Representation	Applicant's Comments
		• Siting the onshore substations and National Grid substation in an area of low flood risk (Flood Zone 1) as shown in ***Figure 20.2*** (APP-266).. A Red / Amber / Green (RAG) assessment (***Appendix 4.2 RAG Assessment for Onshore Substations Site Selection in the Sizewell Area*** (APP-443)) was undertaken to score potenital substation locations. These were scored against criteria agreed with statutory consultees. These included archaeology / heritage, ecology, landscape, hydrology and hydrogeology, engineering, community, landscape and visual, property and planning. The RAG assessment did not identify the chosen onshore substation site, rather it was a tool that allowed a number of sites to be compared and the most acceptable sites identified at the time to progress to further assessment stages. The culmination of the various work streams as described in ***section 4.9.1.3*** enabled the Applicant to decide that the substation zone northeast of Friston (Zone 7) was to be taken forward. The selected onshore substation location avoids all international, national, county and local landscape designations. The maximum sizes of the key onshore substation parameters are provided in ***Table 6.27*** of ***Chapter 6 Project Description*** (APP-054). The size of the onshore infrastructure has been determined through the Rochdale Envelope approach (see ***section 3.5 of Chapter 3 Policy and Legislative Context*** (APP-051) which sets out a series of realistic design assumptions from which worst case parameters are drawn for the proposed projects. The project design envelope has a reasoned maximum extent for a number of key parameters. The final design would lie within the maximum extent of the consent. The project design envelope is used to establish the maximum extent to which the Project could impact on the environment. The detailed design of the Project could then vary within this 'envelope' without rendering the assessment inadequate. The physical footprint of the onshore substation is determined by: • Feasible technology (e.g. AC or DC transmission);

No.	Relevant Representation	Applicant's Comments
		• The size of infrastructure (e.g. the size of cables, size of building or equipment) which is determined by technology; • The number of each element required (e.g. cables, transformers, etc.); • Minimum spacings required for safe and efficient construction and operation (e.g. cable spacing); • Required stand-offs or crossing requirements (e.g. to other infrastructure or watercourses); • Other constraints (e.g. hard constraints or required buffers from human or environmental constraints), topography and natural features; • Construction methodology (e.g. open trench or HDD) and construction sequencing which is dependent upon constraints; • Access and storage (including spoil); • Drainage; and • Welfare and security. Post consent, the Applicant would detail the final design of the onshore substations to the capacity of electricity required to be converted and to accommodate the state of technology at that time. The final design would lie within the maximum extent of the consent being sought. The final onshore substation design would be developed post-consent. ***Section 3*** of the ***Outline Onshore Substation Design Principles Statement*** summarises the outline design principles that the Applicant will use as the foundation for developing the final Onshore Substation Design Principles post-consent, as part of the discharging of requirements of the draft DCO. These include: • Continued engagement with Parish Councils, local residents and relevant authorities (Suffolk County Council and East Suffolk Council) on design and landscape proposals.

No.	Relevant Representation	Applicant's Comments
		• The landscape and building design proposals be subject to design review, in consultation with the relevant local authorities. • Consideration of 'Good Design' in line with the requirements of Overarching National Policy Statement for Energy (NPS-EN-1). • Appropriate building design and materials will be actively sought as part of the procurement process. The ***draft DCO*** (APP-023) states that no stage of the onshore substation works may commence until details of the layout, scale and external appearance of the onshore substation have been submitted to and approved by the relevant planning authority. <u>Offshore Ring Main</u> The timetable for the significant reform required to establish a regulatory and technical framework for an offshore ring main could take many years. The Applicant is currently in the consenting process and must work within the constraints of the current regulatory framework in order to deliver the project. At present there is no appointed coordinator for offshore wind grid development nor any reference to coordinated offshore development in the National Policy Statement (EN-5) for Electricity Networks. An offshore ring main is not a reasonable alternative that could have been considered as an alternative to the transmission infrastructure proposed within the Application The ES considers alternatives in ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052) however the offshore ring main is not considered as an alternative within the chapter as it would not be a reasonable alternative.
003	The PC are also very concerned on the cumulative impacts resulting from the uncoordinated development of these and other energy projects along the Suffolk Coast. In all regards Reydon PC agree with Suffolk County Council and Natural England's objections.	The Applicant acknowledges the Parish Councils concerns. The Applicant considers that the assessment of cumulative impacts of existing and potential future projects is robust. A cumulative impact assessment (CIA) has been carried out for each of the considered receptor topics in Chapters 7 to 30 (APP 055-078) of the

No.	Relevant Representation	Applicant's Comments
		Environmental Statement. The approach used for the CIA follows Planning Inspectorate Advice Note 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17 as summarised in the following: • **Tier 1** – Projects under construction, permitted or submitted applications; • **Tier 2** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and • **Tier 3** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent. Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to insufficient information available on which to base an assessment, in line with Advice Note 17. In some technical chapters, a more refined tiering system based on the guidance issued by JNCC and Natural England in September 2013[32] is employed. This approach was acknowledged within the Planning Inspectorate's Scoping Opinion (APP-033). The CIA takes into consideration other relevant windfarm projects (including concurrent and sequential construction of each individual East Anglia TWO and East Anglia ONE North project) and industrial activities. Each CIA describes a screening exercise which has been undertaken to screen in potential inter-related impacts and then potential projects to the assessment.

[32] JNCC and Natural England (2013). Suggested Tiers for Cumulative Impact Assessment.

No.	Relevant Representation	Applicant's Comments
		Sizewell C New Nuclear Power Station was screened into and assessed in a number of the topic CIAs however due to a lack of available data at the time of writing, some of these had to be conducted qualitatively, when a quantitative assessment would have been desirable, for example for the traffic and transport and air quality impact assessments. The Applicant has committed to carrying out full quantitative CIAs for these topics. The required information to inform this has now been submitted within the Sizewell C New Nuclear Power Station Application. The updated CIA (as appropriate) will be submitted during the Examination of the Project.

3.11 Snape Parish Council (RR-016)

Table 15 Applicant's Comments on Snape Parish Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	Snape Parish Council (SPC) SPC wishes to register as an interested party in the Development Consent Order (DCO) Process. Based on the local consultation process thus far and the Stage 4 consultation document and recent DCO submission, the PC must reflect overwhelming opposition of residents to the current proposals. That includes both the construction of the substations as outlined and the traffic management plans.	The Applicant notes the comments from Snape Parish Council with respect to the onshore elements of the Project. The Applicant is committed to working with Snape Parish Council and other stakeholders to mitigate any significant impacts as much as possible.
002	The PC does not feel that consultation has been either adequate or fair given the potential impacts and the quality of the information, research and calculation contained within the consultation document nor the DCO submission.	The Applicant notes the Parish Council's concerns regarding consultation process for the Project. Consultation is recognised by the Applicant as being a key feature of the Environmental Impact Assessment (EIA) process, and continues throughout the lifecycle of a project, from its initial stages through to consent and post-consent. The Applicant considers the consultation undertaken so far to be adequate and robust. Consultation has been undertaken through the informal and formal pre-application stages, including the formal submission of the Scoping Report in November 2017 and the Preliminary Environmental Information Report (PEIR) in February 2019. The Applicant produced a Statement of Community Consultation (SoCC) in March 2018. The SoCC explained how the Applicant intended to consult with local communities on the proposed Project as required under the Planning Act 2008. It detailed the opportunities available for local communities to come and meet the Applicant to ask questions and to comment on the plans for the project. The SoCC also gave notification of the intention to hold Public Information Days (PIDs) and gave an indication of when these would take place. The Project SoCC (published 6th March 2018) is found in ***Appendix 3.2*** of the ***Consultation***

No.	Relevant Representation	Applicant's Comments

		Report (APP-029). The Applicant undertook statutory consultation of the SoCC as described in ***section 3.4.2*** of the ***Consultation Report***. The SoCC was then publicised in local East Anglian newspapers (Eastern Daily Press, East Anglian Daily Times, Ipswich Star and Fishing News) on two separate occasions and dates as set out in ***section 3.4.3***. The SoCC was later updated to introduce project developments and an additional phase of consultation, Phase 3.5, in order to engage with local communities (section 3.5).
		
		A summary of the range of measures adopted during consultation are presented below; agreed through the SoCC (as updated), and summarised in the ***Consultation Report*** (APP-029):
		
		• PIDs held at locations adjacent to the onshore study area, which subsequently became the refined development area as the consultation progressed. PIDs were held on the following dates:
		  ○ Phase 1 held between 30th October and 2nd November 2017 in Southwold, Leiston, Lowestoft and Orford (***section 4.3.2.2***);
		  ○ Phase 2 held between 17th and 25th March 2018 in Lowestoft, Southwold, Leiston, Thorpeness, Aldeburgh and Orford (***section 5.2.2.2***)
		  ○ Phase 3 held between 28th June and 28th July in Orford, Friston, Leiston, Southwold, Lowestoft, Aldeburgh and Thorpeness (***section 6.2.2.2);*** and
		  ○ Phase 3.5 held between 9th October 2018 and 15th October 2018 (***section 7.2.1.2***).
		• Phase 1 informal consultation (October / November 2017) with statutory consultees and the public designed to introduce the Project to local communities and to inform on the approach to Environmental Impact Assessment (EIA), whilst also providing an opportunity for feedback to be provided to the Applicant. At this stage there could be no formal consultation because the onshore infrastructure locations were only

No.	Relevant Representation	Applicant's Comments
		indicative areas i.e. 'areas of search' forming the 'Onshore Study Area'. It was communicated that this would be refined and form part of the consultation process; ; • Between Phase 1 and Phase 2 the Planning Inspectorate (PINS) consulted with organisations on both the onshore and offshore works for the proposed Project. A formal Scoping Opinion (APP-033) was provided by the Planning Inspectorate in December 2017; • Phase 2 formal consultation (March / April 2018) with statutory consultees and the public in order to provide further information on the indicative onshore development area and substation zones for the intended onshore electrical infrastructure and to obtain comments on viewpoints selected to assess the visual impacts of the offshore wind turbines. The Applicant met with Friston Parish Council in February 2019 and were awarded a 20 minute allocation at a Council meeting on 5th March 2019. This was an appropriate time to consult on potential issues as there was sufficient information available at this stage. This was followed up with further consultation at Phase 3 and Phase 3.5 regarding the onshore substation locations; • Phase 3 formal consultation (May to August 2018) with statutory consultees and the public in order to show the Indicative Onshore Development Area for onshore infrastructure, including the proposed substation location north of Friston (known as Grove Wood) and to update consultees on general proposed development plans; • Phase 3.5 formal consultation (September to November 2018 and including four community engagement events held in October 2018) with statutory consultees and the public to consult upon an alternative substation location between Leiston and Sizewell known as Broom Covert, as well as the Grove Wood site at Friston. The alternative substation location would make use of land which is part of mitigation measures for the proposed Sizewell C power station. The Applicant

No.	Relevant Representation	Applicant's Comments
		therefore also consulted on alternative mitigation land areas which could be used for the Sizewell C development. Consultation was also undertaken with communities where traffic and transport modifications may be required. Options to ensure appropriate connection to the surface water drainage network were also consulted on; • Phase 4 formal consultation (February / March 2019) with statutory consultees and the public (including publication of the PEIR and Section 42 consultation with statutory consultees) in order to consult upon the PEIR for the Project. This included details of the preliminary environmental assessment findings, a description of the proposals and baseline environmental information collected (to date). The PEIR identified the potential impacts of the Project including cumulative impacts as relevant, and where necessary has identified possible mitigation measures to reduce, prevent or offset these. The PEIR was consulted upon directly with statutory consultees and prescribed consultation bodies, Local Planning Authorities and persons with an interest in the land. The Applicant also consulted with local communities, the wider public and other organisations on the PEIR; • Public Information Day summary reports shared with all registered participants, key local and community stakeholders, and on the Project website for Phase 2, Phase 3 and Phase 4 community engagement events and a Decision Briefing Note following Phase 3.5. • Parish Council briefings (including with Snape Parish Council); • Direct discussions with landowners: • The Applicant and the Applicant's land agents have met affected landowners and / or their appointed land agents. A number of preferences for the routeing of the onshore cable route have been put forward by those affected by the proposed onshore development area

No.	Relevant Representation	Applicant's Comments
		and a number of those suggestions have been incorporated into the proposed onshore development area boundary; • The Applicant has engaged with landowners regarding survey access through consultation meetings. Letters were sent to all affected parties offering to meet to discuss the project proposals; • Bi-Annual Newsletters distributed throughout the onshore substation(s) site selection study area once the area had been defined. The Autumn/Winter 2017/18 newsletter was distributed prior to Phase 1 consultation when the onshore study area was east of the Aldeburgh Road but the Summer 2018 issue was distributed to the wider onshore development area and all copies after that (once the study area was extended west to avoid the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB)). This lag in distribution is acknowledged by the Applicant however the extent of coverage is dependent on project developments and meaningful project information as and when it becomes available.; • Provision of a dedicated areas on the existing SPR website for the Project; and • Regular and targeted discussion with regulators and other stakeholder bodies through various means including Expert Topic Group (ETG) meetings (Groups comprising experts on a particular topic, formed to discuss details of data requirements, and which report to the Steering Group); and • Dedicated stakeholder team, project e-mail addresses and Freepost address to assist local communities in contacting the Applicants
003	The location of the site, potential impact on the environment and road network, levels of noise and air pollution, lack of consideration of the direct impact of the	The Applicant notes the concerns raised by Snape Parish Council with respect to various onshore elements of the Project.

No.	Relevant Representation	Applicant's Comments
	project on Snape generally, and specifically around traffic, undermine the proposals as outlined in the project documentation and application for DCO.	***Chapter 26 - Traffic and Transport*** (APP-074) provides an assessment of the traffic and transport effects of the projects. In addition, ***Appendices 26.1 – 26.26*** (APP-527 - APP-552) provide further information on detailed aspects of this assessment. The impact assessment noted potentially significant amenity impacts upon pedestrians trying to access services within Snape. A review of the baseline highway conditions identified a number of gaps in footway provision and therefore, where possible, a series of footway improvements are proposed within the existing Local Highway Authority boundary: • Provision of a pedestrian dropped crossing and short section of footway outside the church to allow pedestrians to cross A1094 and wait outside the church off the highway; • An extension of the existing footway along the front of the petrol filling station to reduce the distance residents living to the west of the village have to walk in the road; and • Provide a footway opposite the petrol filling station near the post box and village notice board and associated pedestrian dropped crossing to access the southern side of the road. An assessment of construction phase noise on residential receptors arising from construction traffic is presented within ***section 25.6.1.2*** (Impact 2) of ***Chapter 25 Noise and Vibration*** (APP-073). This comprised an exercise to assess whether any significant changes in traffic volume are anticipated and whether any associated change in noise level would arise, which was assessed following the methodology set out in the Design Manual for Roads and Bridges (Volume 11, Section 3, Chapter 7) (as per ***section 25.4.3.2.1*** of ***Chapter 25 Noise and Vibration*** (APP-073). The assessment found that any construction phase traffic noise impact would be no greater than of minor magnitude, resulting in impacts of no greater than a minor adverse significance.

No.	Relevant Representation	Applicant's Comments
		Chapter 19 Air Quality (APP-067) provides an assessment of the impacts on air quality arising from the projects. The chapters accompanying appendices, ***Appendices 19.1*** *to* ***19.4*** (APP-490 to APP-493), provide further information on detailed aspects of this assessment. Construction phase road traffic emissions were assessed as being not significant.
004	The opposition to the proposals to build the substation are also based on the impact the construction will have visually and environmentally, adjacent to an AONB and to what are small rural roads and conurbations. The PC has noted and agrees with the concerns of both Suffolk County Council and East Suffolk Council to the DCO proposals in terms of the impact in an AONB and the lack of detail contained in the consultation documentation and DCO application.	The Applicant notes the comments from Snape Parish Council with respect to the onshore elements of the Project. The Applicant is responding directly to relevant representations from other parish councils along the onshore cable route and Suffolk County Council and East Suffolk Council. From the outset, careful siting of the onshore substations and National Grid substation has set out to avoid key areas of sensitivity wherever possible. Embedded mitigation has included: • Careful siting of the onshore substations and National Grid substation to the west and south of existing woodland blocks to gain maximum benefit from existing screening; • Careful siting of the onshore substations and National Grid substation in close proximity to the existing overhead lines to reduce additional cabling requirements and to minimise proliferation of infrastructure; and • Siting the onshore substation and National Grid substation in an area of low flood risk (Flood Zone 1) as shown in ***Figure 20.2*** (APP-266). A Red / Amber / Green (RAG) assessment (***Appendix 4.2*** (APP-443)) was undertaken to score potenital substation locations. These were scored against criteria agreed with statutory consultees. These included archaeology / heritage, ecology, landscape, hydrology and hydrogeology, engineering, community, landscape and visual, property and planning. The RAG assessment did not identify the chosen onshore substation site, rather it was a tool that allowed a number of sites to be compared and the most acceptable sites identified at the time to progress to further assessment stages.

No.	Relevant Representation	Applicant's Comments
		The culmination of the various work streams as described in ***section 4.9.1.3*** enabled the Applicant to decide that the substation zone northeast of Friston (Zone 7) as the proposed zone to be taken forward. Potential impacts on landscape and visual during construction of the onshore substation and national grid infrastructure are assessed in ***sections 29.6.1.3.1*** and ***29.6.1.3.2*** of ***Chapter 29 Landscape and Visual Impact Assessment*** respectively. The construction of the onshore substation and National Grid infrastructure will have no significant effects on the character or special qualities of the AONB. The onshore substation and National Grid infrastructure are located outside the AONB and its immediate setting, approximately 1.6km to the north of the AONB at its closest point (where the AONB covers the estuary of the River Alde) and 3.7km to the west of the edge of the main 'coastal' area of the AONB (near Aldringham (Area A)). The special qualities of the AONB will not be subject to change as a result of the construction of the onshore substation and National Grid infrastructure, primarily due the distance of the construction of the onshore substation and National Grid infrastructure from the AONB, their limited visibility from within the AONB and the lack of any changes to the pattern of elements within AONB. The landscape impact of the cable route construction, specifically its effect on the Estate Sandlands Landscape Character Type and AONB special qualities, is described in ***section 29.6.1.2*** and ***Appendix 29.3*** (APP-567) ***(Section 29.3.2)*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077).
005	This lack of detail has been a consistent theme and remains a concern shared by Snape PC given the length of time that has been available to SPR to construct and research the proposed development. It is an issue that must be outlined in much greater detail in terms of the	The Applicant notes the Parish Council's concerns. The Applicant considers the information submitted with the application to be detailed and robust. The information provided at each phase of consultation was consistent with the objectives of the Statement of Community Consultation. As discussed above, statutory consultees, prescribed consultation bodies, Local Planning Authorities, persons with an interest in the land, local communities, the

No.	Relevant Representation	Applicant's Comments
	transport proposals and environmental impact before the DCO can be approved.	wider public and other organisations were consulted on the PEIR. The PEIR included details of the preliminary environmental assessment findings, a description of the proposals and baseline environmental information collected (to date). The information provided in the Environmental Statement includes a detailed project description (***Chapter 6*** (APP-054)) and traffic and transport assessment (***Chapter 26 Traffic and Transport*** (APP-074)), supported by an ***Outline Construction Traffic Management Plan*** (OCTMP) (APP-586), an ***Outline Access Management Plan*** (OAMP) (APP-587) and an ***Outline Travel Plan*** (OTP) (APP-588).
006	The PC noted with concern that there continues to be complete lack of detailed granular analysis of the potential impact of traffic over peak periods such as holidays or the frequent and long established cultural events at both Snape and Aldeburgh. All the analysis and calculations were based on average traffic movements which given the nature of traffic in the area ignores the GEART guidance that is referred to in the documentation.	The Applicant notes the Parish Council's concerns regarding the potential impact of traffic over peak periods and cultural events held in Snape and Aldeburgh including, for example, the annual Aldeburgh Festival and many musical festivals and concerts at Snape Maltings. The Applicant disagrees that the analysis and calculations ignored GEART guidance. Traffic and Transport was identified as a critical topic for the EIA. Pre-application technical engagement was undertaken via the Traffic and Transport expert topic group (ETG), described within ***Chapter 5 EIA Methodology*** (APP-054). Meetings were held in April 2018, May 2018, July 2018, September 2018, January 2019 and May 2019. The Traffic and Transport ETG stakeholder membership comprised the relevant technical leads from East Suffolk Council (ESC), Suffolk County Council (SCC) and Highways England (HE). The ETG discussed and agreed the methodology for the assessment and the assumptions within it. The ETG agreed that the survey window to establish the baseline traffic counts should be representative of the existing environment. The assessment is based on the percentage of extra traffic over the baseline. If the baseline uses peak periods, then the percentage increase of traffic due to construction vehicles is relatively smaller than if non-peak times are used as the baseline. This approach would understate the magnitude of effect. The recommendation from

No.	Relevant Representation	Applicant's Comments
		the ETG was that baseline traffic counts should therefore not be undertaken during school holidays as these peak periods do not represent the worst case. The Guidelines for the Environmental Assessment of Road Traffic (GEART) are the UK recognised guidelines for the assessment of the environmental impacts of road traffic associated with new developments and these were used in the EIA.
007	The PC was concerned that despite specifically previously asking for consideration of the potential cumulative impact of the SPR proposals taken together with the developing Sizewell C plans and National Grid plans for infrastructure developments, that the sections on cumulative impact within the documentation held no real detail on the potential impact of concurrent development. It has been striking that there is frequent reference to ongoing work and the need to continue it over an extended period, but the issue remains of the potential damaging cumulative impact that could destroy, or at the very least significantly denude, the vital tourist and farming industries that the area depends on currently for employment	The Applicant notes the Parish Councils concerns. The Applicant considers that the assessment of cumulative impacts of existing and potential future projects is robust. <u>Cumulative Impact Assessment</u> A cumulative impact assessment (CIA) has been carried out for each of the considered receptor topics in Chapters 7 to 30 (APP 055-078) of the Environmental Statement. The approach to assessing cumulative effects with other development has been undertaken in accordance with Planning Inspectorate Advice Note 17: Cumulative Effects Assessment (2018) (***section 5.1*** of ***Chapter 5 EIA Methodology*** (APP-053). The assessment methodologies and scope of other projects considered for each EIA topic have been developed with Local Planning Authorities and statutory stakeholders via Expert Topic Groups as described in ***section 5.3***. The Applicant is therefore of the view that the cumulative impacts have been adequately assessed and in line with the published guidance. The approach used for the CIA follows Planning Inspectorate Advice Note 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17 as summarised in the following: • **Tier 1** – Projects under construction, permitted or submitted applications;

No.	Relevant Representation	Applicant's Comments
		• **Tier 2** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and • **Tier 3** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent. Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to insufficient information available on which to base an assessment, in line with Advice Note 17. In some technical chapters, a more refined tiering system based on the guidance issued by JNCC and Natural England in September 2013[33] is employed. This approach was acknowledged within the Planning Inspectorate's Scoping Opinion (APP-033). Sizewell C New Nuclear Power Station was screened into and assessed in a number of the topic CIAs however due to a lack of available data at the time of writing, some of these had to be conducted qualitatively, when a quantitative assessment would have been desirable, for example for the traffic and transport and air quality impact assessments. The Applicant has committed to carrying out full quantitative CIAs for these topics. The required information to inform this has now been submitted within the Sizewell C New Nuclear Power Station Application. The updated CIA (as appropriate) will be submitted during the Examination of the Project. Tourism Effects on tourism and recreation may potentially arise from two pathways:

[33] JNCC and Natural England (2013). Suggested Tiers for Cumulative Impact Assessment.

No.	Relevant Representation	Applicant's Comments
		The first pathway is from direct impacts upon tourism and recreation assets during construction of the Project (i.e. physical disturbance – air quality, noise etc in ***Table 30.67, Table 30.68 and Table 30.69, Chapter 30 Tourism, Recreation and Socio-Economics***). The assessment also takes account of construction effects from transport and these have been fully assessed in ***Chapter 26 - Traffic and Transport*** (APP-074), ***Section 26.6. 1.11 Impact 4: Driver Delay (Capacity)*** and section ***26.6.1.12 Impact 5: Driver Delay (Highway Geometry)***. No significant adverse effects are predicted after mitigation described in the inter-related chapters (i.e. ***Chapter 19 Air Quality*** (APP-067), ***Chapter 20 Water Resources and Flood Risk*** (APP-068), ***Chapter 25 Noise and Vibration*** (APP-073) ***Chapter 26 Traffic and Transport*** (APP-074)). The second pathway is from the perception of large-scale developments as being an adverse impact on the area as a tourist destination. Whether there is a perception of development by visitors or potential visitors (and therefore an actual pathway for impact) will depend on two factors. Firstly, a development would need to be in the public eye and known to potential visitors. Although the Project is a Nationally Significant Infrastructure Project it is not an iconic project (e.g. Crossrail, Sizewell C New Nuclear Power Station, Heathrow Airport), and unlikely to be widely known or understood as a distinct project by the general public or visitors. Indeed, this point is supported by the DMO Report (*The Energy Coast Implications, impact & opportunities for tourism on the Suffolk Coast*) which states that *"Half of regional market* [visitors who responded to the DMO survey living within 3 hours of the Suffolk Coast] (*51%) unaware of EDF plans for Sizewell C whilst two-thirds (65%) unaware about SPR's plans*" (page 26). Secondly visitors already in the area would need come into contact with construction activity or traffic effects and link that to the Project. This would affect only visitors to the proximity of the onshore study area and as noted above all traffic impacts that would affect visitors (e.g. driver delay) were assessed as non-significant in EIA terms.

No.	Relevant Representation	Applicant's Comments
		Cumulative tourism and recreation disturbance impacts will come from the same two pathways; i.e. direct impacts upon tourism and recreation assets from construction and secondly from the perception of multiple large scale developments as being an adverse impact on the area as a tourist destination. With regard to the direct impacts, all projects (i.e. East Anglia TWO, East Anglia ONE North and Sizewell C) will need to mitigate their impacts to acceptable levels or provide similar mitigations for assets such as PRoWs. Proposed mitigation for the Project can be found in the following documents: ***Outline Public Rights of Way Strategy*** (APP-581), ***Outline Code of Construction Practice*** (APP-578) and the ***Outline Landscape and Ecological Management Strategy*** (APP-584). These documents provide the basis for the mitigation which will be set out in final documents which must be approved by the Local Planning Authority before onshore works can commence. Both of the Projects have this mitigation and Sizewell C would need to have similar requirements. It is therefore assumed that, with the exception of traffic impacts, these direct impacts would not be significant cumulatively as each project would mitigate their own impacts and unless projects had overlapping footprints there would be limited potential for cumulative impacts upon the same receptor. Given mitigation commitments it is considered that these impacts would be of negligible significance (see ***Table 30.71*** and ***Table 30.84***). Construction phase traffic and transport issues have only been assessed qualitatively and will be updated once the final application documents are available from EDF Energy for Sizewell C New Nuclear Power Station, which has recently been submitted. The updated CIA (as appropriate) will be submitted during the Examination of the Project. As discussed above, it is not considered that the Applicant's Project will have significant impacts upon visitor perception during construction as they are not iconic projects likely to be in the public mind and direct impacts which could affect visitors already present in the area will be mitigated to not significant levels. It is accepted that Sizewell C New Nuclear Power Station does have a

No.	Relevant Representation	Applicant's Comments
		high public profile and indeed is linked by name with the area. Reports from EDF Energy Hardisty Jones Associates (2018) suggest that there could be potential impacts upon tourism and recreation from Sizewell C New Nuclear Power Station. The Applicant recognises that there is the potential for two future proposed National Grid Ventures (NGV) interconnector projects in the local area. Whilst these interconnector projects are currently at a very early stage of their development and have yet to select a landfall location, convertor location or onshore cable corridor, each have a grid connection agreement to connect into the national electricity grid at Grove Wood, Friston (referred to on the National Grid Interconnector TEC Register as 'Leiston 400kV substation'). The Applicant is seeking consent only for the National Grid infrastructure required for the Project, therefore any additional National Grid infrastructure required for the interconnector projects will be subject to a separate consent application from NGV or National Grid in due course.

3.12 Southwold Town Council (RR-006)

Table 16 Applicant's Comments on Southwold Town Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	The reason for registering is to follow and support Natural England's concerns about the proposed developments. Southwold Town Council is supportive of the environmental advantages of renewable power but are concerned about the effect on the tranquillity and wilderness of the AONB landscape.	The Applicant notes Southwold Town Council's concerns regarding the effect on the tranquillity and relative wildness of the Area of Outstanding Natural beauty (AONB) landscape. Potential impacts on the Suffolk Coast and Heaths AONB and its special qualities (including tranquillity) and natural beauty indicators (including relative wildness) are assessed in ***section 29.6.1.2*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077) and ***Appendix 29.3 Landscape Assessment*** (APP-567). The AONB's special qualities and natural beauty indicators are also considered in ***section 28.7.3.2*** of ***Chapter 28 Seascape Landscape and Visual Impact Assessment*** and ***Appendix 28.4 Landscape Assessment*** (APP-559). Onshore infrastructure - Construction The landscape impact of the cable route construction, specifically its effect on the Estate Sandlands Landscape Character Type and AONB special qualities, is described in ***section 29.6.1.2*** and ***Appendix 29.3*** (APP-567) (***Section 29.3.2***) of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077). Significant, short-term, temporary construction stage effects on the landscape/scenic quality and wildness/tranquillity special qualities of Area A (between Thorpeness, Sizewell and Leiston) of the AONB (***Figure 29.3*** (APP-393)) will primarily be experienced over several separate short 2-3 month periods of peak construction activity and not continuously throughout the construction phase. Over the majority of the construction stage, the relevant section of the onshore cable route will not be subject to these key construction works and the onshore cable route will primarily consist of installed infrastructure and stripped topsoil to be reinstated, during which time the effects on these AONB special qualities are considered not significant due to the limited construction activity. Given its route primarily through farmland and avoiding features of natural heritage

No.	Relevant Representation	Applicant's Comments
		value, the construction of the onshore cable route is assessed as having not significant effects on the natural heritage features of the AONB. In order to minimise duration of impacts on the AONB arising from the onshore cable crossing of the Sandlings Special Protection Area (SPA), the Applicant has committed to a reduced onshore cable working width of 16.1m (reduced from 32m) for a length of up to 300m, depending on the detailed design, if open cut trenching is employed. This technique means the duration of works associated with crossing the Sandlings SPA will be shorter compared with trenchless techniques. After exiting the AONB, the onshore cable route then takes a route which runs parallel to the western edge of the AONB between Leiston and Aldringham. In this area, outside the AONB, there will be no direct effects from construction of the onshore cable route on the landscape elements/physical features of the AONB (Area B–between Thorpeness, Aldeburgh and Snape). There will be no significant effects on the landscape and scenic quality of the setting, relative wildness, tranquillity, natural and cultural heritage features of the AONB as a result of visibility of the construction of the onshore cable route when it is in close proximity to the AONB boundary. To the south of Aldringham, the onshore cable route extends west away from the coastal areas of the AONB towards the onshore substation, becoming increasingly distant from the coastal part of the AONB, while running parallel to, and approximately 1km north of the AONB covering the River Alde estuary. The construction of the onshore cable route over this section will have no significant effects on the special qualities of the AONB. The effect of the onshore cable route during construction is therefore only assessed as having significant, short-term and temporary effects on the character of the AONB within a localised area of the onshore cable route between Thorpeness, Sizewell and Leiston (Area A), as shown in ***Figure 29.8*** (AAP-398) but is assessed as not significant, short-term and temporary on the wider AONB within the LVIA study area (Areas B and C (between Sizewell and Dunwich

No.	Relevant Representation	Applicant's Comments
		Forest)).The commitment to a reduced onshore cable working width for the open cut trenching (as above) means the duration of work associated with crossing the Sandlings SPA (within the AONB) is shorter; resulting in works for both projects being undertaken after the breeding bird season is completed, and before peak season for visitors to the AONB. It is anticipated that once operational, the potential effects of the landfall and onshore cable route would not be significant due to their presence underground. The assessment of these components during the operational phase has been scoped out of the LVIA, as agreed through the scoping process, with the exception of the removal of woodland west of Aldeburgh Road to facilitate the onshore cable route crossing of Aldeburgh Road (B1122) which is assessed as an operational impact in ***section 29.6.2.1.1*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077). <u>Onshore Infrastructure - Operation:</u> The operation of the onshore substation and National Grid infrastructure will have no significant effects on the character or special qualities of the AONB. The onshore substation and National Grid infrastructure are located outside the AONB and its immediate setting, approximately 1.6 km to the north of the AONB at its closest point (where the AONB covers the estuary of the River Alde) and 3.7km to the west of the edge of the main 'coastal' area of the AONB (near Aldringham (Area A)). The special qualities of the AONB will not be subject to change as a result of the operation of the onshore substation and National Grid infrastructure due the distance of the onshore substation and National Grid infrastructure from the AONB and their limited visibility from within the AONB. <u>Offshore Infrastructure</u> Potential impacts of the East Anglia TWO windfarm site on relative tranquillity and relative wildness with regards to seascape are assessed in ***Appendix 28.4 Landscape Assessment*** and summarised in ***section 28.7.3.2.3*** of ***Chapter 28 Seascape Landscape and Visual Impact Assessment***. No significant effects

No.	Relevant Representation	Applicant's Comments
		are predicted for Relative Tranquillity. Significant effects are predicted for Relative Wildness only in respective of the open and expansive views offshore. This is a particular effect on one aspect of relative wildness that derives from changes to views from the AONB. From the southern parts of the AONB coastline, there is little or no visibility of the East Anglia ONE North windfarm site, therefore the potential for additional cumulative effects on the special qualities of the AONB can largely be discounted, with the effect resulting entirely from the presence of the offshore infrastructure. 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 result in relatively minimal 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.

3.13 Theberton and Eastbridge Parish Council (RR-017)

Table 17 Applicant's Comments on Theberton and Eastbridge Parish Council's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	The Parish Council is concerned regarding the potential cumulative impacts of construction HGV and other associated traffic on the B1122, from its junction with the A12 to Lovers Lane in Leiston	The Applicant notes the Parish Council's concerns regarding cumulative impacts of construction traffic. ***Chapter 26 Traffic and Transport*** (APP-074) provides an assessment of the traffic and transport effects of the projects. In addition, ***Appendices 26.1 –26.26*** (APP-527 -APP-552) provide further information on detailed aspects of this assessment. The B1122, from its junction with the A12 to Lovers Lane (Link 4, Link 11 and Link 12 (illustrated on ***Figure 26.1*** (APP-306))), was subject to an assessment in accordance with recognised UK guidelines (GEART)) and included the consideration of the following impacts: • Impact 1 – Pedestrian Amenity • Impact 2 – Severance • Impact 3 – Road Safety • Impact 4 – Driver Delay (capacity) • Impact 5 – Driver Delay (highway geometry) The ***Outline Access Management Plan*** (APP-587) Annex 1 details UK standard compliant access treatment for Access 1 and Access 2 (both located on Lovers Lane – Link 12) which includes the provision of a 40mph speed limit. The access strategy (***section 2.1*** of the ***Outline Access Management Plan***) applies a hierarchical approach (informed by the Suffolk Country Council HGV route hierarchy) to selecting routes and where possible, seeks to reduce the impact of HGV traffic upon the most sensitive communities. EDF Energy has indicated that it does not propose to route construction HGV and other associated traffic via Link 12 and therefore there would be no potential for cumulative impacts with Sizewell C.

No.	Relevant Representation	Applicant's Comments
		As detailed within requirement 28 of the ***draft DCO*** (APP-023), a Construction Traffic Management Plan (CTMP) is required to be submitted to the local planning authority for approval in consultation with the relevant highway authority. This must be based on the ***outline CTMP*** (APP-586).and under the requirements of the ***draft DCO*** it must be implemented as approved.
002	The current proposal from Scottish Power Renewables, for East Anglia One North wind farm; On-shoring and landside developments being pursued in parallel with East Anglia Two Or On-shoring and landside developments separated by an unspecified time gap between East Anglia One North and East Anglia Two	The East Anglia TWO offshore windfarm project and East Anglia ONE North offshore windfarm project are two separate projects which are the subject of two separate applications. The draft DCOs require each project to commence construction within seven years of the date of the DCOs coming into force. At this stage it is not known whether both projects would be constructed simultaneously or with a construction gap. Therefore, the onshore topic assessments within each environmental statement include two cumulative assessment scenarios which are considered to represent the two worst case scenarios for construction of the onshore infrastructure. These are: • Scenario 1 assesses the impacts of both Projects being built simultaneously (at the same time); and • Scenario 2 assesses the impacts of both Projects being built with a construction gap. Scenario 1 assumes that the landfall, onshore cable corridor and onshore substation construction periods for both Projects occur over the same period as would have occurred for a single project (the anticipated programme is presented in ***section 6.9*** of ***Chapter 6 Project Description*** (APP-054). Scenario 2 assumes onshore construction of the first project and its full re-instatement, followed by the construction of the second project at a later date. These cumulative assessment scenarios also ensure that a partial overlap in project construction has been fully assessed within the ES.

No.	Relevant Representation	Applicant's Comments
		In fully assessing the above scenarios within each ES, the Applicant retains the necessary flexibility to adopt the optimum delivery solution for each project which reflects the supply chain constraints and opportunities at the time.
003	The Sizewell B Facilities Relocation The "early years" of any approved Sizewell C Construction when no relief road will be available but will potentially be under construction, according to current unapproved EDF NNB proposals There are also four other potential developments in this area with as yet unknown development timescales, being Nautilus and Eurolink interconnectors and expansions to Greater Gabbard and Galloper wind farms some of which also have potential to overlap with these more developed projects.	The Applicant considers that the assessment of cumulative impacts of existing and potential future projects is robust. A cumulative impact assessment (CIA) has been carried out for each of the considered receptor topics in Chapters 7 to 30 (APP 055-078) of the Environmental Statement. The approach used for the CIA follows Planning Inspectorate Advice Note 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17 as summarised in the following: • **Tier 1** – Projects under construction, permitted or submitted applications; • **Tier 2** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and • **Tier 3** – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent. Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to insufficient information available on which to base an assessment, in line with Advice Note 17.

No.	Relevant Representation	Applicant's Comments
		In some technical chapters, a more refined tiering system based on the guidance issued by JNCC and Natural England in September 2013[34] is employed. This approach was acknowledged within the Planning Inspectorate's Scoping Opinion (APP-033). The CIA takes into consideration other relevant windfarm projects (including concurrent and sequential construction of each individual East Anglia TWO and East Anglia ONE North project) and industrial activities. Each CIA describes a screening exercise which has been undertaken to screen in potential inter-related impacts and then potential projects to the assessment. Following the guidance in Advice Note 17, the below projects were not considered in the CIA because at the time the Projects' CIAs were written there was inadequate detail upon which to base any meaningful assessment (with no information on, for example, the project design, and timescales): • Nautilus • EuroLink • Greater Gabbard Offshore Windfarm Extension • Galloper Offshore Windfarm Extension Each of these projects is nationally significant and therefore will require its own EIA and as part of that will need to undertake a cumulative assessment. Each of the above projects will consider the Project in each of their respective EIAs as they progress through the planning process. Sizewell C New Nuclear Power Station was screened into and assessed in a number of the topic CIAs however due to a lack of available data at the time of writing, some of these had to be conducted qualitatively, when a quantitative assessment would have been desirable, for example for the traffic and transport and air quality impact assessments. The Applicant has committed to carrying out

[34] JNCC and Natural England (2013). Suggested Tiers for Cumulative Impact Assessment.

No.	Relevant Representation	Applicant's Comments
		full quantitative CIAs for these topics. The required information to inform this has now been submitted within the Sizewell C New Nuclear Power Station Application. The updated CIA (as appropriate) will be submitted during the Examination of the Project.

4 Comments on Statutory Consultees Relevant Representations

7. The Applicant's comments on Relevant Representations received from statutory consultees can be found in ***Table 18 to Table 54*** below.

4.1 Anglian Water Services Ltd (RR-024)

Table 18 Applicant's Comments on Anglian Water Services Ltd's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	Anglian Water is considered to be a statutory consultee for nationally significant infrastructure projects as identified in the Planning Act 2008 and associated regulations. The following representations are submitted on behalf of Anglian Water as water and sewerage undertaker for the above site	Noted.
002	Anglian Water is in principle supportive of the above project. Impact on existing assets: There is existing water recycling infrastructure in Anglian Water's ownership within the onshore cable route. These assets are critical to enable us to carry out Anglian Water's duty as a sewerage undertaker. We anticipate having further discussions with the applicant about the need for diversions and/or crossings etc. of existing sewers as appropriate.	Noted. As stated in ***Table 20.3*** of ***Chapter 20 Water Resources and Flood Risk*** (APP-068) and in ***section 11*** of the ***Outline Code of Construction Practice*** *(CoCP)* (APP-578), a construction-stage Surface Water and Drainage Management Plan and Flood Management Plan will be developed as part of the CoCP. Requirement 22 of the ***draft DCO*** (APP-23) provides that onshore works cannot commence until the Surface Water and Drainage Management Plan and Flood Management Plan included in the CoCP is submitted to and approved by the relevant local planning authority.
003	Protective provisions: We have previously requested the inclusion of specific wording for the benefit of Anglian Water. It is noted that specific protective provisions have been included in the current version of the DCO (Schedule 10, Part 3 of the Draft DCO) as requested. Therefore we are supportive of the wording of the Draft DCO as submitted.	Noted.
004	Connections to water supply/public sewerage networks: Anglian Water is not aware of any water supply or wastewater requirements made upon them for the above project. Should a water supply or wastewater service be required and once agreement has been	Noted.

No.	Relevant Representation	Applicant's Comments
	reached, there are a number of applications required to deliver the necessary infrastructure as outlined in the Water Industry Act 1991.	

4.2 Cadent Gas (AS-007)

Table 19 Applicant's Comments on Cadent Gas' Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	Cadent's rights to retain its apparatus in situ and rights of access to inspect, maintain, renew and repair such apparatus located within or in close proximity to the order limits including should be maintained at all times and access to inspect such apparatus must not be restricted. Cadent has low pressure and medium pressure gas pipelines and associated below or above ground apparatus within the order limits which are affected by works proposed. No diversions are required to Cadent apparatus, but adequate protection must be in place.	The Applicant and Cadent are seeking to agree Protective Provisions for inclusion in Schedule 10 of the Development Consent Order in order to protect Cadent's apparatus. The Applicant is committed to ongoing engagement with Cadent.
002	Cadent has been engaged with the Promoter since July 2019 and are currently ensuring that acceptable protective provisions are to be included within the DCO to ensure that Cadent apparatus and land interests are adequately protected and to include compliance with relevant safety standards. Cadent has been seeking to discuss a form of Protective Provisions to be included within the Order since October 2019. Cadent have only recently been getting a response from the Promoters solicitor and discussion are ongoing with a number of outstanding points still to agree.	The Applicant has engaged directly with Cadent since May 2019 on Cadent apparatus affected by the Order Land and proposed Protective Provisions. In July 2019, Cadent confirmed that their apparatus is located in the highway and would be protected under the New Roads and Street Works Act 1991. In August 2019, the Applicant informed Cadent that there is Cadent apparatus within the Order Land within third party land in addition the apparatus located in the highway. In September 2019, Cadent confirmed that Protective Provisions would be required. The Applicant is committed to ongoing engagement with Cadent in order to agree suitable Protective Provisions and from October 2019 both parties have been progressing the matter through their solicitors.

4.3 East Anglia ONE Limited (RR-032)

Table 20 Applicant's Comments on East Anglia ONE Limited's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	East Anglia ONE Limited fully supports the Development Consent Order application made by East Anglia TWO Limited. The project will make a significant contribution to the UK's renewable energy supply and consequently help provide significant benefits in terms of local and regional economic growth, energy security and decarbonisation. The East Anglia TWO project will continue SPR's investment in East Anglia as part of our East Anglia HUB initiative, where to date SPR has already spent, or has committed to spending (through the East Anglia ONE project), over £75 million with businesses across the East of England, providing significant jobs and investment to the region. The East Anglia ONE project has also facilitated further investments of £30m in port infrastructure at Lowestoft and Great Yarmouth.	Noted.
002	The East Anglia ONE Offshore Windfarm is 11km from the proposed East Anglia TWO Offshore Windfarm. The East Anglia ONE Offshore Export Cable Corridor passes through the East Anglia TWO Windfarm Site and Offshore Cable Corridor, approximately in an East to West trajectory. East Anglia TWOs draft Development Consent Order includes Protective Provisions to protect the integrity of East Anglia ONE Limited's offshore assets where interaction between the projects occurs. East Anglia ONE Limited consider this is the appropriate mechanism to ensure its assets are protected in the future and will continue to liaise with East Anglia TWO Limited during subsequent phases of the project, to ensure these protective provisions are adhered to.	Noted. Protective Provisions are included within the ***draft DCO*** (APP-023) and are the appropriate mechanism for protecting the East Anglia ONE assets.

4.4 East Anglia ONE North Limited (RR-033)

Table 21 Applicant's Comments on East Anglia ONE North Limited's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	East Anglia ONE North Limited fully supports the Development Consent Order application made by East Anglia TWO Limited. The project will make a significant contribution to the UK's renewable energy supply and consequently help provide significant benefits in terms of local and regional economic growth, energy security and decarbonisation. The East Anglia TWO project will continue SPR's investment in East Anglia as part of our East Anglia HUB initiative, where to date SPR has already spent, or has committed to spending (through the East Anglia ONE project), over £75 million with businesses across the East of England, providing significant jobs and investment to the region. The East Anglia ONE project has also facilitated further investments of £30m in port infrastructure at Lowestoft and Great Yarmouth.	Noted.
002	The East Anglia ONE North Offshore Windfarm is located 10km from the proposed East Anglia TWO Offshore Windfarm. The East Anglia ONE North offshore cable corridor is partially shared with the East Anglia TWO offshore cable corridor northern route. East Anglia ONE North also shares the onshore development area with East Anglia TWO. East Anglia TWO's draft Development Consent Order includes Protective Provisions to protect the integrity of East Anglia ONE North Limited's offshore and onshore assets where interaction between the projects occurs. East Anglia ONE North Limited consider that this is the appropriate mechanism to ensure its assets are protected in the future and will continue to liaise with East Anglia TWO Limited during subsequent phases of the project to ensure these protective provisions are adhered to.	Noted. Protective Provisions are included within the ***draft DCO*** (APP-023) and are the appropriate mechanism for protecting the East Anglia ONE North assets.

4.5 East Anglia THREE Limited (RR-035)

Table 22 Applicant's Comments on East Anglia THREE Limited's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	East Anglia THREE Limited fully supports the Development Consent Order applications made by East Anglia TWO Limited. The project will make a significant contribution to the UK's renewable energy supply and consequently help provide significant benefits in terms of local and regional economic growth, energy security and decarbonisation.	Noted
002	The East Anglia TWO project will continue SPR's investment in East Anglia as part of our East Anglia HUB initiative, where to date SPR has already spent, or has committed to spending (through the East Anglia ONE project), over £75 million with businesses across the East of England, providing significant jobs and investment to the region. The East Anglia ONE project has also facilitated further investments of £30m in port infrastructure at Lowestoft and Great Yarmouth. East Anglia THREE is 45km from East Anglia TWO.	Noted
003	The East Anglia THREE Offshore Export Cable Corridor passes through the East Anglia TWO Windfarm site and Offshore Cable Corridor approximately in an East to West trajectory. East Anglia TWOs draft Development Consent Order includes Protective Provisions to protect the integrity of East Anglia Three Limited's offshore assets where interaction between the projects occurs. East Anglia THREE Limited consider this is the appropriate mechanism to ensure its assets are protected in the future and will continue to liaise with East Anglia TWO Limited during subsequent phases of the project to ensure these protective provisions are adhered to.	Noted. Protective Provisions are included within the ***draft DCO*** (APP-023) and are the appropriate mechanism for protecting the East Anglia THREE assets.

4.6 Eastern Inshore Fisheries Conservation Authority (RR-036)

Table 23 Applicant's Comments on Eastern Inshore Fisheries Conservation Authority's Relevant Representation

No.	Topic / Issue	Applicant Response
001	*1.1 Role of the Eastern Inshore Fisheries and Conservation Authority* The role of the Eastern Inshore Fisheries and Conservation Authority (Eastern IFCA) is to "lead, champion and manage a sustainable marine environment and inshore fisheries" in our district, which extends from the Humber to Harwich, and six nautical miles out to sea. The proposed cable route for East Anglia TWO Offshore Wind Farm will pass through the Eastern IFCA district. Therefore, given the potential impacts upon inshore fisheries and marine species, it is considered appropriate for Eastern IFCA to register as an Interested Party and to provide a Relevant Representation. It should be noted that our interest focuses primarily on the inshore section (0-6 nm) of the cable route corridor.	Noted.
002	*1.2. Use of the relevant marine plan* In all consultation responses, the Authority assesses applications (and pre-applications) according to their adherence with policies detailed in the relevant marine plan, as directed under section 58(1) of the Marine and Coastal Access Act 2009. The plans relevant to the Authority's district are the East Inshore and East Offshore Marine Plans (HM Government, 2014). We consider whether proposed developments will have a positive, negative or negligible effect on plan policies related to the IFCA vision to "manage a sustainable marine environment and inshore fisheries", highlighted below: *BIO 1 and BIO 2* We have highlighted potential impacts of the proposal on red throated divers and harbour porpoises (section 2.1.2), however we defer to the	Please see the Applicant's response within the Marine Policy Clarification Note (***Appendix 1*** of this document).

No.	Topic / Issue	Applicant Response
	relevant Statutory Nature Conservation Body (SNCB), in this case Natural England and JNCC for specific advice regarding these species. *MPA1* Eastern IFCA recognise the potential for impacts on marine protected areas associated with the proposed works. We defer to Natural England on potential impacts on the conservation objectives of the Outer Thames Estuary SPA and Southern North Sea SAC and have highlighted the potential impacts of the project on sandeels as prey for Annex II harbour porpoises (Section 2.2.2). *EC3* Sustainably-developed offshore wind farms will generally have Eastern IFCA's support, although we emphasise the need for such proposals to be developed with due regard to fisheries and conservation sensitivities and in full consultation with relevant stakeholders. *ECO1* Cumulative impacts of the proposal with other offshore wind projects, and other plans and projects, require consideration in the examination. *GOV2* We would encourage good communication with fishery stakeholders to avoid preventing access to fishing grounds or activities and to mitigate against any anticipated impacts (Section 2.3). *GOV3* We would encourage good communication with fishery stakeholders to avoid preventing access to fishing grounds or activities and to mitigate against any anticipated impacts (Section 2.3). *FISH1*	

No.	Topic / Issue	Applicant Response
	We would encourage good communication with fishery stakeholders to avoid preventing access to fishing grounds or activities and to mitigate against any anticipated impacts (Section 2.3) *FISH2* Detail on potential loss of spawning and nursery areas included in Section 2.2.2. Potential impacts of the project on commercially fished fish and shellfish species with regards to electromagnetic fields emitted by subsea cables. (Section 2.2.3). *CAB1* Preference for cable burial is outlined in section 2.4.	
003	*2.1. Policies BIO1, BIO2 and MPA1* *2.1.1. Southern North Sea Harbour Porpoise SAC* The proposed export cable corridor lies within the Southern North Sea SAC, designated for the Annex II species harbour porpoise. Eastern IFCA defer to Natural England and the JNCC for formal advice on the potential impacts of the project, including the construction and maintenance of the export cable, on the conservation objectives of the site. Please see section 2.2.2 of this document for a more detailed response on the potential loss of sandeel spawning grounds.	Noted. Please see ***Chapter 11 Marine Mammals*** (APP-059) and ***section 5.3*** of the ***Information to Support Appropriate Assessment*** (APP-043) in which the impacts on harbour porpoise and on the Southern North Sea Special Area of Conservation (SAC) are assessed.
004	*2.1.2 The Outer Thames Estuary Special Protection Area (SPA)* The proposed export cable corridor passes through the Outer Thames Estuary SPA, designated for the threatened red-throated divers that over winter in the site. Eastern IFCA recognise that the Applicant has acknowledged that there is potential for disturbance and displacement of Red-throated divers resulting from the presence of up to two cable laying vessels installing the export cable in the Outer Thames Estuary SPA. The site was designated for Annex 1 species Red-throated diver as the	Noted. The Applicant has prepared a clarification note in response to comments raised in Natural England's Relevant Representation regarding potential disturbance and displacement associated with construction and operation of export cables within the Outer Thames Estuary Special Protection Area (SPA). Please see the Outer Thames Estuary Cabling Note (***Appendix 5*** of this document).

No.	Topic / Issue	Applicant Response
	sole feature (Natural England and JNCC 2010; JNCC 2011c) and an estimated 6,466 Red-throated divers wintered in the SPA from 1989-2006/07), but an aerial survey in February 2013 counted 14,161 Red-throated divers within the SPA boundary, suggesting that numbers have increased, and the population is in favourable conservation status (Goodship et al. 2015). The relevant conservation objective for the Outer Thames Estuary SPA is "subject to natural change, maintain or enhance the Red-throated diver population and its supporting habitats in favourable condition" (JNCC and Natural England 2013). Eastern IFCA defer to Natural England and the JNCC for formal advice on the potential impacts of the project, including the construction and maintenance of the export cable, on the conservation objectives of the site.	
005	*2.2. Policies EC3, ECO1 and FISH2* *2.2.1. Cumulative impacts on marine life and fisheries* Whilst the East Marine Plans state that proposals contributing to offshore wind energy generation within the Plan area should be supported, consideration should be afforded to the cumulative impacts of developments within the Plan area and adjacent areas. Eastern IFCA will generally support proposals for sustainably-developed offshore wind farms, although we would highlight the need for such proposals to be developed with due regard to fisheries and conservation sensitivities and in full consultation with relevant stakeholders. The East Marine Plans support sustainably developed offshore wind energy projects whilst the Marine Policy Statement (MPS) (HM Government, 2011) provides a high-level approach to marine planning and general principles for decision making that contribute to the MPS objectives. It also sets out the framework for environmental, social and economic considerations that need to be considered in marine planning. The southern North Sea already contains a large number of offshore windfarms and has been identified as being suitable for further	Potential cumulative impacts and inter-relationships have been assessed in ***sections 10.7*** and ***10.9*** of ***Chapter 10 Fish and Shellfish Ecology*** (APP-058) and ***sections 13.7*** and ***13.9*** of ***Chapter 13 Commercial Fisheries*** (APP-061)***.*** For fish and shellfish ecology, as agreed with stakeholders in the Expert Topic Group (ETG), the cumulative assessment considers cumulative noise impacts, habitat loss and changes to sea bed habitat. All other Project impacts have been excluded in the cumulative assessment due to the negligible Project impacts on fish and shellfish receptors. ***Table 10.27*** of ***Chapter 10 Fish and Shellfish Ecology*** provides a full summary of the projects considered for the cumulative impact assessment. The plans and projects screened into the CIA either: • Overlap with the same spawning and / or nursery grounds for fish and shellfish species as the Project; or • Are located in the regional study area and are likely to impact the same fish and shellfish receptors; and

No.	Topic / Issue	Applicant Response
	expansion regions, with East Anglia identified as a suitable region for project proposals during Round 4 of Crown Estate leasing, and with the Yorkshire Coast and The Wash under further consideration (The Crown Estate, 2018). Many existing – or consented but not yet constructed – projects lie off the coast of Lincolnshire and East Anglia, with export cables running through inshore waters to make landfall in Lincolnshire, Norfolk and Suffolk. The region is also important for marine aggregate resource, with many active or planned dredging areas in existence. The government recently highlighted the need to address cumulative impacts of offshore windfarms on "other users of the sea space such as navigation, fishing and dredging" in order to deliver offshore wind energy in a sustainable way, as well as the need to "better understand the cumulative impacts, both in the ecological and socioeconomic arenas: including birds, marine mammals, navigation and fisheries, and coastal and onshore communities affected by associated infrastructure" in order to continue to support the fast pace of windfarm deployment in UK and European waters (GOV.UK, 2019). The cumulative impacts of multiple windfarms and dredging areas on marine life and on the viability of the inshore fishing industry need to be properly considered during planning and should be informed by full consultation with relevant stakeholders. We suggest that targeted effort is required in engagement with inshore fishery stakeholders. The impacts should be considered in combination, highlighting any potential cumulative effects associated with the application and guiding decision making and plan implementation.	• Have potential that construction, operation, or decommissioning phases could overlap with the construction, operation, or decommissioning of the Project, and • Where there is sufficient information and certainty in project programmes to allow for a meaningful assessment (***section 10.7***). For commercial fish, the cumulative assessment considers that currently operational offshore windfarms, active licenced activities and implemented measures are part of the existing environment, as commercial fishing activity would already be adapted to them. This follows the approach outlined in the Planning Inspectorate Advice Note 17 and in ***Chapter 5 EIA Methodology***. Oil and gas activities were not included in the cumulative assessment due to lack of available information on if and when new blocks will be developed (***section 13.7*** of ***Chapter 13 Commercial Fisheries***). The offshore windfarms and aggregate dredging areas considered in the cumulative assessment are summarised in ***Table 13.5.*** The Applicant continues to engage with inshore fishery stakeholders through the already established Commercial Fisheries Working Group (CFWG) (***section 13.2*** of ***Chapter 13 Commercial Fisheries***). Members of the CFWG include representatives from all local ports of relevance to the Projects (i.e. Sizewell, Orford, Aldeburgh, Harwich, Felixstowe, Lowestoft and Southwold). The CFWG aims to identify and develop co-existence strategies during a project's lifecycle. A Fisheries Liaison and Co-existence Plan (FLCP) will be produced for the Project, post-consent. It is expected that the CFWG will also be used to discuss any mitigation necessary for the Project where appropriate.

No.	Topic / Issue	Applicant Response
006	*2.2.2. Fish spawning and nursery habitats* Coastal habitats provide important spawning and nursery grounds for many marine species, therefore any disturbance to these habitats has the potential to negatively impact populations. Tope shark and Thornback ray utilise the Outer Thames Estuary as nursery grounds whilst herring use the area as a spawning site. The inshore area of the offshore cable corridor crosses the Outer Thames Estuary SPA, therefore these species will be particularly susceptible to any disturbance. The North sea is understood to support nursery grounds for additional species including herring, cod, whiting, mackerel, plaice and sole and spawning grounds for sole and sandeels (Ellis et al., 2012) – an important prey species of the Harbour porpoise, which is protected within the Southern North Sea cSAC. Eastern IFCA would like to highlight the potential impacts of the project on sandeel habitats and possible consequences for their abundance and distribution. Sandeels are important prey for a number of predators, including fish, seabirds and marine mammals, including Annex II harbour porpoises. Due to their high oil content and high numbers, sandeels maintain a key ecological role in the North Sea (Jensen et al., 2011). Sandeels depend on adequate sandy substratum in which they burrow and are demersal spawners that lay eggs on the seabed. Physical disturbance and loss of seabed associated with the construction phase of the proposed project could therefore have damaging impacts on the species. Although the best available information (Coull et al., 1998; Jensen et al., 2011; Ellis et al., 2012) shows extensive spawning grounds for many species, Eastern IFCA is concerned about the scale of offshore activities in the Southern North Sea because of the cumulative effects (see also Section 2.2.1) these could have on seabed habitats. Whilst we appreciate the difficulty in studying potential wide-scale impacts, we consider this issue an important one. We defer to Natural	The applicant has considered spatial overlap with fish spawning and nursery habitats (***section 10.5.2.4*** of ***Chapter 10 Fish and Shellfish Ecology*** (APP-058)) and this has been assessed in ***section 10.6.1*** and ***10.6.2***. Cumulative impacts are assessed in ***section 10.7.1***. Impacts have been assessed as no greater than minor adverse significance. With regards to sandeel, the Applicant has prepared an Outer Thames Estuary Cabling Clarification Note (***Appendix 5*** of this document) which draws on existing information within the EIA and summarises potential impacts on supporting habitat for sandeel and on prey species.

No.	Topic / Issue	Applicant Response
	England for formal conservation advice on the impact on the project on sandeels and any mitigation that may be required.	
007	*2.2.3. Electromagnetic fields* Eastern IFCA holds concerns about the proliferation of marine electricity cables off the East Anglian coast and the potential – but very poorly understood – impacts of electromagnetic fields on marine life. We would like to highlight that there are appreciable gaps in the scientific literature as to the potential effects of EMF emissions from subsea cables on marine fauna, and therefore there remain uncertainties in the ability of the Applicant to determine that there will be no adverse effects on fish and shellfish ecology. Of particular concern are elasmobranchs (sharks, skates and rays), which are the most widespread electrosensitive fish group of UK coastal waters. There is also recent evidence (Scott et al., 2018), which is not referenced in the Environmental Statement, to suggest that electromagnetic fields emitted from subsea power cables could impact on the behaviour and physiology of edible crabs. If the project is accepted for examination, we would very much like to see regular updates on the latest understanding of electromagnetic fields and their impacts on marine life, which could develop significantly during the examination. Eastern IFCA defer to Natural England and Cefas for formal conservation advice on impacts of electromagnetic fields and whether precautionary mitigation should be implemented.	The Applicant has considered the potential impacts of electromagnetic fields on fish and shellfish (including elasmobranchs and crustaceans). This has been assessed in ***section 10.2.6*** of ***Chapter 10 Fish and Shellfish Ecology*** (APP-058)***.*** Depending on the species, impacts range from negligible to minor adverse.

No.	Topic / Issue	Applicant Response
008	2.3. Policies GOV2, GOV3 and FISH1 There is potential for construction, decommissioning, and operation and maintenance activities within the cable corridor to result in interference with inshore fishing activities. Within the Eastern IFCA district, the inshore section of the proposed East Anglia TWO export cable corridor is positioned in ICES statistical rectangle 33F1, an important area for potting fisheries targeting crab, lobster and whelk. These fisheries provide a substantial contribution to the local economy, represented by first sale value, shellfish factory sales and tourism revenue. Gillnetting, longlining and trawling also occur to a lesser extent within this area. Most vessels engaged in these fisheries are of the smaller vessel size category (under 10m in length) and primarily target fish species such as sole, plaice, rays, cod and bass. Potential impacts on commercial fisheries include temporary loss of access to fishing ground, increased transit times and changes in the distribution of target species. Although the level of fishing effort that occurs inshore is much less than that undertaken by larger offshore fishing vessels, displacement during construction or maintenance works has the potential to have disproportionately large impacts on the inshore fishing fleet, because of their smaller working range. Eastern IFCA recognise the embedded mitigation, including a commitment to burying offshore cables where possible to reduce surface cable protection, and supports the appointment of a local Fisheries Liaison Officer, use of the Kingfisher Information Service and Notice to Mariners to minimise disruption to fishery stakeholders and other marine users. This communication is extremely important to the livelihoods of fishermen and should be carried out on a continuous basis and well in advance of scheduled works and closures during every phase of development, operation and decommissioning. We would ask that these measures are coupled with regular communication with the relevant fisheries managers – Eastern IFCA out to six nautical miles and the	Noted. The Applicant is committed to continuing effective stakeholder engagement with inshore fishery stakeholders represented in the CFWG. In the event of offshore export cables becoming exposed the applicant will notify mariners by issuing a notice to mariners and by informing Kingfisher Information Service of the location and extent of exposure in accordance with condition 10(12) of the generation DML and condition 6(12) of the transmission DML.

No.	Topic / Issue	Applicant Response
	Marine Management Organisation as well as Defra beyond the Eastern IFCA boundary. Regular communication ensures that mitigation includes the most up-to-date fisheries management measures and advice. It is anticipated that some of the export cable will become unburied during the lifetime of the project due to mobile sediments. Eastern IFCA would like to highlight that if unburied, the presence of subsea cables can result in snagging of fishing gear. This poses a significant safety implication particularly for small vessels operating in the area, could result in semi-permanent exclusion of fishing activities from an area, and is therefore a concern for Eastern IFCA.	
009	2.4. Policy CAB1 Policy CAB1 of the East Marine Plans states, 'preference should be given to proposals for cable installation where the method of installation is burial' (HM Government, 2014). Eastern IFCA supports commitments made by the Applicant to bury, as far as possible, the offshore export cables with target depths of between 1m and 3m, thus minimizing the need for surface-laid cable protection and that extensive site selection work has been undertaken to ensure the routing of the offshore cables avoids the geological Coralline Crag at Thorpeness, thereby avoiding impacts to this feature. However, Eastern IFCA note the project description states that where cables become unburied over time due to mobile sediments, the use of alternative methods of protection may be required. Alternative protection methods could include rock placement, concrete mattressing, the use of grout or sand bags, frond mattressing, and/or the use of uradact or similar shells. These alternative methods are not in keeping with the East Marine Plans. Eastern IFCA have concerns over the requirement for rock armouring cable protection, due to the potential impacts on soft-sediment habitats and on the fishing industry. Recent experience of cable installation in The Wash and North Norfolk Coast Special Area of	With regards to cable burial and the need for alternative methods of protection, a detailed cable laying and cable monitoring plan will be developed pre-construction which will incorporate a cable burial risk assessment. This would ascertain burial depths and cable laying techniques with the objective of achieving optimum cable burial, thereby minimising the lengths of remaining unburied cable that would require protection. This is secured under conditions 17 of the generation DML and 13 of the transmission DML. The cable monitoring plan will be implemented during the operational lifetime of the Project and reviewed as specified within the plan, following cable burials and / or as required by the MMO.

No.	Topic / Issue	Applicant Response
	Conservation (SAC) have shown operation and maintenance requirements have increased significantly beyond initial projections with subsequent increases in seabed disturbance and exclusion of fishing activities where cable cannot be buried. This has further potential to increase in-combination effects with other activities. Every effort should be made to maximise the length of cables that are buried and maintain burial over time. Using cable armouring instead of cable burial increase the likelihood of adverse long-term environmental and fisheries impacts.	

4.7 EDF Energy Nuclear Generation Limited (RR-038)

Table 24 Applicant's Comments on EDF Energy Nuclear Generation Limited's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	EDF Energy Nuclear Generation Limited (NGL) has an interest in these proposals in its capacity as; i) Owner of the land on the north side of Sizewell Gap Road, which is to be used by two of the proposed construction accesses for the installation of the onshore cables for the proposed EA1 North and EA2 Offshore Wind Farms, ii) Operator of the nearby Sizewell B nuclear power station (SZB) and, iii) One of the companies in the same EDF Group as NNB Generation Company (SZC) Limited ("SZC") in which EDF Energy Limited holds a majority shareholding, whose proposals for Sizewell C nuclear power station (SZC) are at an advanced stage. This letter covers the response to the submitted DCOs for and on behalf of NGL, which is the owner and operator of SZB nuclear power station.	Noted. Please see below
002	NGL recognises the importance of the SPR off-shore wind proposals and has no objection to the principle of the proposed wind farms and associated off-shore and on-shore infrastructure. However, as SZB is an operating nuclear power station there are a number of important considerations, set out below, which need to be addressed.	Noted. Please see below
003	Sizewell Gap Road and SZB Sizewell Gap Road is the access road to SZB nuclear power station for staff and forms the principal emergency access route for emergency services and for mobilisation of assets from the Emergency Response Centre at the railhead in Leiston. Any development making use of Sizewell Gap Road needs therefore to demonstrate that it will not compromise the safe operation of current and future nuclear power generation at Sizewell. This will require careful investigation and NGL approval of the detailed design and	Noted. Please see below

No.	Relevant Representation	Applicant's Comments
	implementation of the SPR proposals once these become available. We will therefore need a Protective Provision in this respect.	
004	Emergency Planning As operator of SZB nuclear power station NGL has responsibilities for emergency planning under the Nuclear Site Licence conditions attached to SZB. NGL has to be sure that any development within the emergency planning zone can be accommodated within the off-site emergency plan. Part of the EA1 North and EA2 onshore proposals fall within the Sizewell Emergency Planning Zone, within which the needs of staff, visitors and residents must be addressed from an emergency planning point of view. NGL has discussed this matter with SPR and is happy to continue to share the expertise of its emergency planning team.	Noted. Please see below
005	Operational Impact on Sizewell B Station NGL needs at all times to be able to demonstrate ongoing compliance with the provisions of the Nuclear Site Licence for SZB. It is of crucial importance that SPR has regard to this requirement in their promotion of EA1 North and EA2 through the DCO process. We will therefore continue to expect SPR to cooperate fully and take on board any concerns we have and make changes to the proposals, where appropriate, to ensure there is no adverse impact on the day-to-day running, security and nuclear safety of SZB. NGL will continue to expect to have the opportunity to properly consider and comment on, when available, the technical detail of the SPR proposals, with particular reference to the onshore operational assets which are key to the nuclear safety case for SZB. These assets include the access route to SZB (Sizewell Gap Road) and adjacent utilities, the overhead 400kV lines, the Emergency Response Centre and any aspects of the	From initial communications with EDF Energy in May 2017 and from various communications since, the Applicant is aware of the importance of Sizewell Gap (road) to Sizewell B operations. Through appropriate site selection and project refinement, the Applicant has ensured that interaction with Sizewell Gap has been minimised. It is the Applicant's view however that Protective Provisions are not required in this instance and the Applicant will continue to liaise with Sizewell B, the Office for Nuclear Regulation and the Suffolk Joint Emergency Planning Unit to ensure the appropriate mechanism is taken forward to ensure that construction works do not affect the safe operation of Sizewell B nuclear power station. The Applicant welcomes the ongoing engagement proposed by Sizewell B on this matter.

No.	Relevant Representation	Applicant's Comments
	proposed development which could impact on these key assets eg drainage and methods of work. NGL reserve the right to require Protective Provisions to address the above issues once we have sufficient information on the potential impacts on SZB operations.	
006	National Grid Connections It will be necessary as part of the National Grid connection process for SPR to provide National Grid with further details about the plant and equipment they are proposing to connect, to ensure that the SZB nuclear safety case is not compromised. Clearance of the associated internal EDF Engineering Change proposals will also be required sufficiently prior to any connection and energisation of new SPR assets to the transmission system.	With regard to the connection to the national electricity grid, the Applicant has entered into a grid connection agreement with National Grid. National Grid will design and construct the National Grid substation and the associated connection to the 400kV national electricity grid (also owned and operated by National Grid). Sizewell B also has a grid connection agreement with National Grid to facilitate export of power from Sizewell B. Any wider transmission network considerations are therefore a matter for National Grid to consider as owner and operator of the national electricity network and as counterparty to Sizewell B's grid connection agreement.
007	The proposed SPR export cables would pass to the east of the existing SZB and proposed SZC offshore cooling water structures, before crossing the line of the Greater Gabbard and Galloper cables, turning to the west and making landfall to the north of Thorpeness. As a consequence, marine issues previously raised by us (with reference to SZB and SZC) in connection with the Galloper Wind Farm Project are also relevant here, with the added complexity that the Galloper cables are now in situ.	With regard to the Sizewell B cooling water structures, as set out in ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052) the Order Limits associated with the offshore cable corridor were routed to maintain a minimum separation distance of at least 500m from the Sizewell B cooling water structures. This separation distance is greater than the 300m buffer stipulated in the Galloper Wind Farm Project's protective provisions. The protection sought by Sizewell B has therefore been secured through appropriate routing of the Applicant's Order Limits. The Applicant's comments on Sizewell C's Relevant Representation can be found in ***Table 25*** below.
008	The SPR cable corridor includes within it the majority of the Coraline Crag formation (calcareous sand rock outcrops). In relation to the continued safe operation of SZB, NGL are particularly concerned that the protection afforded to the Sizewell shore by the Coraline Crag	The Applicant recognises the importance of the Coraline Crag (***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052)), specifically its role in underpinning coastal processes along the

No.	Relevant Representation	Applicant's Comments
	between Sizewell and Thorpeness should not be compromised. SPR have been made aware by NGL of the need to avoid potential disturbance to the Coraline Crag and associated seabed morphologies when considering actual cable routes, cable laying methodologies and subsequent maintenance requirements.	coastline which are critical to the water cooling processes for Sizewell B. The Applicant has undertaken extensive work to refine the offshore cable corridor routeing to avoid potential impacts to the Coralline Crag. The preferred solution for installing the offshore export cable is to use trenchless techniques from the onshore landfall location to the south of the Coralline Crag, this may also include using trenchless techniques under a small section of the southern extent of the Coralline Crag. The exit location would therefore be in an area to the south of the Coralline Crag. Further geophysical survey and engineering investigations will be developed to establish the final cable installation location.
009	Protective Provisions should be included in the SPR DCO to ensure that, after SPR have carried out their detailed pre-construction surveys to determine the southern extent of the Coraline Crag formation, this is achieved in practice.	The Applicant considers that there is sufficient protection to coastal process through Requirement 13 of the ***draft DCO*** (APP-023), which requires a landfall construction method statement to have been approved by the relevant planning authority prior to commencement of any part of Work No. 6 and Work No. 8.
010	NGL also require that Protective Provisions should be applied in order to protect the quality of the SZB cooling water intake within the "shallow water box/restriction" area. Protective Provisions In the interests of nuclear safety and to ensure that the proposed developments do not affect the operation of Sizewell B Power Station, the following general Protective Provision is requested to apply to both the EA1N and EA2 proposals: "That no processes or activities shall be carried out which would (a) be incompatible with the nuclear safety arrangements or operations of Sizewell B Power Station; or (b) have an adverse effect on water quality at the intakes of Sizewell B Power	***Chapter 7 Marine Geology, Oceanography and Physical Processes*** (APP-055) states that it is likely that the HDD pop-out location will be to the south of the outcrop of Coralline Crag. This pop-out location (***Figure 7.7*** (APP-109)) significantly reduces the potential for suspended sediment to effect Sizewell B intake structures as the distance between the HDD pop out area and Sizewell B's cooling water infrastructure is increased to approximately 3.5km. This HDD pop-out area is also outside the shallow water box/restriction" area presented within the Galloper Wind Farm Project's protective provisions.

No.	Relevant Representation	Applicant's Comments
	Station." This is in addition to comments above regarding requests for further Protective Provisions.	The Applicant therefore does not consider protective provisions to be necessary.
011	In Combination Effects Whilst it is understood that the start dates for EA1 North and EA2 are indicative, it is likely that construction of EA1N and EA2 would coincide not only with the operation of SZB but also the construction phase of SZC. NGL would expect the relevant Environmental Statements to explain the sufficiency of any mitigations required to address any adverse impacts caused by in combination effects. NGL/SZC has had a number of meetings with SPR to exchange environmental information and assist SPR in this regard.	***Chapter 5, Environmental Impact Assessment Methodology*** (AP-53) of the Applicant's Environmental Statement, sets out how that applicant has assessed cumulative impacts with other projects.
012	Co-operation Given the nature of the proposed projects, we hope that SPR will continue to work closely with us and other stakeholders on its more detailed proposals as it is vital that all the developments are coordinated through their respective planning and construction phases. In principle, we are always be willing to discuss such issues, so long as the important considerations listed above are fully taken into account and we look forward to continuing liaison with SPR as the EA2 and EA1N proposals are refined. However, NGL needs to continue to make a technical objection since SPR's detailed construction proposals are not currently available. This is in order to reserve NGL's position and NGL's right to identify and assess further general and specific issues and resultant requirements and protections based on such further detailed proposals, before NGL is able to withdraw its reasonable technical objection. Given that this is the case any comments made in this letter are subject to further detailed information being provided by SPR in due course.	The Applicant welcomes ongoing discussions with Sizewell B and confirms our intention to seek a Statement of Common Ground with Sizewell B.

4.8 EDF NNB Generation Company (SZC) Limited (RR-037)

Table 25 Applicant's Comments on EDF NNB Generation Company (SZC) Limited's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	NNB Generation Company (SZC) Limited (SZC Co.) is in the advanced stages of preparing an application for development consent for a new nuclear power station at Sizewell, Sizewell C. Sizewell C will be located in the vicinity of the EA2 and EA1N proposals and as such SZC Co. has an interest in the proposals for both projects. SZC Co. recognises the importance of off-shore wind and has no objection to the principle of the proposed wind farms and associated off-shore and on-shore infrastructure. However, as Sizewell C is proposed to be constructed in the vicinity of EA1N and EA2 and the operational power station would be located at Sizewell there are a number of important considerations, set out below, which need to be taken into account.	Noted. Please see below
002	Sizewell Gap Road and Sizewell C During the early years of construction of Sizewell C, Sizewell Gap Road and Lover's Lane are intended to be used to transport workers and freight to and from the main development site. Once a separate access to the main development site is achieved the use of Sizewell Gap Road and Lover's Lane will decrease, however they will both still be required to deliver the development. In the operational phase of Sizewell C, Sizewell Gap Road would be used as a secondary access road to the power station. This would be particularly important for emergency services and the mobilisation of assets from the Emergency Response Centre at the railhead in Leiston. Any development making use of the Sizewell Gap Road and/or Lover's Lane would need to demonstrate that use of the roads does not	The Applicant notes that the Sizewell C's application was not submitted at the time of the Applicant's application. The Sizewell C application has now been submitted to the Planning Inspectorate but at the time of writing was not available for review. The Applicant expects that Sizewell C will have taken into account the Projects' published traffic flow figures within the Sizewell C cumulative traffic impact assessment and will continue to do so in the development of any subsequent construction or traffic management systems to ensure the Project is not compromised due to Sizewell C's construction or operation.

No.	Relevant Representation	Applicant's Comments
	compromise safety or the safe construction or operation of Sizewell C.	
003	Emergency Planning As operator of the Sizewell C site, SZC Co. will have responsibilities for emergency planning under the Nuclear Site Licence conditions attached to Sizewell C. SZC Co. will have to be sure that any development within the emergency planning zone can be accommodated within the off-site emergency plan. Part of the EA1 North and EA2 onshore proposals fall within the Sizewell Emergency Planning Zone, within which the needs of staff, visitors and residents must be addressed from an emergency planning point of view. SZC Co. and EDF have discussed this matter with SPR and is happy to continue to share the expertise of its emergency planning team.	It is noted that as Sizewell C is not an operational nuclear power station, there is no Operators Emergency Plan in place for Sizewell C. The Applicant will comply with the Sizewell Operators Emergency Plan from its effective date and welcomes the opportunity to contribute to the Sizewell Operators Emergency Plan in due course, such contribution will reflect the construction or operational status and requirements of the Project. Whilst the Applicant will continue to engage with Sizewell C, it is noted that the Sizewell Operators Emergency Plan is not yet in place.
004	Operational Impact on Sizewell C Station a) SZC Co. will need, at all times, to be able to demonstrate on going compliance with the provisions of its Nuclear Site Licence for SZC. It is of crucial importance that SPR has regard to this requirement in their promotion of EA1 North and EA2 through the DCO process. We therefore continue to expect SPR to engage in discussions to ensure, where appropriate, there would be no adverse impact on the day-to-day running, security and nuclear safety of Sizewell C once it is operational. b) SZC Co. will continue to expect to have the opportunity to properly consider and comment on, when available, the technical detail of the SPR proposals, with particular reference to the onshore operational assets which are key to the nuclear safety case for Sizewell C. These assets include the access route to Sizewell C (Sizewell Gap Road) and adjacent utilities, the overhead 400kV lines and any	Please see above

No.	Relevant Representation	Applicant's Comments
	aspects of the proposed development which could impact on these key assets, eg drainage and methods of work.	
004	Although the proposed SPR export cables would pass to the east of the proposed Sizewell C offshore cooling water structures, the Order Limits of the proposed development will overlap with the Order Limits of the proposed Sizewell C development. Protective provisions should be included to protect Sizewell C and its associated development through the construction and operation of the new nuclear power station, particularly the cooling water infrastructure.	As noted in ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052), the Applicant's Order Limits associated with the offshore cable corridor were routed to maintain a minimum separation distance of at least 500m from the proposed Sizewell C cooling water structures (as presented with the Sizewell C Stage 2 pre-application consultation, published on 23-11-16). The Applicant undertook a significant amount of survey and offshore cable routing investigations on this basis. It is noted that the Sizewell C Stage 3 and Stage 4 pre-application consultations (published 4th January 2019 and 18th July 2019 respectively) subsequently presented a significant increase to the proposed Sizewell C offshore development area, to the extent that it now overlaps with the proposed boundary of the Applicant's Order Limits. The Applicant does not consider it necessary to enter a protective provision to protect the Sizewell C cooling water infrastructure given the above chain of events and given the earlier submission of the Applicant's application. The Applicant is however committed to ongoing engagement with Sizewell C to ensure our respective projects can co-exist.
005	Further, the proposed SPR export cables would cross the line of the Greater Gabbard and Galloper cables before turning to the west and making landfall to the north of Thorpeness. As a consequence, marine issues previously raised by EDF (with reference to Sizewell B and Sizewell C) in connection with the Galloper Wind Farm Project	Please see below.

No.	Relevant Representation	Applicant's Comments
	are also relevant here, with the added complexity that the Galloper cables are now in situ.	
006	The SPR cable corridor includes within it the majority of the Coraline Crag formation (calcareous sand rock outcrops). In relation to the construction and operation of Sizewell C, SZC Co. are particularly concerned that the protection afforded to the Sizewell shore by the Coraline Crag between Sizewell and Thorpeness should not be compromised. SPR have been made aware of the need to avoid potential disturbance to the Coraline Crag and associated seabed morphologies when considering actual cable routes, cable laying methodologies and subsequent maintenance requirements. Protective provisions should be included in the SPR DCO to ensure that, after SPR have carried out their detailed pre-construction surveys to determine the southern extent of the Coraline Crag formation, this is achieved in practice.	The Applicant recognises the importance of the Coraline Crag (***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052)), specifically its role in underpinning coastal processes along the coastline. In response to this, the Applicant has undertaken extensive work to refine the offshore cable corridor routeing to avoid potential impacts to the Coralline Crag. The preferred solution for installing the offshore export cable is to use trenchless techniques from the onshore landfall location to the south of the Coralline Crag, this may also include using trenchless techniques under a small section of the southern extent of the Coralline Crag. The exit location would therefore be in an area to the south of the Coralline Crag. Further geophysical survey and engineering investigations will be developed to establish the final cable installation location. The Applicant considers that there is sufficient protection to coastal process through Requirement 13 of the ***draft DCO*** (APP-023), which requires a landfall construction method statement to have been approved by the relevant planning authority prior to commencement of any part of Work No. 6 and Work No. 8.
007	Protective Provisions In the interests of nuclear safety and to ensure that the proposed developments do not affect the construction and operation of Sizewell C, SZC Co. will require provisions to be included within the DCOs for both wind farms.	It is the Applicant's view that Protective Provisions are not required in this instance.

No.	Relevant Representation	Applicant's Comments
008	In Combination Effects Whilst it is understood that the start dates for EA1 North and EA2 are indicative, it is likely that construction of EA1N and EA2 would coincide with the construction phase of Sizewell C. SZC Co. acknowledges that the Environmental Statements submitted with both applications consider the in combination effects and SZC Co. has had a number of meetings with SPR to exchange environmental information and assist SPR in this regard.	Noted. Please see above.
009	Co-operation with SZC Co. Given the nature of the proposed projects, we hope that SPR will continue to work closely with SZC Co. and other stakeholders on its more detailed proposals as it is vital that all the developments are coordinated through their respective planning and construction phases. In principle, SZC Co. will always be willing to discuss such issues, so long as the important considerations listed above are fully taken into account.	Whilst it is noted that the Sizewell C project is not yet consented nor operational, and that the Applicant's Project is itself a Nationally Significant Infrastructure Projects, the Applicant will continue to engage with Sizewell C to ensure our respective projects can co-exist. The Applicant welcomes ongoing discussions with Sizewell C and confirms our intention to seek a Statement of Common Ground with Sizewell C.

4.9 Environment Agency (RR-039)

Table 26 Applicant's Comments on Environment Agency's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	In summary we are broadly satisfied with the proposals. We have raised a flood risk issue in respect of pre-construction highways works, and have proposed some points of clarification in respect of groundwater protection. We have also highlighted our permitting requirements, and requested to be consulted on all relevant management plans and method statements proposed to be prepared post consent. We note that the applicant is not seeking to dis-apply environmental permits. We would like to remind the applicant that it will be necessary to apply for and have in place all necessary permits prior to any works commencing. We look forward to continuing to work with the applicant to resolve the matters outlined within our Relevant Representation to ensure the best environmental outcome for the project.	Concerns in relation to the matters raised by the Environment Agency within their Relevant Representation were discussed during initial Statement of Common Ground (SoCG) meetings on 6th February 2020 and 28th February 2020. Agreement was reached on the majority of matters during the SoCG process and an early draft SoCG has been submitted to the ExA on the 11th June 2020 (document reference ExA.SoCG-3.D0.V1).
002	Regarding on-shore works and road modifications, section 6.7.3.3.2 outlines the offsite highway improvements required as part of the scheme. These are stated to include structural works to Marlesford bridge, where the A12 crosses the River Ore, to accommodate Abnormal Indivisible Loads; and an associated temporary laydown area on the northside of the A12/west or the River Ore.	Noted.
003	The River Ore is a statutory main river at this location. Therefore a flood risk activity permit under the Environmental Permitting (England & Wales) Regulations 2016 will be required from the Environment Agency prior to any works being carried out in, on, over, under or within 8m of the top of the bank. Permit conditions	The Applicant will undertake Environmental Permit applications post-consent for all activities requiring a permit as and when required. The Applicant would seek approval of permits required prior to the commencement of any such activities.

No.	Relevant Representation	Applicant's Comments
	are likely to include registering with the Environment Agency's flood warning service.	
004	The associated temporary laydown area as indicated in figure 6.6k, is in an area shown by the Flood Map for Planning to be Flood Zone 3 (high risk). Furthermore, the Suffolk Coastal and Waveney District Council Level 1 Strategic Flood Risk Assessment (SFRA) (April 2018) shows the majority of the area to be within the functional floodplain (Flood Zone 3b). This is land classified as having a 5% Annual Exceedance Probability (AEP) of flooding (also known as a 1 in 20 year return period). This site has not been considered within the Environmental Statement Volume 3 Appendix 20.3 Flood Risk Assessment.	The Applicant notes that the requirement for and extent of any works anticipated at Work No. 37 is unknown at this stage and subject to further inspections of the bridge. The reason for not assessing water resources and flood risk impacts at Work No. 37 (Marlesford Bridge) is provided within ***Section 20.3.1.1*** of ***Chapter 20 Water Resources and Flood Risk*** of the Environmental Statement (ES) (APP-068). Works at Work No. 37 form part of the onshore preparation works, which take place prior to construction. An inspection of Marlesford Bridge is proposed to be undertaken post-consent. Results of an inspection will inform requirements for reinforcement / strengthening works, which will in turn inform the specification of the temporary laydown area indicated in ***Figure 6.6k*** (APP-101).
005	Document 6.1.20 Environmental Statement Volume 1 Chapter 20 Water Resources and Flood Risk discusses the proposed offsite highway improvements, including the works to Marlesford bridge, at Section 20.3.1.1. It is highlighted that these onshore preparation works are not considered as part of the assessment of construction impacts in section 20.6; but that due to the small scale and temporary nature, along with adherence to best practice measures in Table 20.3, there will be no adverse impacts on surface water bodies (including through increased sediment supply or accidental release of contaminants) or changes to surface water run-off. No further detail on how the temporary laydown area will be used is provided within the application. We are generally satisfied with the measures proposed to protect water quality during the works (see also section 5 of this response), but further detail is required	The Applicant notes that the requirement for and extent of any works anticipated at Work No. 37 is unknown at this stage and subject to further inspection of the bridge. Works at Work No. 37 (Marlesford Bridge) may form part of the onshore preparation works, which would take place prior to construction. An inspection of Marlesford Bridge is proposed to be undertaken post-consent. Results of an inspection will inform requirements for reinforcement / strengthening works, which will in turn inform the specification of the temporary laydown area indicated in ***Figure 6.6k*** (APP-101). As agreed with the Environment Agency during the SoCG discussions, the Applicant will undertake a Flood Risk Assessment of works at Work No. 37 as part of the necessary Environmental Permit application for prescribed activities at Marlesford Bridge.

No.	Relevant Representation	Applicant's Comments
	due to the flood risk at the site. The use of the site as a laydown area will only be acceptable if it can be confirmed that there will be no land raising or built development on site. The nature and duration of use should also be confirmed.	The Applicant welcomes the Environment Agency's approval of the proposed mitigation measures in relation to water quality presented within ***Table 20.3*** of ***Chapter 20 Water Resources and Flood Risk*** (APP-068).
006	The landfall location for the export cables is proposed to be just to the north of Thorpeness, Suffolk. This area does not include coastal sea defences maintained by the Environment Agency. East Suffolk District Council manage the frontage at this location.	Noted. The Applicant has undertaken consultation with East Suffolk Council (formerly Suffolk Coastal and Waveney District Councils) throughout the pre-application stage (including Section 42 consultation) and would continue to liaise with the Council post-consent through the discharge of DCO requirements process on all relevant matters.
007	We can confirm that we are satisfied with the general approach and methodology for looking at the impacts on near-shore marine water quality and accept the findings that baseline water and sediment quality of the study area is generally good. We agree that impacts are minor or negligible.	The Applicant welcomes the Environment Agency's representation on the assessment methodology adopted and conclusions drawn for near-shore marine water and sediment quality.
008	With reference to Table 18.2 (Embedded mitigation), we are generally satisfied with the measures proposed to protect groundwater. For clarity, the text in respect of groundwater quality under 'Landfall and Onshore Cable Corridor' should be amended to: A hydrogeological risk assessment (HRA) should be produced pre-construction to ensure protection of groundwater abstractions where construction activity, including HDD and piling, are undertaken within sediments which form or are in hydraulic continuity with Secondary Aquifers (superficial deposits) or Principal Aquifer (Crag).	The Applicant welcomes the Environment Agency's comments regarding the proposed mitigation measures presented within ***Table 18.2*** of ***Chapter 18 Ground Conditions and Contamination*** of the ES (APP-066). The Applicant accepts the Environment Agency's request for a commitment to prepare hydrogeological risk assessments where appropriate. As was agreed at the initial SoCG meetings this commitment will be incorporated within an updated Outline Code of Construction Practice, which is in turn secured through the relevant DCO Requirement. An early draft SoCG has been submitted to the ExA on 11th June 2020 (document reference ExA.SoCG-3.D0.V1).
009	Following on from the above, we note Table 18.2 states that it is the Landfall Construction Method Statement that will include and address issues arising from the detailed HRA for the Landfall and Onshore Cable Corridor. The HRA may highlight the need for further method statements to protect groundwater at locations	The Applicant will ensure that the Groundwater Protection Method Statement addresses all onshore works, where necessary and required.

No.	Relevant Representation	Applicant's Comments
	elsewhere along the route away from the landfall site (see comments under paragraph 4.7, below). Therefore, we would suggest that the Groundwater Protection Method Statements proposed to form part of the Code of Construction Practice should address, as necessary, work at the substation sites, but also at landfall and along the onshore cable corridor.	
010	We welcome the confirmation in Table 18.2 that the assessment and methods proposed to avoid contamination of the groundwater are to be agreed with the Environment Agency. There should be a clear reference in the Outline Code of Construction Practice that all HRAs are to be included along with subsequent Groundwater Protection Method Statements as part of the Pollution Prevention Response Plan; and that the Environment Agency is to review and agree these documents prior to the Code of Construction Practice for each stage of works being agreed.	The Applicant accepts the Environment Agency's recommendation to update the final CoCP with a reference to include hydrogeological risk assessments with Groundwater Protection Method Statements and that these documents will be prepared in consultation with the Environment Agency prior to submission to the relevant planning authority for approval of the final CoCP for each stage of works.
011	In addition to the Pollution Prevention Response Plan, it should also be confirmed that we are to review the draft Materials Management Plans and Site Waste Management Plans.	The Applicant shall ensure the Environment Agency are consulted on the draft Materials Management Plan and Site Waste Management Plans prior to submission of these documents to the relevant planning authority for approval.
012	Regarding Table 18.5 Data Sources Features, the Environment Agency holds details of licensed abstractions for public as well as private water supply.	Noted.
013	Paragraph 55 records the presence of 2 licenced groundwater abstractions and one licenced surface water abstraction within the study area. Our records show that there is also an unlicensed abstraction in the study area at TM 4476 6034 ("Well opposite Ivy Cottage, Aldringham"). East Suffolk District Council should be contacted regarding details for this abstraction.	The Applicant has contacted East Suffolk Council to request data of the abstraction at TM 4476 6034 ("Well opposite Ivy Cottage, Aldringham") and will discuss this matter further through the SoCG process.

No.	Relevant Representation	Applicant's Comments
014	All impacts on shallow Secondary Aquifer superficial deposits and Principal Crag aquifer need to be considered. HRAs, and potentially method statements, will be required for all activities with the potential to alter groundwater flow within an SPZ and within close proximity of any groundwater abstraction (see also comments in paragraph 5.14 of this response).	The Applicant proposes mitigation measures within ***Table 18.2*** of ***Chapter 18 Ground Conditions and Contamination*** of the ES (APP-066). The Applicant accepts the Environment Agency's request for a commitment to prepare a hydrogeological risk assessment where appropriate. As was agreed at the initial SoCG meetings this commitment will be incorporated within an updated Outline Code of Construction Practice, which is in turn secured through the relevant DCO Requirement. An early draft SoCG has been submitted to the ExA on the 11th June 2020 (document reference ExA.SoCG-3.D0.V1).
015	Document 6.1.20 Environmental Statement Volume 1 Chapter 20 Water Resources and Flood Risk 5.1 In considering fluvial flood risk, Table 20.3 states "All materials to be stored outside of areas at higher risk of flooding (e.g. Flood zones 2 and 3) as far as is reasonably practicable". Aside from the works to Marlesford bridge, the on-shore cable corridor predominately falls within Flood Zone 1 (Low Risk). The only exception being the relatively narrow floodplain associated with the Thorpeness Hundred river to the south of Aldringham, where the route crosses that watercourse. Therefore, we would expect there to be no storage of materials in Flood Zones 2 or 3 throughout the cable route.	The Applicant will add a commitment for no storage of materials within Flood Zone 2 or Flood Zone 3 along the onshore cable route within the final CoCP. As per the draft SoCG this commitment will be incorporated within the final Code of Construction Practice, which is in turn secured through the relevant DCO Requirement. An early draft SoCG has been submitted to the ExA on the 11th June 2020 (document reference ExA.SoCG-3.D0.V1).
016	We are generally satisfied with the embedded mitigation measures as outlined in Table 20.3 (but see further minor points below). We would want the opportunity to review and comment on a number of the proposed management plans and method statements while they are being prepared and prior to the planning authority approving the Code of Construction Practice (CoCP) for each stage of works. This specific provision has not yet been included, and we have provided further detail on this in our comments on the Outline Code of Construction Practice below.	The Applicant shall ensure the Environment Agency are consulted on the relevant management plans and method statements produced as part of the discharge of DCO Requirements process prior to submission of these documents to the relevant planning authority for approval.

No.	Relevant Representation	Applicant's Comments
017	Table 20.3 states that surface water run-off during both construction and operation will be discharged at a rate to be agreed in consultation with the Lead Local Flood Authority (LLFA) (Suffolk County Council) and the Environment Agency. Whilst we are concerned to ensure that any run-off does not affect the quality of the receiving ground or surface waterbodies (including through increased sediment supply), discharge run-off rates are the sole responsibility of the LLFA.	The Applicant will address this within an updated Outline Code of Construction Practice.
018	In respect of foul drainage during construction, it is noted that mains will be used where possible, or if not available a septic tank. The proposed approach should be included as part of the surface water and drainage management plan with the CoCP for each stage. We would want to review those documents. For the substations during operation, it is again stated foul drainage will be either to mains or septic tank. Mains drainage should always be the first preference, followed by a package treatment plant; septic tanks may not be acceptable in certain locations. Where a form of non-mains foul drainage is proposed, an Environmental Permit from the Environment Agency may be required.	The Applicant's approach to foul drainage during construction, including mitigation and control measures, will be detailed within the final CoCP and accompanying Surface Water and Drainage Management Plan. Prior to submission of these documents to the local planning authority for approval, the Environment Agency will be consulted on the content of these documents with regard to foul drainage. The decision for foul drainage options during the operation phase will be made post-consent during the detailed design phase. However, the Applicant has noted the Environment Agency's comments in this regard.
019	Table 20.3 mentions 'Local authority' sewers; the applicant will need to discuss availability with the water company (Anglian Water) as they are main sewerage company in this area. If mains sewers are used the applicant will need to confirm with Anglian Water that there is capacity in the sewerage network and at treatment facility for all flows arising during the construction and operational phases of the scheme.	Should a decision be made post-consent to connect into the mains sewer network, the Applicant will consult Anglian Water regarding capacity during the construction and operation phase, as well as tying-in to existing infrastructure.
020	Regarding section 20.5.2 Existing Environment – Groundwater; due to the depth of the chalk aquifer, the Crag is considered to be the Principal Aquifer of concern in the study area. The Crag is	Future documentation produced by the Applicant will ensure it adopts the term 'Secondary Aquifer' instead of 'Minor Aquifer'.

No.	Relevant Representation	Applicant's Comments
	overlain by Secondary Aquifer superficial deposits of high vulnerability which are often in hydraulic continuity with the Crag. Please also note that the term 'Minor Aquifer' is old nomenclature and has been replaced by the term 'Secondary Aquifer'.	
021	Table 20.12, Sensitivity and Value of Receptors, could also include reference to Secondary Aquifers supporting private supply.	The Applicant notes this request from the Environment Agency and can confirm that the glacial deposits that underly much of the onshore development area (the uppermost superficial layers) support Secondary Aquifers (A, B and undifferentiated), which is acknowledged in ***section 20.5.2***. We have considered these alongside the deeper Principal Aquifers in the single "groundwater" receptor. We have included Secondary Aquifers in the definitions of receptor sensitivity (***Table 20.7***), and also mention public water supply in the definitions of receptor sensitivity (***Table 20.8***). As such, the Applicant considers that inclusion of a reference to Secondary Aquifers supporting private supply could be included in ***Table 20.12*** but that this would make no material difference to the impact assessment. Private water supplies are referenced in ***section 20.6.1.4***.
022	5.8 Potential impacts during operation and additional mitigation measures are further discussed in section 20.6.1. In summary, we are generally satisfied with the assessment of impacts and the additional mitigation proposed, subject to a further review of the detailed method statements.	The Applicant shall ensure the Environment Agency are consulted on the relevant management plans and method statements produced as part of the discharge of DCO Requirements process prior to submission of these documents to the relevant planning authority for approval.
023	Regarding specifically the crossing of the Hundred River, we are generally supportive of the proposed mitigation and welcome the commitment to consider localised improvements to the geomorphology and in-channel habitats as part of site restoration works.	The Applicant welcomes the Environment Agency's support for the proposed mitigation for the crossing of the Hundred River presented within the application.

No.	Relevant Representation	Applicant's Comments
024	The proposed works involve damming which also has the potential to affect licenced water abstractors. There is one surface water licence (7/35/03/*S/0092/R01) which looks to be located within the order limits and is possibly referred to in section 20.5.2. Only groundwater abstractions are shown in Figure 20.3. This licence is an agricultural winter reservoir fill licence. The proposed works should not affect a right to abstract and/ or cause derogation to licenced water quantities. The timing of the works will therefore be significant, both in respect of water resources and effects on species. We have provided further comments on timings in respect of on-shore ecology, below.	Any over-pumping at the Hundred River crossing (Work No. 19) would be a non-consumptive operation (i.e. no transmission loss). The Applicant has agreed to including a commitment within the final CoCP with words to this effect. In addition, the Applicant has agreed to consult with relevant abstraction holder(s) about any works at the Hundred River which have the potential to disrupt flow.
025	We note that a watercourse crossing method statement, including the precise working methodology, is to be prepared as part of the Code of Construction Practice. This should be agreed with the Environment Agency, and should include any localised improvements. As highlighted, an Environmental Permit will also be required.	The Applicant shall ensure the Environment Agency are consulted on the watercourse crossing method statement during its production as part of the discharge of DCO Requirements process prior to submission to the relevant planning authority for approval. The Applicant will undertake Environmental Permit applications post-consent for all activities requiring a permit as and when required. The Applicant would seek approval of permits required prior to the commencement of any such activities.
026	Given the proposal to dam the river, an Impoundment licence may also be required from the Environment Agency. This will be dependent on the detail of how the works will be undertaken and whether the works can be considered to be a 'low risk' activity. Factors to be considered will include the duration and timings of the works, and the potential impacts on any other water users, rights or the environment. We are satisfied that this can be considered post DCO consent, potentially as part of the watercourse crossing method statement. However, the applicant	Where required, the Applicant will apply for an Impoundment Licence from the Environment Agency in relation to damming the Hundred River. As with permit applications, any application for such a licence will be made post-consent when more information is available during the detailed design stage. The Applicant notes the determination timeframes in relation to an Impoundment Licence application.

No.	Relevant Representation	Applicant's Comments
	should be aware that if required, an Impoundment licence application can take up to 4 months to determine.	
027	Similarly, if an abstraction licence is required (for abstracting water for construction works or for certain dewatering activities), there should be early consultation with us. Consultation with Essex and Suffolk Water regarding any impact on their compensation discharge into the Hundred River would also be advised.	Where the requirement for an Abstraction Licence exists, the Applicant will ensure early engagement with the Environment Agency is undertaken. The Applicant would seek to consult with Essex and Suffolk Water where any potential impact upon their compensation discharge into the Hundred River is identified.
028	In respect of groundwater, although a significant impact is unlikely, the additional mitigation measures described in 20.6.1.3.2 should specifically require an HRA to be provided and reviewed by the Environment Agency before works can proceed where works are to be undertaken within 50 m of any known groundwater abstractions/an abstraction identified (licensed or unlicensed) during landowner consultation.	As per the SoCG discussions, the Environment Agency requested the distance of this commitment be extended to 250m of any known groundwater abstraction. This commitment will be incorporated within an updated ***Outline Code of Construction Practice*** (APP-578), which is in turn secured through the relevant DCO Requirement. An early draft SoCG has been submitted to the ExA on 11th June 2020 (document reference ExA.SoCG-5.D0.V1). The Applicant will ensure the Environment Agency are provided an opportunity to review any hydrogeological risk assessments prepared alongside the Groundwater Protection Method Statement, prior to the final approval of the CoCP by the Local Planning Authorities.
029	Document 6.3.20.4 Environmental Statement Volume 3 Appendix 20.4 Water Framework Directive Compliance Assessment 6.1 Currently we are generally satisfied with this document, but would wish to make the following observations. In respect of Table A20.4.2, this should include the potential impact of the watercourse crossing works to affect fish migration and general river connectivity depending upon the time of year the work is undertaken. Fish specifically, as a quality element, should be considered.	The Applicant notes an assessment of migratory fish and river connectivity was not undertaken during the pre-application stage. Given the precise timing of the Hundred River crossing works are not known at this stage, the Applicant anticipates an assessment of impacts on fish migration and river connectivity will be required to support the application for an Impoundment Licence (or another relevant permit application) post-consent. The Applicant will seek to minimise the amount of time the river is obstructed, and any measures proposed to mitigate

No.	Relevant Representation	Applicant's Comments
		impacts upon fish migration will be agreed with the Environment Agency at this stage. The Applicant has committed to pre-construction surveys for eel and fish following a request from the Environment Agency, which will identify the presence and absence of species in turn informing the assessment and any such mitigation measures. As was agreed at the initial SoCG meetings this commitment will be incorporated within an updated Outline Landscape and Ecological Management Strategy, which is in turn secured through the relevant DCO Requirement. An early draft SoCG has been submitted to the ExA on 11th June 2020 (document reference ExA.SoCG-3.D0.V1).
030	Table A20.4.5 Onshore Construction Activities: Scoping Questions for River Water Bodies. We are satisfied with the conclusions made but would highlight that consideration of impact should usually consider not only the footprint of the activity relative to the size of the waterbody, but also the nature of the impact relative to key local receptors (e.g. fish spawning habitat) and upon ecological connectivity. Moreover, the specific approach taken risks understating the relative importance of the watercourse itself. A truer reflection of potential impact would be an assessment of the proportion of active channel (e.g. river channel, riparian corridor, floodplain) affected.	The Applicant notes the Environment Agency's comments with regard to additional considerations when assessing impacts. This was discussed during an initial SoCG meeting with the Environment Agency on 28th February 2020 but, as per the SoCG, it was agreed that no subsequent action to update or clarify the assessment of impacts was required.
031	Regarding Section 20.6.4 Installation of Watercourse Crossings; the timing of the temporary works could be key with respect to any impacts, and the coarse fish spawning season (March – June) should be avoided. A control measure to this affect should be included and the issue addressed as part of the watercourse crossing method statement.	The precise timing of the Hundred River crossing works is not known at this stage, although an indicative construction programme is presented within ***Chapter 6 Project Description*** (APP-054). The construction programme will be refined post-consent during the detailed design stage and the Applicant will seek to avoid crossing the Hundred River during the fish spawning season where possible.

No.	Relevant Representation	Applicant's Comments
		The Applicant anticipates an assessment of impacts on fish migration will be required to support the application for an Impoundment Licence (or another relevant permit application) post-consent. The Applicant will seek to minimise the amount of time the river is obstructed, and any measures proposed to mitigate impacts upon fish migration will be agreed with the Environment Agency at this stage. The Applicant has committed to pre-construction surveys for eel and fish following a request from the Environment Agency, which will identify the presence and absence of species in turn informing the assessment and any such mitigation measures. As was agreed at the initial SoCG meetings this commitment will be incorporated within an updated Outline Landscape and Ecological Management Strategy, which is in turn secured through the relevant DCO Requirement. An early draft SoCG has been submitted to the ExA on 11th June 2020 (document reference ExA.SoCG-3.D0.V1).
032	We would also highlight for awareness that the third cycle River Basin Management Plan is due to be published in 2021, which will see revised WFD classifications. The scheme should consider the most recent River Basin Management Plan at the time of construction. It would be beneficial to also detail the overall WFD waterbody status objective for future cycles, not just the current status at the time of construction. This could again be addressed in the watercourse crossing method statement.	The Applicant will ensure all information available at the time of preparing management plans (including the watercourse crossing method statement) are used to inform the documents produced during the discharge of DCO Requirements process. This will include the most up to date River Basin Management Plan.
033	Document 6.1.22 Environmental Statement Volume 1 Chapter 22 Onshore Ecology 7.1 Section 22.6.1.7 considers the impact of the proposed works on watercourses and ponds, and the proposed mitigation measures in respect of ecology. We note the data in respect of fish populations, but would suggest that the timing of	The precise timing of the Hundred River crossing works is not known at this stage, although an indicative construction programme is presented within ***Chapter 6 Project Description*** (APP-054). The construction programme will be refined post-consent during the detailed design stage and the Applicant will seek to avoid crossing the Hundred River during the fish spawning season where possible.

No.	Relevant Representation	Applicant's Comments
	the works to avoid possible impacts on fish spawning should be a further consideration at the detailed stage.	The Applicant anticipates an assessment of impacts on fish migration will be required to support the application for an Impoundment Licence (or another relevant permit application) post-consent. The Applicant will seek to minimise the amount of time the river is obstructed, and any measures proposed to mitigate impacts upon fish migration will be agreed with the Environment Agency at this stage. The Applicant has committed to pre-construction surveys for eel and fish following a request from the Environment Agency, which will identify the presence and absence of species in turn informing the assessment and any such mitigation measures. As was agreed at the initial SoCG meetings this commitment will be incorporated within an updated Outline Landscape and Ecological Management Strategy, which is in turn secured through the relevant DCO Requirement. An early draft SoCG has been submitted to the ExA on 11th June 2020 (document reference ExA.SoCG-3.D0.V1).
034	This document states that all ecological mitigation measures in respect of watercourses will be secured within the Ecological Management Plan. We would wish to see all measures to mitigate impacts on the Thorpeness Hundred river (ecological, water resources and water quality), included within the watercourse crossing method statement prepared as part of the Code of Construction Practice.	The Applicant will ensure that all measures to mitigate impacts on the Hundred River are included within the watercourse crossing method statement, as part of the final CoCP.
035	Document 6.3.22.5 Environmental Statement Volume 3 Appendix 22.5 Water Vole and Otter Presence/Absence Survey Report 8.1 Water vole and otter surveys were undertaken during a prolonged period of uncharacteristically dry weather. As such, several watercourses that were not viable or utilised by these species during the survey period could be in the future, particularly	The Applicant notes that pre-construction surveys for otter and water vole are missing from the ***Outline Landscape and Ecological Management Plan*** (APP-584). The Applicant agreed to undertaking pre-construction surveys for otter and water vole. As was agreed at the initial SoCG meetings this commitment will be incorporated within an updated Outline Landscape and Ecological Management Strategy, which is in turn secured through the relevant DCO Requirement. An early draft SoCG has been

No.	Relevant Representation	Applicant's Comments
	following periods of wet weather. As specified, final surveys must therefore be undertaken before the commencement of any works.	submitted to the ExA on 11th June 2020 (document reference ExA.SoCG-3.D0.V1).
036	We note that the final Code of Construction Practice is to be secured through Requirement 22. We are satisfied that the Environment Agency is not a named consultee in respect of that Requirement. However, we do want to see the Outline Code of Construction Practice amended to include specific reference to the Environment Agency being consulted on some of the draft management plans and method statements that will make up the final CoCP. We would want to review and approve: • surface water & drainage management plan; • flood management plan; • site waste management plan; • materials management plan; • pollution prevention & response plan including groundwater protection method statements & construction method statements for the protection of onshore water; and • watercourse crossing method statement	The Applicant will amend the ***Outline Code of Construction Practice*** (APP-578) to specify the Environment Agency as a named consultee in the production for the following management plans: • surface water and drainage management plan; • flood management plan; • site waste management plan; • materials management plan; • pollution prevention & response plan including groundwater protection method statements & construction method statements for the protection of onshore water; and • watercourse crossing method statement.
037	Additionally, we have the following specific comments on the OCoCP at this time. We note in section 3.2 Construction Site Layout and Housekeeping, that when working in or adjacent to areas of Flood Zone 2 or 3 additional pollution prevention and flood awareness measures will be required. We support this approach and would expect to see these measures included in the appropriate	The Applicant is currently in consultation with the Environment Agency through the SoCG process and will communicate any commitments for no storage of materials and machinery within Flood Zone 2 or Flood Zone 3 along the onshore cable route within the final CoCP.

No.	Relevant Representation	Applicant's Comments
	management plans and method statements. We would however highlight that section 3.2 does not require the storage of debris or machinery to be outside the floodplain. This should be specified given that there is only one small section of Flood Zone 2 and 3 within the onshore cable corridor route.	
038	We note and welcome the measures proposed in section 5 regarding Pollution Prevention and Response. It is stated that emergency response plans may be tested on-site in consultation with the Local Planning Authority. The Environment Agency should be included.	The Applicant will update the Outline Code of Construction Practice to ensure the Environment Agency are a consultee and included within emergency response plan tests.
039	The pollution prevention and response plan in section 5 is to include a groundwater protection method statement. Section 6 (Contaminated Land and Groundwater), refers to the need for hydrogeological risk assessments (HRA) to ensure the protection of groundwater. Therefore, there seems to potentially be some uncertainty as to where and how the measures in section 5 and in section 6 will be secured. Additionally, while the proposed approach for managing unexpected contamination is welcomed, it is not clear specifically where this would be captured. Delivery of all control measures should therefore be further clarified in the OCoCP.	The Applicant proposes mitigation measures within ***Table 18.2*** of ***Chapter 18 Ground Conditions and Contamination*** of the ES (APP-066). The Applicant accepts the Environment Agency's request for a commitment to prepare hydrogeological risk assessments where appropriate. As was agreed at the initial SoCG meetings this commitment will be incorporated within an updated Outline Code of Construction Practice, which is in turn secured through the relevant DCO Requirement. An early draft SoCG has been submitted to the ExA on 11th June 2020 (document reference ExA.SoCG-3.D0.V1).
040	The relevant section of the CoCP should also include how groundwater flow to abstractions and dependent surface water features will be protected during construction. We would also highlight that an HRA and/or a piling risk assessment are required for any HDD or piling works within or outside a groundwater source protection zone. Subsequent method statements will be required as necessary. Documents should be provided for our review and approval.	The Applicant notes the Environment Agency's requests to include measures to protect groundwater flow to abstractions and dependent surface water features within the final CoCP. The Applicant has made a commitment to undertake hydrogeological risk assessments where appropriate. As was agreed at the initial SoCG meetings this commitment will be incorporated within an updated Outline Code of Construction Practice, which is in turn secured through the relevant DCO Requirement.

No.	Relevant Representation	Applicant's Comments
		An early draft SoCG has been submitted to the ExA on 11th June 2020 (document reference ExA.SoCG-3.D0.V1).
041	We note and welcome the measures proposed in section 7 Waste Management. As highlighted above, we would wish to review the draft Site Waste Management Plan. Similarly, we welcome the measures proposed in section 11 Surface Water and Drainage Management. We would wish to review draft Surface Water & Drainage Management Plans; the draft Flood Management Plan and the Watercourse Crossing Method Statement.	The Applicant will ensure the Environment Agency are given an opportunity to review the site waste management plan, surface water and drainage management plan, flood management plan and watercourses crossing method statement prior to their approval by the Local Planning Authorities.
042	We note that the proposed control measures in section 11 in respect of sediment management include establishing attenuation or settlement ponds. It must be ensured that there is sufficient space within the site to include adequately sized ponds.	The Applicant considers there is sufficient area within the Order Limits to ensure adequately sized ponds can be designed. The exact size and position of ponds will be refined post-consent as part of the detailed design stage.
043	We also note that where possible spoil storage is to be set back 5m from watercourses. We would suggest that in the case of the Thorpeness Hundred river, spoil should be stored outside the floodplain.	The Applicant will ensure the final CoCP is updated with a provision for spoil storage to be set outside of the Hundred River flood plain.
044	Section 11.1.4 Surface Water Drainage again states that surface water run-off rates will be agreed with the LLFA and Environment Agency. As mentioned above, we are concerned with water quality but it is the LLFA that should agree discharge rates.	The Applicant will remove the words '*and Environment Agency*' from ***Section 11.1.4*** (Paragraph 105) in the ***Outline Code of Construction Practice*** (APP-578).
045	Table 11.1 highlights the consents that may be required from the Environment Agency. An Impoundment licence as mentioned in paragraph 5.12 of this response should also be added.	The Applicant will add the requirement for an Impoundment Licence in relation to damming the Hundred River to ***Section 11.2*** of the ***Outline Code of Construction Practice*** (APP-578).

No.	Relevant Representation	Applicant's Comments
046	We are pleased to note in section 11.3 the requirement to protect private water supplies and to monitor all groundwater abstractions identified during landowner consultations.	The Applicant welcomes the Environment Agency's support on this inclusion of the ***Outline Code of Construction Practice*** (APP-578).
047	Document 3.2 Draft Development Consent Order 10.1 Part 4 – Supplemental Powers currently includes Article 16 (5) under Discharge of water. We would suggest that this wording should be deleted as it is unnecessary and potentially confusing. The activity described would be a flood risk activity for the purposes of the Environmental Protection Regulations 2016, and as such controlled by those regulations. The applicant has confirmed that consent will be sought post DCO.	The Applicant will delete paragraph (5) of Article 16 of the ***draft DCO*** (APP-023).

4.10 Historic England (RR-047)

Table 27 Applicant's Comments on Historic England's Relevant Representation

No	Relevant Representation	Applicant's Comments
001	The Historic Buildings and Monuments Commission for England (HBMCE) is better known as Historic England, and we are the Government's adviser on all aspects of the historic environment in England - including historic buildings and areas, archaeology and historic landscape. We have a duty to promote conservation, public understanding and enjoyment of the historic environment. HBMCE are an executive Non-Departmental public body and we answer to Parliament through the Secretary of State for Digital Culture, Media and Sport. In addition to our remit for the conservation of the historic environment the National Heritage Act (2002) gave HBMCE responsibility for maritime archaeology in the English area of the UK Territorial Sea.	Noted.
002	The applicant has provided a full Environmental Statement and Historic England's full written representation will comment on aspects and concerns that we have established with regards to the impact of the scheme upon the on- and offshore historic environment.	Noted.
003	In relation to the off-shore historic environment, the large number of geophysical seabed anomalies recorded within the PDA highlights the potential for significant historic environment features to be present. Our concern is therefore to ensure that the Outline Offshore Archaeological Written Scheme of Investigation considers how the construction can be designed sensitively to take into account known and potential heritage assets.	As described in ***section 1.5.1*** of the ***Outline Written Scheme of Investigation*** (WSI) (Offshore) (APP-583), the Applicant has committed to further archaeological assessment of any further geophysical data acquired for the project. The overarching objectives of the assessment of marine geophysical survey data are to: • Identify known heritage assets and provide additional detail on the nature and extent of those assets; • Identify previously unidentified seabed features;

No	Relevant Representation	Applicant's Comments
		• Identify buried palaeolandscape features that help to clarify the nature of the submerged prehistoric landscape; and • Monitor construction and post-construction effects. A final WSI (Offshore) will be submitted to Historic England at least six months prior to the commencement of licensed activities and to the Marine Management Organisation (MMO) at least four months prior. This is secured under Condition 17(1)(g) of the generation Deemed Marine Licence (DML) and Condition 13(1)(g) of the transmission DML of the ***Draft Development Consent Order*** (DCO) (APP-023). Condition 17(4) of generation DML and Condition 13(4) of the transmission DML of the ***draft DCO*** requires submission of a WSI prior to pre-construction archaeological investigations, UXO clearance and pre-commencement material operations which involve intrusive seabed works, and this must be approved by the MMO in consultation with Historic England prior to such activities taking place. In addition to the WSI (Offshore), a design plan will be produced post-consent which will detail any archaeological exclusion zones and environmental micrositing requirements. This will be submitted to the MMO for approval. This is secured under Conditions 17(1)(a)(xii) of the generation DML and 13(1)(a)(xii) of the transmission DML.
004	In the event of the project being consented, we are concerned to ensure the appropriate depth for a continuous stratigraphy is incorporated into the planning of the geotechnical survey. With boreholes and vibro cores stored and maintained to maximise archaeological objectives. This is to mitigate impacts on archaeological deposits of high potential.	Historic England will be consulted on the scope of all further geophysical surveys undertaken for the project in order to ensure that the data generated are sufficiently robust to meet these archaeological objectives and to enable professional archaeological interpretation and analysis. The Applicant has committed to this in the ***Outline Offshore Written Scheme of Investigation*** (APP-583). Additionally, Condition 17(4) of the generation DML and Condition 13(4) of the transmission DML of the ***draft DCO*** requires submission of a WSI

No	Relevant Representation	Applicant's Comments
		prior to pre-construction archaeological investigations, UXO clearance and pre-commencement material operations which involve intrusive seabed works, and this must be approved by the MMO in consultation with Historic England prior to such activities taking place.
005	We have identified that the resulting proposals of embedded and additional mitigation - through schemes of investigation - have the potential to successfully mitigate impacts to the historic environment through avoidance, but these present opportunities to better reveal the significance of the heritage assets found within the proposed development area (see ES Chapter 16). We consider that the projects potential contribution to new knowledge arising from such investigations (EN-3, paragraph 2.6.142) can be linked to additional socio-economic beneficial effects, such as the provision and enhancement of educational facilities for the community (EN-1, paragraph 5.12.3). Given the scale of the development and the cumulative impacts within this region of the southern North Sea, we feel these outcomes should be included as part of the mitigation.	The potential beneficial effects and contribution of new knowledge regarding unknown heritage assets is recognised by the Applicant and has been incorporated into the EIA as part of the criteria for assessing magnitude of effect in the assessment (***section 16.4.3.2*** of ***Chapter 16 Marine Archaeology and Cultural Heritage*** (APP-064)). It is noted that the measure of beneficial effect is situational and specific to a given site, area or subject. Please see ***Table 16.9*** in ***section 16.4.3.2*** for the indicative criteria for magnitude of beneficial effect. The Applicant will continue to engage with Historic England on beneficial measures such as the provision and enhancement of educational facilities through the Statement of Common Ground (SoCG) process.
006	On-shore, our principal concern is in relation to the proposed development of the sub-station and the cumulative impact of this new infrastructure on the significance of the grade II* listed Church of St. Mary at Friston. Dating from the eleventh century, the phases of building illustrate ecclesiastical design and patterns of worship, and show the significant role of the church within the community. It lies on the northern edge of the village and is appreciated in a rural and largely open landscape setting enabling views from the south and north. This enhances its prominence and adds to the appreciation of the building. The scale and appearance of the development would significantly change the character of this rural landscape setting. It would compromise and completely obscure views to the church from the north and from the church looking northwards. It would also greatly	The potential impact on the landscape character and historical setting of the Church of St Mary heritage asset is noted by the Applicant and this is reflected by the determination of moderate adverse significance (residual impact following mitigation specified in the ***outline Landscape and Ecological Management Strategy*** (***OLEMS***) (APP-584)) within the assessment in ***section 24.6.2.1*** of ***Chapter 24 Archaeology and Cultural Heritage*** (APP-072) and assessed in full in the historical setting assessment in ***Appendix 24.7*** (APP-519 and APP-520). The ***OLEMS*** has been developed to reduce adverse impacts on the heritage assets at Friston, consider historic landscape and re-establish historic field boundaries. In areas to the immediate north of Friston, the re-establishment of historic field boundaries, filling gaps in existing

No	Relevant Representation	Applicant's Comments
	impact on key views of the church from the south, which would be seen against a backdrop of the sub-stations. We consider this would result in a very high level of harm to the significance of the grade II* church. We are aware the proposal includes screening and mitigation planting, however we have also considered this aspect of the scheme and have concerns that this will also bring about further changes to the setting of the church.	hedgerows and introducing field boundary trees has been proposed to provide layered screening, rather than large-scale woodland planting close to the village. This allows the 'setting' of Friston to be retained (rather than being contained by woodland). Reinstatement of hedges with substantial gaps and new field trees are proposed to the north of Friston (***section 24.6.2.1*** of ***Chapter 24 Archaeology and Cultural Heritage)***. ***Chapter 29*** (APP-077) and ***Chapter 24*** (APP-072) of the ES and their respective appendices provide an extensive range of viewpoints to aid assessments of cultural heritage and landscape/visual amenity, including aspects of the Church of St Mary, Friston, from the south and west. The Applicant considers that existing views of the church from the south sit within the urban framework of the village of Friston with a backdrop of the existing National Grid overhead power lines (see LVIA Viewpoint 6 and LVIA Viewpoint 9 of the Landscape and Visual Impact Assessment shown in ***Figure 29.21, Chapter 29*** of the ES (APP-412); and Cultural Heritage Viewpoint 1 of ***Appendix 24.7*** (APP-519)). In short-range views, LVIA Viewpoint 6 illustrates the view from the green in Friston looking north with the church tower visible in the foreground and the onshore substations and National Grid substation beyond. Cultural Heritage Viewpoint 1 represents a view of the church approaching from the south on a footpath with the onshore substations and National Grid substation visible in the background. In both cases, the Applicant considers that it is clear that the onshore substations and National Grid substation, to the very limited extent that they would be visible, would remain visually subordinate to the church. In longer range views, LVIA Viewpoint 9 illustrates a view of the church at a range of 600m, approaching the village from the south on the Aldeburgh Road with the onshore substations and National Grid substation visible in the background. The status of the church tower as a landmark from the wider parish of Friston would not be compromised with the church tower

No	Relevant Representation	Applicant's Comments
		remaining a prominent feature within long-range views. As summarised in ***Appendix 24.7*** (APP-519) the contribution made by setting to the significance of the church in these range of views would not be materially affected when viewed at short, mid or longer ranges from the south. The Applicant worked closely with Historic England who provided comments on the ***OLEMS*** (APP-584) via a series of technical working group meetings in addition to the LVIA Expert Topic Group (ETG) consultation (see ***section 3.4.1*** of the ***OLEMS***). Detailed comments from Historic England included the consideration of the historic landscape: *"The historic landscape of the area needs to be taken into consideration. In area to the immediate north of Friston, the reinstatement of historic field boundaries, filling gaps in existing hedgerows and introducing field boundary trees is likely to be preferable, to provide layered screening, rather than largescale woodland planting close to the village. This would allow the 'setting' of Friston to be retained (rather than being contained by woodland). In other areas, there may be potential for establishment of larger woodland blocks akin to the existing pattern of woodland blocks in the landscape"* The Applicant will continue to engage with Historic England to minimise potential impacts regarding heritage setting, where practicable.
007	We intend to expand on this more fully in our full response, and it is likely we will consider wider impacts of the proposed sub-station infrastructure and the on-shore cable route on designated and non-designated heritage assets. We have however concluded that although we do not object to the scheme in principle, we will consider an in principle objection to the location of the sub-station on historic environment grounds.	Noted.

4.11 Innogy Renewables UK Ltd (RR-048)

Table 28 Applicant's Comments on innogy Renewables UK Ltd's Relevant Representation

No.	Relevant Representation'	Applicant's Comments
001	The Galloper Extension Offshore Wind Farm is currently being developed by innogy Renewables UK Ltd. The project is at a very early stage of development, but we have identified potential spatial interactions and cumulative impacts with the East Anglia ONE North and East Anglia TWO projects both onshore and offshore.	Noted.
002	The Galloper Extension Offshore Wind array area is located approximately 5km south of the southern boundary of East Anglia TWO. We would therefore like to follow the progress of the projects through the planning process and have the opportunity to make further representations if necessary.	Noted.

4.12 Marine Management Organisation (RR-052)

8. The Applicant has appended four clarification notes alongside these Relevant Representation responses which are of relevance to the MMO. Where a particular clarification note acts as a direct response to, or is associated with, a particular aspect of the Relevant Representations made by MMO, this has been indicated in the table below. The clarification notes of relevance to the MMO are as follows:

- ***Appendix 1 Marine Policy Clarification Note;***
- ***Appendix 2 Wave Monitoring Clarification Note;***
- ***Appendix 3 Fish and Shellfish Ecology Clarification Note; and***
- ***Appendix 6 Outer Thames Estuary Cabling Clarification Note.***

Table 29 Applicant's Comments on Marine Management Organisation's Relevant Representation

No	Relevant Representation	Applicant's Comments
Development Consent Order (DCO) and Deemed Marine Licences (DML)		
001	1.1.2 DCO Part 1, Article 2 – Interpretations: The MMO does not agree with the definition of 'commence' in relation to 'offshore preparation works'. The term "including but not limited to surveys, monitoring and UXO clearance" is not sufficiently precise and has the potential to authorise works which may have the potential to impact upon the environment prior to the approval of appropriate methodologies (e.g. boulder clearance and sandwave levelling). The MMO recommends that the words "but not limited to" are removed from the definition of offshore preparation works here and in the definitions for the associated deemed marine licences (DMLs) in Schedules 13 and 14.	In order to clarify the activities that fall within the definition of "offshore preparation works", the definition will be updated in the next version of the draft DCO as follows: *"offshore preparation works" means surveys, monitoring and UXO clearance ~~any activities within the Order limits seaward of MHWS~~ undertaken prior to the commencement of construction to prepare for construction~~, including but not limited to surveys, monitoring and UXO clearance.~~*
002	1.1.3 DCO Part 1 Article 2 – Interpretations: The definition of 'maintain' as stated in the DCO and associated DMLs would permit	Under consideration by the Applicant. Through the Statement of Common Ground (SoCG) process, the Applicant has requested sight of

No	Relevant Representation	Applicant's Comments
	ancillary works including the installation of new cable and scour protection beyond the end of construction. The MMO does not consider that installation of new cable and scour protection post-construction falls within the definition of 'maintain'. The benthic assessment included in the ES will not remain valid for the lifetime of the project and it is recommended that new benthic surveys are undertaken prior to installation of rock protection for cable repairs to ensure that any required mitigation for protected habitats such as Sabellaria reef can be properly secured at the time. The MMO and Natural England have drafted joint position papers on this issue which offer guidance on the expected marine licensing requirements for such activities. Final versions of the guidance are expected to be approved in time for the Planning Inspectorate hearings for the East Anglia TWO project.	the joint paper by the Marine Management Organisation (MMO) and Natural England (NE) which the MMO state will offer guidance on the expected marine licensing requirements for such activities. Following review of this guidance, the Applicant will prepare a response on this matter.
003	1.1.4 Deemed Marine Licences, Schedules 13 and 14, Part 1 – Details of licensed marine activities (Article 2) and Part 2 (Conditions), Article 16 – UXO clearance: The MMO does not consider that any UXO campaign should be authorised through conditions on the DMLs. UXO campaigns are high risk activities which require detailed, complex impact assessments, conditions and enforcement. It is the MMO's opinion that it would be more appropriate to remove this activity from the DMLs and for the MMO to determine an application for the activities in a separate marine licence post-consent, in consultation with relevant stakeholders.	The Applicant does not consider it necessary to apply for a separate marine licence for Unexploded Ordnance (UXO) clearance activities as such activities are assessed within the Environmental Statement (ES) and are controlled by the conditions of the deemed marine licenses (DMLs). The DCO regime set out within the Planning Act is designed to remove the need for Applicants of nationally significant projects to obtain multiple consents from various different authorities. Instead, the necessary consents, powers and rights can be included within the DCO, and this includes deemed marine licences. Requesting that the Applicant apply for a separate marine licence for UXO clearance activities, particularly when such activities have been assessed within the ES, is contrary to the intended purpose of the DCO regime. As currently drafted, the DMLs do not permit any UXO clearance activities to be undertaken without the requirements of condition 16 of the generation DML and condition 12 of the transmission DML first being

No	Relevant Representation	Applicant's Comments
		complied with which require the following to be submitted to and approved by the MMO: *"(a) a method statement for UXO clearance which must include—* *(i) methodologies for—* *(aa) identification and investigation of potential UXO targets;* *(bb) clearance of UXO;* *(cc) removal and disposal of large debris;* *(ii) a plan showing the area in which clearance activities are proposed to take place;* *(iii) a programme of works;* *(b) a marine mammal mitigation protocol in accordance with the draft marine mammal mitigation protocol, the intention of which is to prevent injury to marine mammals, following current best practice as advised by the relevant statutory nature conservation bodies; and* *(c) an East Anglia TWO Project Southern North Sea SAC Site Integrity Plan for UXO Clearance which accords with the principles set out in the in principle East Anglia TWO Project Southern North Sea SAC Site Integrity Plan."* UXO clearance activities are therefore adequately controlled within the DMLs. The UXO clearance condition will however be updated in the next version of the ***draft DCO*** (APP-023) to make it clear that the notification requirements within condition 10 (Notifications and inspections) of the

No	Relevant Representation	Applicant's Comments
		generation DML and condition 6 of the transmission DML apply to UXO clearance activities.
004	1.1.5 The Applicant will need to separately apply to the MMO for a separate European Protected Species (EPS) licence in order to authorise any UXO campaign for the project. Mitigation measures captured within an EPS licence and marine licence for UXO campaigns are usually aligned and this would not be possible under the proposed arrangement. A separate conditioned marine licence for this activity would be more easily enforceable. Condition complexity is such that a recent marine licence for the UXO campaign at Hornsea 2 required 19 separate project specific conditions and the draft DMLs do not sufficiently secure the required mitigation for this activity. Separating this out from the DMLs would allow for the UXO campaign to be assessed, conditioned and varied independently without needing to vary the DMLs should a greater number or magnitude of ordnance be discovered in post- consent survey work than has currently been assessed in the ES.	The Applicant does not agree with the MMO's comment. Taking piling as an example, if a European Protected Species (EPS) licence is required for piling this will be applied for outside the DCO/DML process, with the piling activity authorised by the DMLs. This is the standard approach that has been taken in DCOs and DMLs to date. The Applicant considers that the same approach should be applied to UXO clearance activities. The licence holder will be required to comply with the conditions of the DML as well as the conditions of the EPS licence. With respect to the reference to UXO marine licences having project specific conditions, the Applicant reviewed and considered other UXO marine licences in drafting the UXO clearance condition for inclusion within the DMLs to ensure such conditions are captured within the DMLs. The UXO clearance condition states that no removal or detonation of UXO can take place until the following have been submitted to and approved in writing by the MMO: (a) a method statement for UXO clearance which must include— (i) methodologies for— (aa) identification and investigation of potential UXO targets; (bb) clearance of UXO; (cc) removal and disposal of large debris;

No	Relevant Representation	Applicant's Comments
		(ii) a plan showing the area in which clearance activities are proposed to take place; (iii) a programme of works; (b) a marine mammal mitigation protocol; and (c) an East Anglia TWO Project Southern North Sea SAC Site Integrity Plan for UXO Clearance. Any further mitigation measures that are considered necessary once the specific UXO clearance activities to be undertaken are known can be built into the UXO method statement, Marine Mammal Mitigation Protocol (MMMP) and/or Site Integrity Plan (SIP), to the extent required, in accordance with the UXO clearance DML condition. Should UXO clearance activities be required beyond the scope of what has been assessed within the Environmental Statement then a separate marine licence will be applied for at the relevant time and therefore it will not be necessary to vary the DMLs.
005	1.1.6 DML Schedules 13 and 14, condition 21 – Construction monitoring: The MMO recommends insertion of an additional sub-paragraph to confirm that all piling will cease if noise levels are significantly higher than those modelled and assessed in the ES, and will not restart until the Marine Mammal Mitigation Plan has been updated and the MMO grant permission for the activity to recommence.	The Applicant does 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.

No	Relevant Representation	Applicant's Comments
006	1.1.7 Insertion of the following wording is proposed: 'The results of the initial noise measurements monitored in accordance with sub-paragraph (2) must be provided to the MMO within six weeks of the installation of the first four piled foundations of each piled foundation type. The assessment of this report by the MMO will determine whether any further noise monitoring is required. If, in the opinion of the MMO in consultation with Natural England, the assessment shows significantly different impact to those assessed in the ES or failures in mitigation, all piling activity must cease until an update to the MMMP and further monitoring requirements have been agreed.'	As per row above.
007	1.1.8 DML Schedules 13 and 14, condition 22 – Post-construction monitoring: The purpose of post-construction monitoring is to validate predicted impacts set out in the ES. Whilst the MMO notes the Applicant's intention to carry out post- construction surveys for up to 3 years, additional surveys may be required if the impacts of the project are found to exceed those predicted in the ES.	The Applicant will amend this condition in the next version of the draft DCO to remove reference to the three-year timescale for post-construction surveys and will set out details of timescales for post-construction monitoring within the ***In Principle Monitoring Plan*** (APP-590). Condition 22(3) of the generation DML and condition 18(3) of the transmission DML will be amended as follows: *"The undertaker must carry out the surveys agreed under sub-paragraph (1) ~~for up to 3 years post-construction, which could be non-consecutive years~~, and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies."*

No	Relevant Representation	Applicant's Comments
008	1.1.9 The MMO notes that micro-siting does not appear to be mentioned in the context of mitigating impacts on Sabellaria reef in the draft Development Consent Order (DCO). However, we recognise that exclusion zones/environmental micro-siting requirements do form part of Schedule 13 part 2 condition 7 and schedule 14 part 2 condition 13. These conditions are referenced in the Offshore Schedule of Mitigation, which does refer to Sabellaria reef specifically.	Noted, condition 17(1)(a) of the generation DML and condition 13(1)(a) of the transmission DML make provision for micro-siting around environmental constraints, such as *Sabellaria* reef.
009	1.1.10 It is stated in the Offshore Schedule of Mitigation document (reference 3.5) that environmental micro-siting will be used to minimise potential impacts to protected species and habitats (i.e. Sabellaria reef) where necessary and practicable. The same document states that this will be agreed through consultation with the MMO, which is reasonable. However, we advise that additional information on what is considered impracticable should be included as this would allow the suitability of the mitigation plans to be assessed in more detail.	The Applicant's inclusion of the word 'practicable' was included to mitigate a scenario where environmental micro-siting is not feasible. An example of 'impracticable' would be the identification of a *Sabellaria* reef dissecting the order limits of the export cable corridor and preventing the export cables from connecting the offshore substations and the landfall. In such circumstances it may be necessary to route the export cable through part of the reef or its buffer however the results of the *Sabellaria* reef survey and available options would be discussed with the MMO. Condition 17(1)(a) of the generation DML and condition 13(1)(a) of the transmission DML require a design plan to be submitted to the MMO for approval and this must include details of any environmental micro-siting requirements.
010	1.1.11 Additionally, the MMO advises that "where practicable" should be clearly defined regarding the use of micro-siting to mitigate impacts on Sabellaria reef.	The Applicant does not consider it necessary or appropriate to define "where practicable". Please see the Applicant's response to Point 1.1.10 above for an example of when micro-siting may be impracticable.

No	Relevant Representation	Applicant's Comments
011	1.1.12 The MMO notes that the draft DCO states that the substances or articles authorised for deposit at sea include plastics and synthetics as well as marine coatings and other chemicals. We advise that depositing such materials and substances at sea is avoided, where possible.	Noted.
012	1.1.13 MMO does not consider that the draft DCO (Chapter 3.1) and associated DML and licence conditions contain sufficient detail to adequately capture the mitigation options proposed, for example: • Micro-siting (See Schedule 14, Part 2, Paragraph 13.1(a) of the DML) • General cable burial depths (See Schedule 14, Part 2, Paragraph 13.1(d) of the DML) • Landfall location (See Schedule 14, Part 2, Paragraph 13.1(a) of the DML) • Landfall cable burial (See Schedule 14, Part 1, Paragraph 3.5(a) of the DML) • Foundations with greatest potential scour (See Schedule 14, Part 2, Paragraph 13.1(d) of the DML) • Foundations with lesser potential scour (See Schedule 14, Part 2, Paragraph 13.1(d) of the DML) • Piled foundation types (See Schedule 14, Part 2, Paragraph 13.1(d) of the DML)	It is not clear to the Applicant what detail is being requested and why this is considered necessary as most of the detail referred to is already included within the DMLs. The Applicant therefore requests clarification from the MMO in respect of this comment.

No	Relevant Representation	Applicant's Comments
013	1.1.14 The MMO agrees that the existing mitigation measures proposed for fish are appropriate and appear to have been captured within the DML conditions. However, there is a potential overlap in noise propagation from piling over parts of the Downs herring spawning ground which may mean that a seasonal piling restriction is needed. If additional mitigation measures such as this are found to be necessary, then they will need to be included in the DML conditions.	Please see ***section 2.3*** of the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document). The Applicant does not consider there to be any need for a seasonal piling restriction.
014	1.1.15 Furthermore, as per our comments in paragraphs 3.4.11.7, we recommend that the applicant undertake pre- and post-construction sandeel habitat monitoring. This should be secured with specific licence conditions in the DMLs.	Please see the Applicant's response to the MMO's comments at paragraph 3.4.11.7 in respect of Fish and Shellfish Ecology. It is the Applicant's view that further investigation and monitoring of sandeel habitat is not necessary
015	1.1.16 DCO Part 7, Schedule 15, Article 37 – Arbitration: Article 37 proposes that any difference shall be referred to and settled in arbitration in accordance with the rules at Schedule 15 of the Order. Although arbitration provisions are not explicitly mentioned in the DMLs, they are assumed to apply to subsidiary Schedules 13 and 14 of the Order. The MMO's position on arbitration has been set out in a number of recent offshore wind farm Planning Inspectorate hearings and is repeated here in the following paragraphs.	The Applicant considers it necessary to ensure that there is an appropriate appeals mechanism available to the undertaker during the process of discharging requirements of the DCO and conditions of the DMLs so that this nationally significant infrastructure project is not delayed due to the failure of discharging authorities to determine applications for approval within the agreed timescales. <u>DML conditions</u> The Applicant will therefore seek to modify the provisions of the Marine Licensing (Licence Application Appeals) Regulations 2011 so that they apply where the MMO refuses an application for approval under one of the conditions of the DMLs or alternatively where the MMO fails to determine an application within the timescales. This is to ensure that the undertaker has an appropriate appeals mechanism in order to resolve matters in a timely manner to reduce the risk of delays to the Project.
016	1.1.17 In comparison to previously approved articles for arbitration, Article 37 sets out significantly different conditions and timeframes, which the MMO does not consider to be acceptable. The MMO notes that arbitration provisions tend to follow model clauses and be confined to disputes between the applicant/beneficiary of the DCO and third parties e.g. in relation to rights of entry or rights to install/maintain apparatus. The MMO does not consider that it was	

No	Relevant Representation	Applicant's Comments
	intended to apply such provisions to disagreements between the undertaker and the regulator, and strongly questions the appropriateness of making any regulatory decision or determination subject to any form of binding arbitration as set out by Article 37 and Schedule 15.	<u>DCO requirements</u> The Applicant also intends to include a new schedule within the draft DCO which sets out a procedure in respect of the discharge of requirements which provides timescales for decisions to be made and an appeals process where an approval is refused or where the discharging authority fails to issue a decision within the timescales. This approach is in accordance with Planning Inspectorate Advice Note 15: Drafting Development Consent Orders and largely follows the text proposed by PINS within Appendix 1 of that Advice Note. This will not apply in respect of the discharge of conditions of the DMLs. <u>Arbitration</u> The Arbitration provisions are not intended to apply to decisions of the MMO in discharging DML conditions.
017	1.1.18 When the MMO was created by Parliament to manage marine resources and regulate activities in the marine environment, the Secretary of State delegated his/her functions to the MMO under the MCAA 2009. As both the role of the Secretary of State (in determining DCO applications) and the role of the MMO (as a regulator for activities in the marine environment) are recognised by the PA 2008, the responsibility for the DML passes from the Secretary of State to the MMO once granted. The MMO is responsible for any post-consent approvals or variations, and any enforcement actions, variations, suspensions or revocations associated with the DMLs.	
018	1.1.19 It was not the intention of Parliament to create separate marine licensing regimes following different controls applied to the marine environment. In fact, one of the aims of the PA 2008 is the provision of a 'one stop shop' for applicants seeking consent for a National Significant Infrastructure Project (NSIP). The new regime allows for the applicant to choose whether to include a DML issued under MCAA 2009 within the DCO provision, or apply to the MMO for a stand-alone licence covering all activities in the marine environment. In any case, it is crucial that consistency is maintained between DMLs granted through the provision of a DCO, and Marine Licences issued directly by the MMO independent of the DCO process.	

No	Relevant Representation	Applicant's Comments
019	1.1.20 It is the MMO's opinion that the referral to arbitration in situations where 'difference' may arise, is contrary to the intention of Parliament and usurps the MMO's role as regulator for activities in the marine environment. Considering the draft DMLs, the MMO believes that the 'differences' to which arbitration would be applied are those situations in which the MMO is required to give further consent or approval. These situations appear to arise when small re-determinations of aspects of the marine licence process have to take place.	
020	1.1.21 Generally, the MMO considers these to be technical determinations that fall properly to the MMO to make, (as the expert regulator in this field and the body created by Parliament for this purpose), and that MMO's determinations in this regard should not be open to challenge through an arbitration process. Furthermore, once the DCO is granted, the DML falls to be dealt with as any other Marine Licence, and any decisions and determinations made once a DML is granted fall into the regime set out in the MCAA 2009. Any decisions or actions the MMO carries out in respect of a DML should not be made subject to anything other than the normal approach under the MCAA 2009. To do so introduces inconsistency and potentially unfairness across a regulated community. In the case of any disagreement which may arise between the applicant and the MMO throughout this process, there is already a mechanism in place within that regime to challenge a decision through the existing appeal routes under Section 73 of MCAA 2009. The MMO feels it is inappropriate to take such decision relating to post- consent issues with a DML outside of the normal mechanisms available to challenge such decisions, and to apply arbitration.	

No	Relevant Representation	Applicant's Comments
021	1.1.22 The arbitration process as set out in Schedule 15 describes a private process and requires the agreement that all discussions and documentation will be confidential and not disclosed to third parties without written consent. The MMO would like to highlight that the regulatory decisions, and indeed any challenges through the existing mechanisms should be publicly available and open to scrutiny. In many cases, members of the public or other stakeholders may wish to make representations in relation to post-consent matters. Ordinarily, their views would be considered by the MMO and they would have the opportunity to follow up and challenge the decision making e.g. through the MMO complaints process, by complaint to the Ombudsman, or by Judicial Review. A private arbitration to resolve post-consent disputes would reduce transparency and accountability.	
022	1.1.23 The MMO considers that Article 37 and Schedule 15 would shift the MMO's decision making responsibility from the hands of the regulator with primary responsibility for administering the marine licensing regime to an independent arbitrator. This would be contrary to the intention of Parliament set out in the Marine and Coastal Access Act (MCAA) 2009 and would potentially usurp the MMO's role as a regulator. The MMO therefore requests that the MMO is explicitly not subjected to these provisions, in line with the recommendation of the Planning Inspectorate in their proposed changes to the draft DCO for the Hornsea Three offshore wind farm (Relevant Representation PD-017: The Examining Authority's Schedule of Changes to the draft DCO).	

No	Relevant Representation	Applicant's Comments
023	1.2.1 DCO Schedule 1, Part 1 – Authorised development: The MMO refers to paragraph 1.1.3 above regarding new rock and scour protection for cables post-construction.	See response to 1.1.3 above.
024	1.2.2 DCO Schedule 1, Part 3 – Detailed offshore design parameters: The MMO recommends that maximum rock and scour protection areas and volumes are detailed here in addition to the DMLs in Schedules 13 and 14 for consistency. Detail of these section of the DCO.	Deposits are licensable marine activities and are therefore regulated by the DMLs. There is therefore no need for these volumes to be specified in Schedule 1 of the DCO. Such parameters should be specified in the DMLs only so that if there is any need to vary the figures in the future, they can be dealt with by way of a DML variation. Specifying these figures in Schedule 1 of the DCO may cause unnecessary difficulties in the event that the figures require to be varied.
025	1.3.1 Schedules 13 and 14, Part 1, Article 1: Definitions of 'commence', 'maintain' and 'offshore preparation works' – see comments in paragraphs 1.1.2 and 1.1.3 above.	See responses to 1.1.2 and 1.1.3 above.
026	1.3.2 Schedules 13 and 14, Part 1, Article 4: Please note the MMO local office in Lowestoft's telephone number is 0208 026 6094.	Noted. This will be updated in the next version of the ***draft DCO*** (APP-023).

No	Relevant Representation	Applicant's Comments
Outline Offshore Operations and Maintenance Plan (OOMP)		
027	2.1.1 Paragraph 1.1: Purpose of this Document – Point 3: The MMO recommends that the offshore operations and monitoring plan is submitted six months prior to the commencement of operation of the licensed activities to allow sufficient time for consultation responses to be incorporated and amended prior to approval of this document	Noted. The ***outline OOMP*** (APP-589) will be updated and will be submitted during the examination to state that the full OOMP will be submitted six months prior to the commencement of operation of the licensed activities. This is in accordance with condition 17 of the generation DML and condition 13 of the transmission DML.
028	2.1.2 Paragraph 1.1: Purpose of this Document – Point 3: Logistical set-up of the O&M base is included in the OOMP. Please note that any works below mean high water spring tide may require a separate marine licence.	Noted.
029	2.1.3 Appendix 1 – Operations and Maintenance List: "The use of large jack-up vessels operating for significant periods to carry out …major maintenance activities" The MMO notes that this activity may have a significant impact on benthic habitats which may have recovered from initial activities post-construction. Additional survey work may be required prior to undertaking these activities to ensure that ephemeral features such as Sabellaria reef can be effectively mitigated against impacts from these works.	Comment under consideration by the Applicant.

No	Relevant Representation	Applicant's Comments
030	2.1.4 Appendix 1 – Operations and Maintenance List: "Additional cable protection in the different locations to cable protection installed during construction" and "Cable burial using surface protection": See comments in paragraph 1.1.2 above. The MMO and Natural England do not consider that additional cable protection in new locations post-construction should fall under the definition of 'maintain'. These activities should therefore be changed to red (an additional marine licence would be required) in the penultimate column.	The Applicant has assumed that the reference to paragraph 1.1.2 should be to paragraph 1.1.3. Please therefore see response to 1.1.3 above.
031	2.1.5 Appendix 1 – Operations and Maintenance List: "UXO clearance via detonation": This is a high risk activity and therefore should not be authorised for the lifetime of the project. East Anglia TWO sits within a designated area for harbour porpoises which are highly sensitive to noise impacts and the MMO considers that any operations and maintenance detonations of UXO should be licenced separately (see comments in paragraph 1.1.2 above). The quantities described in the OOMP appear to correspond to the total assessed to include the pre-construction UXO campaign. It is unclear whether this is (inappropriately) included in the OOMP since a pre-construction UXO campaign is not an operations and maintenance activity. Again, the penultimate column should be changed to red since the MMO considers that this activity would require an additional marine licence.	The worst case assumption and classification of UXO detonation during the operations and maintenance (O&M) phase not requiring a marine licence was an error. The Applicant will update the OOMP to reflect that any UXO detonation during the O&M phase will require a marine licence.
032	2.1.6 Appendix 1 – Operations and Maintenance List: "Recovery of dropped objects" This activity is correctly detailed as requiring report to the MMO via a Dropped Object Procedure Form, therefore the final column should state 'Yes'.	The final column refers to consultation with the MMO and relevant SNCBs and is therefore marked as "No" in the context of dropped objects however a report to the MMO via a Dropped Object Procedure Form will be made as stated in the table.

No	Relevant Representation	Applicant's Comments
Offshore In Principle Monitoring Plan (OIPMP)		
033	2.2.1 Table 2: In-Principle Monitoring Proposed –Benthic Ecology; Post-construction: "Where no Sabellaria reef is identified by the pre-construction survey of the proposed works or where reef has been identified but avoided (and associated buffers), no post-construction surveys will be undertaken" See comments in paragraphs 1.18.8 above; certain post-construction activities may require additional benthic surveys (i.e. drop-down video) prior to the commencement of works to ensure effective mitigation for ephemeral protected features.	See the Applicant's response to MMO comment 1.1.8 above.
034	2.2.2 1.6.5 –Fish Ecology: The MMO recommends additional modelling on stationary receptors for fish is recommended to properly assess potential impacts on the Downs herring stock (see section 3.5 below). Until such modelling has been undertaken, the MMO cannot agree with the impact assessment of 'minor adverse' for fish ecology.	See the Applicant's response to MMO comments 3.4.4, 3.4.5 and 3.4.7 on fish and shellfish ecology below. The Applicant considers that no further modelling is required
In Principle Site Integrity Plan for the Southern North Sea Special Area of Conservation (IPSIP)		
035	2.3.1 The MMO welcomes the inclusion of clearance of UXO in the IPSIP, which is an appropriate place to detail the scale of potential noise impacts from the project on the Southern North Sea SAC. The MMO considers however that a more detailed Habitats Regulations Assessment of this activity should follow post-consent together with the submission of a detailed marine licence application for the required UXO campaign (see paragraph 1.1.3 above).	***Table 2.1*** of the ***In principle Site Integrity Plan*** (APP-594) states the following: *The SIP for UXO clearance will be updated to capture all relevant assessments and mitigation measures. Alongside the in principle SIP for UXO clearance an implementation plan and any monitoring requirements will also be drafted for any required measures.* The SIP will demonstrate that the final project design and any mitigation measures lead to residual effects that are in line with the worst case assumptions of the Habitat Regulations Assessment.

No	Relevant Representation	Applicant's Comments
036	2.3.2 The Applicant is advised that the Department of Business, Energy and Industrial Strategy (BEIS), together with the MMO, intend to provide further advice on the recommended content of IPSIPs for harbour porpoise SACs and that this should be incorporated into future versions of the document post-consent.	Noted
Marine Mammal Mitigation Protocol (MMMP)		
037	2.4.1 With reference to section 5.1.3 in the draft MMMP, the maximum potential permanent threshold shift (PTS) range for marine mammals from an unexploded ordnance (UXO) with a possible maximum charge weight of 700 kg is in fact 11 km (based on the Peak Sound Pressure Level (SPLpeak) for harbour porpoise). Basing the proposed mitigation on the 3.6 km range for the single strike sound exposure level (SEL), as the draft MMMP currently does, is misleading and inappropriate. The MMO recommends that this is amended.	SEL_{ss} is appropriate for the assessment of noise from UXO detonations as this is a 'single pulse' noise source; there is only one detonation to consider. In this case, the SEL_{cum} value would be the same as the SEL_{ss}. As stated within ***Appendix 11.4*** (APP-468) an assessment in respect of SEL is considered preferential at long range as it takes into account the overall energy and the smoothing of the peak is less critical. However, it should be noted that assessments using the SPL_{peak} criteria has also been completed.
Dredge and Disposal - Site Characterisation Report (Windfarm)		
038	2.5.1 Figure 3 of the site characterisation report (document 8.15) shows the sample sites for contaminant testing. Three sites are located within the windfarm area, and eight are located within the cable corridor. OSPAR guidelines for the disposal of dredged material at sea recommend that at least three sample stations should be sampled for dredge campaigns up to 25,000m³. As the likely foundation type will require between 8,000m³ and 27,000m³, it is reasonable to infer that each foundation site will require three	The form, location and number of these contaminant sample sites was agreed with the MMO initially through a method statement (April 2017, which was included as Appendix 2.2 of the Scoping Report[35]) and the final revised plan as part of a cable corridor briefing note in February 2018. Following the amendment to the order limits of East Anglia TWO, one of the four contaminant sample sites now lies outside of the windfarm site,

[35] East Anglia TWO Offshore Windfarm Scoping Report https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-000059-EAN2%20-%20Scoping%20Report.pdf

No	Relevant Representation	Applicant's Comments
	sample stations. The proposed number of turbines is 75, thus, the immediate recommendation for sampling would be to recommend approximately 225 sample stations for the wind farm area. However, given the likely Particle Size Distribution (PSD) of the area, which is likely to be sand and gravel, material is likely to be lower risk in terms of sediment contaminant levels compared to finer PSD material such as silt. We would not therefore consider it necessary to test for 225 samples.	leaving three contaminant samples within the revised East Anglia TWO windfarm site.
039	2.5.2 The MMO is not convinced that three sample stations for the entirety of the wind farm area is sufficient to assess the suitability of the material for disposal at sea. It is reasonable to deem acceptable a reduced regime of sampling compared to what would be recommended by OSPAR guidelines, however, any reduced sampling regime should be sufficient to adequately represent the area both in spatial extent and in terms of the activities proposed regarding the volume of dredged material.	Given the low levels of contaminants sampled historically throughout the region (e.g. for East Anglia THREE and Norfolk Vanguard offshore windfarms) and, given the prior agreement with the MMO on sample locations it is proposed that this issue can be closed out at this stage.
040	2.5.3 The MMO notes that when considering the wind farm area as a whole i.e. 75 turbines ranging between 8,000m³ and 27,000m³ per foundation, the volume of dredged material ranges between 600,000m³ and 2,025,000m³. However, the site characterisation report states in table 3 (page 18) that the worst case scenario for total foundation installation would be approximately 1,750,000m³. The applicant states that approximately 3,000,000m³ of material will be required to be dredged in a worst case scenario when including other operations such as platform construction, This range falls into the OSPAR recommendation band of 500,000 to 2,000,000m³, for which between 16 and 30 sample stations are recommended, with an additional 10 stations for each subsequent 1,000,000m.	The sea bed preparation (i.e. dredging) values provided in the ES are based on worst case calculations from jackets on suction caisson foundations. The actual foundation type to be used is yet to be determined. Following detailed project design, the foundation type and likely volumes of material to be dredged will be more accurately understood. Nonetheless, the Applicant considers that the low levels of contaminants present in the region as indicated by the project-specific surveys (see ***section 8.5.3.2*** of ***Chapter 8 Marine Water and Sediment Quality*** (APP-056)) together with the historically low levels of contaminants found at other windfarms (e.g. Norfolk Vanguard and East Anglia

No	Relevant Representation	Applicant's Comments
		THREE), does not warrant further pre construction contaminant sampling as it would be disproportionate to the risk. In addition, the project specific sampling strategy was agreed with the MMO and Cefas through the Evidence Plan process, initially through the submission of a Method Statement (April 2017) with the final revised plan provided as part of a cable corridor briefing note in February 2018.
041	2.5.4 The site characterisation report anticipates that approximately 22,500m³ sediment release per day from EA2 construction activities. This is taken from modelling studies conducted for the East Anglia One North Wind farm. The MMO presumes from the wording that this relates to sediment disturbance from either ploughing or foundation installation. The MMO is hesitant to describe this as disposal, as, similar to water injection dredging, the return of dredged material back to its site of origin or remaining within the local environment would not fit the description of disposal in the frame of marine licensing.	The 22,500m³ of sediment release per day is based on a Delft3D plume modelling study (ABPmer 2012)[36] from East Anglia ONE windfarm which simulated sediment disposal at the water surface at 15 wind turbine locations. This is not related to ploughing or foundation installation. Given that the sediment release was simulated at the water's surface it is considered that this analogue is appropriate for disposal volumes in the windfarm site.
042	2.5.5 As such, if this material comprises of fine sands and silts, it is likely that up to 40 stations would be required. As stated in previous points however, the MMO would be content to consider a reduced sampling regime. It has been noted that no explanation as to what the applicant has classified "sand" to be in this process. Figure 2 indicates that most of the area is largely sand, however, there is no indication whether these are fine or coarse sands. As such, the MMO would request that the applicant provides the MMO with the PSD data in full.	The Applicant considers that the low levels of contaminants present in the region as indicated by the project-specific surveys (see ***section 8.5.3.2*** of ***Chapter 8 Marine Water and Sediment Quality*** (APP-056)) together with the historically low levels of contaminants found at other windfarms (e.g. Norfolk Vanguard and East Anglia THREE), does not warrant further pre construction contaminant sampling as this would be disproportionate to the risk. In addition, the project specific sampling strategy was agreed with the MMO and Cefas through the Evidence Plan process, initially through the

[36] ABPmer (ABP Marine Environmental Research Ltd). (2012). East Anglia Offshore Wind Project ONE Windfarm: Marine geology, oceanography and physical processes environmental baseline. Report R3945. May 2012.

No	Relevant Representation	Applicant's Comments
		submission of a Method Statement (April 2017) with the final revised plan provided as part of a cable corridor briefing note in February 2018. Final details on the installation will be provided to the MMO for approval in the form of a Construction Method Statement and its requisite components such as the cable laying plan as secured by the DML condition 17 of the generation DML and condition 13 of the transmission DML.
043	2.5.6 The MMO requests that the applicant provides sediment analysis data in full so that an appropriate analysis of PAH and PCB levels can be conducted in respect of Cefas' approach to interpreting contaminant levels which considers an effects-range system. This effects-range analysis cannot be conducted on average values alone, and requires data in full.	As discussed above, the project-specific contaminant survey results indicate low concentration levels (see ***section 8.5.3.2*** of ***Chapter 8 Marine Water and Sediment Quality*** (APP-056)) which is in keeping with other surveyed offshore windfarms in the former East Anglia Zone. The Applicant therefore questions the usefulness in provision of the sediment analysis data at this stage of the development process given that sediment contamination has not been highlighted as an important issue for the Project.
044	2.5.7 The MMO notes that at the scoping stage it was requested that the applicant provide the following information within the ES: • Dredging method • Dredging depth • Dredging volume • Disposal site (location, reason to designate a new site, characteristics)	The Application materials provide details of potential methods and worst cases for dredging and disposal based on the Rochdale Envelope approach. Dredging method, depth and volume are described in the worst case scenario ***Table 9.2 Construction Impact 2*** of ***Chapter 9 Benthic Ecology*** (APP-057). Prior to construction, the Applicant will submit a Construction Method Statement and associated cable laying plan which will inform on the likely seabed preparation activities and subsequent sediment disposal, as secured by condition 17 of the generation DML and condition 13 of the transmission DML. Therefore, the MMO will be made fully aware of the disposal requirements when the final project design is available.

No	Relevant Representation	Applicant's Comments
045	2.5.8 The applicant has not indicated the depth of material to be dredged. Neither have they indicated whether any sample analysis was conducted on subsurface sediment, i.e. sediment deeper than 1m below the seabed surface. The MMO consider this essential should any dredging below 1m of the seabed surface be required. In document the site characterisation report, it appears that there is indeed potential for subsurface dredging. The applicant has not determined the dredging method to be used. The MMO therefore requests clarification on the above points regarding dredging methodology.	The form, location and number of sample sites was agreed with the MMO initially through a method statement (April 2017) and the final revised plan as part of a cable corridor briefing note in February 2018. The Application materials provide details of potential methods and worst cases for dredging and disposal based on the Rochdale Envelope approach. Dredging method, depth and volume are described in the worst case scenario ***Table 9.2 Construction Impact 2*** of ***Chapter 9 Benthic Ecology*** (APP-057). As secured by a condition in the DML to submit a Design Plan and associated Cable Laying Plan which will inform on the likely seabed preparation activities and subsequent sediment disposal, the MMO will be made fully aware of the disposal requirements when the final project design is available.
046	2.5.9 The applicant has described a number of disposal options for EA2. Regarding disposal sites, the applicant has pointed to TH222, TH223, TH224 and TH024 as the closest large disposal sites, but notes that these sites can only receive material from their respective wind farms. The applicant should note that disposal sites are not entities licensed to receive material but rather applicants become licensed to dispose of material at a specific disposal site. It is not clear from the document whether the applicant is proposing to designate a new disposal site or utilise an existing one. The MMO recommend that the applicant clarifies their intentions regarding disposal, and must provide the MMO with either relevant coordinates or a KML shapefile should they wish to officially designate any new site.	For clarity, ***Figure 1*** in ***Appendix 6*** of this document shows the area the Applicant is applying to designate (i.e. the entire East Anglia TWO windfarm site) as a disposal site with the exception of the section of disposal site HU212 which bisects the East Anglia TWO windfarm site. Note also for clarity the application to designate the entire offshore cable corridor, as described in the ***Site Characterisation Report (Offshore Cable Corridor)*** (APP- 593)) Coordinates delineating the proposed disposal site are provided in Appendix 1 of the ***Site Characterisation Report (Windfarm Site)*** (APP-592).

No	Relevant Representation	Applicant's Comments
Policy and Legislative Context		
047	3.1.1 The MMO stated the following in our Section 42 response (21 March 2019): 'The MMO has attached an example template to use when considering the Marine Plans (See Appendix A). We would advise using something similar when you submit future documents in support of your application to demonstrate how you have considered the relevant marine plans and policies. These can be found using the MIS and policy information on the following website: http://mis.marinemanagement.org.uk'	Please see the Applicant's response within the Marine Policy Clarification Note (***Appendix 1***) which has considered the marine plans and policies scoped in by the 'Explore Marine Plans' tool as suggested by the MMO.
048	3.1.2 The Applicant has considered the Marine Policy Statement (MPS), the East Marine Plan and the shared template in Development Consent and Planning Statement (document reference 8.2).	
049	3.1.3 In November 2019, MIS was replaced with Explore Marine Plans (EMP), which is available here: https://www.gov.uk/guidance/explore-marine-plans	
050	3.1.4 The MMO has used EMP to identify the East Marine Plan policies that are in scope. Table 1 identifies the policies that have been scoped in but do not appear to have been considered by the applicant.	
051	3.1.5 The MMO recommends that the applicant demonstrates in document 8.2 that all East Marine Plan policies, which have been scoped in via EMP, have been considered. The Applicant should consider: Policy AQ2, CAB1, CC1, CC2, EC1, GOV1, GOV2, GOV3, MPA1, OG1, SOC1, SOC3, TR1, TR2, TR3	

No	Relevant Representation	Applicant's Comments
Marine Geology, Oceanography and Coastal Processes		
052	3.2.1 Regarding the use of plastic fronded mattresses as a scour protection tool, the MMO noted that fronded mattresses remains a potential scour protection measure (Chapter 6.1.8), with the applicant stating that "mattresses are being trialled at East Anglia ONE which will establish a knowledge base which can be used at post-consent for East Anglia TWO. The frond mats will be weighed prior to installation and results made available for break tests. Upon recovery, the mats will be visually inspected and re-weighed, using the same test equipment to allow a direct comparison of before and after results" and that "the use of fronded mattresses will be decided post-consent based on the monitoring commitment above. This will be confirmed through the Construction Method Statement, to be provided pre construction for approval by the MMO as secured under the requirements of the draft DCO". Whilst the MMO is content with this approach (i.e., ongoing research and a decision made following an assessment of the monitoring results pre construction), the MMO's preference remains the avoidance of the introduction of frond mattresses containing hard plastic into the marine environment as far as possible.	Noted.
053	3.2.2 While the MMO is satisfied that the applicant has followed standard EIA methodology in an attempt to minimise the proposed projects potential impact on environmental receptors. However, we are cautious of the conclusions drawn and consider the existing knowledge base to be insufficient to know, with certainty, whether or not the cumulative impact of the OWF sector will have a significant impact on marine geology, oceanography and physical processes and subsequently, upon other receptors (e.g., benthic fauna and fisheries).	Noted. As discussed in the Wave Climatology Clarification Note (***Appendix 2*** of this document), the assessment undertaken was precautionary and conservative to directly address the ongoing uncertainty and complexity of the associated environmental systems in the southern North Sea.

No	Relevant Representation	Applicant's Comments
	This is primarily due to the complexity of the environmental systems in which OWF typically exist (e.g., southern North Sea) and the temporal scale over which impacts on marine geology, oceanography and physical processes would likely manifest to a degree that they could be measured and assigned a cause with a sufficient degree of confidence, following the impact pathway receptor model generally applied. Whilst the models used to predict potential impacts conclude no significant impact, and the MMO agree with that conclusion based on existing knowledge and the information presented within the ES, it is believed that these models are based on an imperfect understanding of the system and unforeseen impacts possible over the lifespan of the proposed and other OWF projects. The significance of these impacts is also considered unlikely to be understood in the foreseeable future. Similarly, a change in baseline condition of 5% was previously agreed to represent the "accepted threshold of significance". Again, whilst it is understood that there is a need for a pragmatic approach, this 5% is nominal and should be treated with caution.	
054	3.2.3 As noted by the applicant in the "In Principle Monitoring Plan" (Chapter 8.13), the guiding principles for monitoring state that "All consent conditions, which would include those for monitoring, should be "necessary, relevant to planning, relevant to the permitted development, enforceable, precise and reasonable in all other respects"" (the six tests, (National Policy Statement (NPS))). Whilst it is acknowledged that the conclusions of the ES are that there will be no significant impacts on the wave climate, given the proposed project's greater proximity to the coastline (in comparison to previous OWF projects) and the long-term uncertainty described in the above comment, it is recommended that wave data be collected at a location situated between the proposed site and the "East Anglia sensitive coast" receptor prior to construction (baseline) and for a sufficient	Please see the Applicant's response within the Wave Climatology Clarification Note (***Appendix 2*** of this document) which clarifies the assessment conclusions regarding wave climate, and why in the context of the assessed impacts, wave data collection is not considered to be required. <u>Additional clarification following SoCG meeting (19th March 2020)</u> The Applicant issued the above clarification note to the MMO and Cefas on the 12th March 2020. A Statement of Common Ground meeting was held on the 19th March 2020 between the Applicant and the MMO and Cefas where it was agreed that additional wave monitoring for the proposed projects is not required.

No	Relevant Representation	Applicant's Comments
	period post-construction. This would allow an assessment of the accuracy of potential impacts modelled and consequently, the validity of the ES conclusions. For example, this could involve the deployment of an acoustic wave and current (AWAC) profiler or wave buoy. This would contribute to the knowledge base relevant to planning and address uncertainties and assumptions described above.	
055	3.2.4 Regarding sand wave levelling, the applicant states that "the dynamic nature of the sand waves in this area means that any direct changes to the sea bed elevation associated with sand wave levelling are likely to recover over a short period of time due to natural sand transport pathways". Whilst natural processes may result in mobilised sediments reforming sand wave features, it is improbable that this will be with the same configuration. This will also have an additional impact on localised tidal flows and subsequent sediment transport. Future removal of foundations during decommissioning would likely again reset this configuration (rather than returning to the existing baseline sand wave configuration). It is acknowledged that these impacts will be localised and unpredictable, but it should be noted that "recovery" does not necessarily mean a return to the natural baseline condition.	Noted.
056	3.2.5 The applicant recognises the importance of minimising disturbance to circulatory sediment transport pathways that exist between the coast and Sizewell Bank and their choice of landfall location and commitment to install the export cable at the landfall location using HDD techniques is welcomed. Regarding the potential landfall location (as shown by the blue hatched area in Figure 7.7), it is recommended that the punch out location be located as far south and east as possible within this area, in order to minimise potential	Noted

No	Relevant Representation	Applicant's Comments
	disturbance to bedload sediment transport in this region across Thorpeness headland and between the headland and Sizewell Bank.	
Benthic Ecology		
057	3.3.1 The 2018 side-scan survey showed no evidence of reef in the offshore cable corridor (section 9.5.5.1.1 of the ES, paragraph 156). However, the findings of the 2017 side-scan survey within the windfarm site don't appear to be described in the ES. This information should be added to section 9.5.5.1.1.	Upon further review of the 2017 geophysical survey data report, it is apparent that interpretation of the dataset to identify potential areas of *Sabellaria* reef was not undertaken in the 2017 survey. Nonetheless, as indicated by the MMO and their Relevant Representation and Section 42 responses, any suspected areas of *Sabellaria* reef would need to be ground truthed with drop-down video surveys which is committed to in ***Chapter 9 Benthic Ecology section 9.3.3.2*** (APP-057) and the ***In-Principle Monitoring Plan*** (APP-590).
058	3.3.2 The MMO notes that drop-down video will be used to confirm the presence or absence of Sabellaria reef during pre-construction surveys (section 9.5.5.1.1 of the ES, paragraph 156). We agree that pre-construction surveys for Sabellaria are appropriate, however we note that there may be visibility issues due to high turbidity in the area. The absence of Sabellaria reef should only be concluded from images/videos of sufficient quality to detect the feature if it were present. A freshwater lens or an ARIS camera may be required to obtain images of sufficient quality.	Noted
059	3.3.3 Sediments at the windfarm site are primarily sand and gravel (section 9.5.1.1 of ES), but some stations close to the shore on the cable corridor have predominantly silty sediments (section 9.5.1.2). It is important that contaminant samples are available for these stations, however it's not clear whether this is the case in the Benthic Ecology chapter of the ES. The MMO would request that the	Contaminant sample sites C1 and C19 were taken in the siltiest region of the offshore cable corridor (see ***Figure 8.2*** (APP-112) *and* ***Figure 9.3a*** (APP-117).

No	Relevant Representation	Applicant's Comments
	applicant clarify if contaminant samples were collected from stations with high silt/mud content?	
060	3.3.4 The number of individuals and taxa per grab sample and trawl are reported (paragraphs 122 and 141 of the ES, respectively). This information would be more useful if the sample area (i.e. the surface area of the grab and swept area of the trawl) was reported alongside.	Noted
061	3.3.5 The possibility that benthic ecology receptors will be indirectly affected by sediment suspension due to effects on phytoplankton growth or egg and larval survival has not been addressed. This is justified by the applicant, in Appendix 9.1 of the ES, on the basis that sediment suspension would result from activities that make up a relatively short period of the construction phase. However, there doesn't appear to be any indication in the Benthic Ecology chapter of how long this period would be. The MMO request additional quantitative details about the duration of exposure is required in this section if these potential indirect impacts are to be discounted.	***Chapter 7 Marine Geology, Oceanography and Physical Processes***, ***section 7.6.1.1*** (APP-055) describes the residency times for various sediment particle sizes. The expert-based assessment in that chapter suggests that, due to the sediment particle sizes present across the East Anglia TWO windfarm site, the sediment disturbed from the sea bed by the drag head of the dredger would remain close to the bed and rapidly settle. Most of the sediment released at the water surface from the dredger vessel would rapidly (order of minutes or tens of minutes) fall to the sea bed as a highly turbid dynamic plume immediately upon its discharge. Some of the finer sand fraction from this release and the very small proportion of mud that is present are likely to stay in suspension for longer and form a passive plume which would become advected by tidal currents. Due to the sediment sizes present, this is likely to exist as a measurable but modest concentration (tens of mg/l) plume for around half a tidal cycle (up to six hours). Sediment would eventually fall to the sea bed in relatively close proximity to its release (within a few hundred metres up to around a kilometre, along the axis of the tidal flow) within a short period of time (hours). At present it is not practical to accurately quantify the length of each individual offshore construction activity however it is estimated that a maximum of four dredging vessels could be working on site

No	Relevant Representation	Applicant's Comments
		simultaneously. These would be located at discreet areas throughout the offshore development area and it would be highly unlikely that each vessel would be dredging simultaneously and therefore the majority of the suspended sediment release events would be temporally distinct. This localised and short term impact coupled with the already highly turbulent nature of seabed sediments in the region would be highly unlikely to affect phytoplankton growth or egg survival at a level that is significant across the entire offshore development area. Note that ***Table 9.19*** in ***section 9.10*** of ***Chapter 9 Benthic Ecology*** (APP-057) signposts all of the inter-relationships between the benthic assessment and other related assessments within the EIA.
062	3.3.6 The MMO previously advised that the Hamon grab is not suitable for the collection of contaminant samples and this issue has not been addressed. The action of the Hamon grab mixes the sediment, which could result in the release of adsorbed contaminants and cause the sample to be unrepresentative of the actual contaminant load. The MMO advise that contaminant samples are collected from an intact sediment surface, which can be done using a Day grab in soft sediments or a Shipek grab in coarse sediments (Whomersley, 2014). If Hamon grabs are to be used for contaminant sampling, then the applicant should provide evidence to demonstrate that this approach is reliable.	This matter was discussed at the benthic ecology ETG 3 meeting on the 21st June 2019 at which Cefas advisers were present. It was agreed with the MMO and Cefas (and minuted) that this could be closed out as an issue given the low level of risk it presented and that the Applicant's survey contractors had initially attempted to sample using a Day grab and only used a Hamon grab after the Day grab failed to obtain a sample because of the coarse nature of the sediment in the survey area. Additional clarification following SoCG meeting (19th March 2020) The MMO and Cefas confirmed their agreement that this matter could be closed during a Statement of Common Ground Meeting on the 19th March 2020.
063	3.3.7 The MMO note that no benthic monitoring is proposed. The MMO recommends that grab samples should be collected to monitor the effect of turbine installation on sediment composition and benthic communities. This would allow the predicted effects on benthic ecology to be confirmed or otherwise.	As stated in ***Chapter 9 Benthic Ecology*** (APP-057), multiple studies indicate no / negligible impact with regard to benthic ecology (e.g. CMACS 2010; 2012; MMO 2014 and Marine Space 2015). Whilst it is acknowledged that the foundation designs proposed for the Projects are much larger than those monitored in these studies, the impact pathways would be the same. While each individual footprint area

No	Relevant Representation	Applicant's Comments
		impacted would be larger, there would be fewer individual impact areas given the recent technology advances allowing greater capacity generation from fewer wind turbines and therefore across the entire windfarm site, any impacts from the proposed projects would be likely to be comparable to those monitored. As a result, it is reasonable to assume that recovery rates would be comparable to the aforementioned studies. Therefore, the Applicant has concluded that there is no requirement for project-specific general benthic monitoring. This approach is in line with all recent (i.e. Round 3) offshore wind farm projects. Survey / monitoring is proposed with respect to potential *Sabellaria* reef (see ***section 9.3.3.2*** of ***Chapter 9 Benthic Ecology*** (APP-057) and the ***In-Principle Monitoring Plan*** (APP-590). Additional clarification following SoCG meeting (19th March 2020) At a SoCG meeting on 19th March 2020, the MMO's advisors, Cefas, expanded on this issue to state that whilst they acknowledged that impacts on benthic organisms within the proposed Projects would be minimal, there is a degree of uncertainty in respect of the potential impacts of larger turbines and the scale of larger windfarms in comparison to the Round 1 and Round 2 windfarms at which much of the monitoring of benthic communities has been undertaken. Accordingly, Cefas stated that the wider industry would benefit from a strategic monitoring programme to address this data gap. Having considered this point, the Applicant's position is that project-specific monitoring of benthic organisms (other than that already proposed for *Sabellaria* reef (see below)), is unwarranted given the low sensitivity of organisms to disturbance in the region and the low risk that the Projects present. Moreover, programmes such as The Crown Estate Enabling Programme and BEIS Strategic Environmental Assessment (SEA) Research

No	Relevant Representation	Applicant's Comments
		Programme are more appropriate vehicles for consideration of strategic monitoring.
064	3.3.8 Regarding sediment suspension and deposition during the construction phase, the final sentence in paragraph 208 of the ES (section 9.6.1.2.2) states that the receptors have low sensitivity to smothering, whereas Table 9.13 indicates that if smothering is heavy then S. spinulosa has medium sensitivity. The MMO presume that a low sensitivity was assigned because sediment deposition associated with cable corridor activities won't exceed 5cm thickness. However, this isn't clear from the text and should be clarified.	This is a typographic error. The sensitivity in paragraph 208 should in fact read medium given that at this stage (notwithstanding the acknowledgement that the extent of smothering would likely be much less than that during foundation installation), it is not possible to ascertain whether smothering would be less than 5cm and therefore the precautionary principle needs to be applied. This results in an evaluation of minor adverse when considering a medium sensitivity of receptor and low magnitude of impact and thus the conclusion of the assessment has not changed.
065	3.3.9 The MMO notes that an indication of how long smothering is likely to last should also be added to section 9.6.1.2. Sabellaria spinulosa is thought to be able to tolerate smothering for several weeks (Jackson & Hiscock 2008; cited elsewhere in the ES), so if deposited sediments would be dispersed within this period we would have greater confidence that Sabellaria reef would not be significantly adversely affected by this pressure. We note that it's indicated later in the ES that spoil heaps would take years to disperse (section 9.6.1.6, paragraph 233).	As described in ***Chapter 7 Marine Geology, Oceanography and Physical Processes*** (APP-055) suspended sediment from dredging of near surface sediment would be dispersed in around a tidal cycle at the longest and therefore smothering from dredging is not expected to persist for long periods and is therefore evaluated as being of minor adverse significance (see ***section 9.6.1.2.1*** of ***Chapter 9 Benthic Ecology*** (APP-057)). The reference to spoil heaps in paragraph 233 is in relation to spoil material generated by drilling for foundations. While the denser spoil material would persist in the environment for longer than near-surface sediment, the Applicant's commitment (see below) to avoid siting foundations and disposal of dredge material in the vicinity of sensitive features (i.e. *Sabellaria* reef) would avoid direct interaction with *Sabellaria* reef and therefore it is not considered that smothering of *Sabellaria* reef from spoil generated by drill material would result in a significant impact.

No	Relevant Representation	Applicant's Comments
		Micrositing mitigation would be agreed through consultation with the MMO and Natural England on the identified sensitive features which are required to be avoided (e.g. *Sabellaria* reef) including avoidance of interaction with spoil material. Pre-construction surveys required for micrositing are described within the ***In Principle Monitoring Plan*** (APP-590). These surveys will then inform the layout which will be agreed post consent through the Design Plan (submission of which is conditioned in the DML) which will be submitted to and approved in writing by the MMO. With regard to the drilling of foundations, feedback from the East Anglia ONE team was that there was no requirement for this for East Anglia ONE, however it should be noted that ground conditions may differ at the East Anglia TWO and East Anglia ONE North windfarm sites and therefore drilling for foundations may be required subject to the findings of the pre-construction site investigations. Note that ***Table 9.19*** in ***section 9.10*** of ***Chapter 9 Benthic Ecology*** (APP-057) signposts all of the inter-relationships between the benthic assessment and other related assessments within the EIA.
066	3.3.10 Regarding underwater noise and vibration during the construction phase (section 9.6.1.4 of the ES), sensitivity is assessed as 'medium' and impact magnitude as 'negligible'. From this, an impact of negligible significance is concluded. However, the MMO notes that according to the impact significance table (Table 9.10), an impact of minor adverse significance should have been concluded. The MMO requests clarification and the assessment should therefore be corrected.	MMO are correct, the final impact significance should in fact be minor adverse.
067	3.3.11 Regarding direct and indirect impacts on sites of marine conservation importance during the construction phase (section 9.6.1.5 of ES), sensitivity and impact magnitude are both assessed	MMO are correct, the final impact significance should in fact be minor adverse for both of these impacts.

No	Relevant Representation	Applicant's Comments
	as 'low'. From this, negligible adverse impacts are concluded (paragraphs 222-223 and 227-228). Again, according to the impact significance table (Table 9.10), an impact of minor adverse significance should have been concluded.	
068	3.3.12 Regarding impacts of habitat change during the operation phase, paragraph 242 (section 9.6.2.1.1 of the ES) concludes that the impact of habitat loss during the operation phase will be of minor adverse significance, but does so without stating the sensitivity of the receptor. Similarly, paragraph 243 states that because impact magnitude is negligible, the overall impact significance is negligible. This isn't necessarily the case according to the assessment method used (see Table 9.10). The MMO requests that the sensitivity should be clearly stated and justified in both cases.	Noted. The sensitivity of the receptor (i.e. benthic communities in the windfarm site) would be at most medium. This combined with a low magnitude of impact results in an overall significance of minor adverse. Therefore, the assessment conclusion presented in the ES remains valid.
069	3.3.13 Regarding impacts of physical disturbance during the operation phase (section 9.6.2.2 of the ES), it states in paragraph 253 that a minor adverse impact is concluded, in part, because of the ability of benthic ecology receptors to recover rapidly. However, it is stated earlier in the ES that it would take two years for S. spinulosa abundance to recover (paragraph 191), while a mature S. spinulosa reef would take up to five years to recover (paragraph 192).However, the MMO has noted that according to paragraph 250 in the ES, it is expected that jack-up barges could be used at each wind turbine every two years and that repair and reburial of cables could occur every five years. The possibility that these activities would prevent recovery or establishment of S. spinulosa reef should be considered and, if necessary, the impact significance adjusted.	As conditioned in the DML, there is a requirement for a Design Plan which would detail how sensitive features including *Sabellaria* reef will be avoided, in accordance with the results of the pre-construction surveys which will be discussed with the MMO as described within the ***In-Principle Monitoring Plan*** (APP-590).
070	3.3.14 As noted for the construction phase, sensitivity to smothering is said to be low in the assessment for sediment suspension and subsequent deposition during the operation phase (section 9.6.2.3).	Contrary to the construction phase, any increase in suspended sediments during operation would not be at a level which could result in heavy smothering of *Sabellaria* reef and therefore the MMO are correct

No	Relevant Representation	Applicant's Comments
	Again, Table 9.13 indicates that if smothering is heavy then S. spinulosa has medium sensitivity, so we presume it is known that this receptor will not be subjected to heavy deposition during the operation phase. This requires clarification.	in their assumption that the sensitivity classification of low has been assigned on the basis that *Sabellaria* reef would only be subjected to light smothering during operation.
071	3.3.15 Regarding the colonisation of infrastructure during the operation phase, the first sentence of paragraph 268 of the ES (section 9.6.2.4) states that there would be a change in habitat across an area of up to 356km2. The MMO presume this means that the area of new colonisable substrate (~2km2; see paragraph 263) would be confined to an area of 356km2. This should be clarified.	The MMO are correct, the intended meaning is that the area of new colonisable substrate (estimated to be 2km^2) would be confined to within an area of 356km^2.
072	3.3.16 The MMO notes that colonisation of foundations and cable protection is scoped out of the Cumulative Impact Assessment (CIA) because of the localised nature of the pressure (Table 9.15). It is suspected that the many structures associated with various windfarms in the area could together enhance the dispersal of fouling organisms in the region, possibly also facilitating the spread of non-native species. Unless there is a good reason to discount this possibility, the MMO consider that this potential impact should be included in the CIA.	The Applicant and its contractors are committed to applying best practice techniques including appropriate vessel maintenance as outlined in MARPOL (see ***Chapter 8 Marine Water and Sediment Quality section 8.33*** (APP-056)). Given that the majority of other vessels operating in this region of the North Sea are also likely to be complying with MARPOL, then the potential for non-native species to spread and colonise windfarm infrastructure is limited. As discussed in ***section 9.6.2.7 of Chapter 9 Benthic Ecology*** (APP-057), the relatively large distances between individual wind turbines and potential scour infrastructure within the individual windfarms would not represent any form of linked reef-like feature. <u>Additional clarification following SoCG meeting (19th March 2020)</u> At the cumulative scale, there is inherent uncertainty in the ability of individual offshore windfarms to act as vectors for the spread of non-native species. However, it is reasonable to assume that if the potential vector capability of infrastructure within individual windfarms is limited then the potential for spread of non-natives between windfarms is even more unlikely given the much larger distances involved. In order to determine the vector capability of offshore windfarms, an intense

No	Relevant Representation	Applicant's Comments
		strategic monitoring campaign would be required which the Applicant considers to be outside of the scope of the individual Projects and the Applicant contends the impact being scoped out of the CIA is justified.
073	3.3.17 The MMO recommends that given the structure of section 9.5 of the ES, it seems that the heading for section 9.5.2 should be corrected to 'Infaunal communities' (not 'Faunal communities'), and that the heading for section 9.5.2.1 should only include infauna (not epifauna). We presume the reason for this may be that some epifauna (e.g. Sabellaria spinulosa) were found in grab samples. This should be clarified in the text and/or the heading amended, as appropriate.	Noted, the headings should read 'Infaunal Communities' and 'Infauna'.
074	3.3.18 The final sentence of paragraph 225 (section 9.6.1.5 of the ES) appears to be mixing sensitivity (i.e. the recoverability of benthic habitats and species) with impact magnitude. The MMO requests it should be reworded for clarity.	Acknowledged. For clarity, the final sentence of paragraph 225 should read: *Therefore, any effects would be small scale, temporary and the recoverability of the benthic habitats and species throughout the southern North Sea is high. As a result, a sensitivity classification of low and a magnitude of effect of low have been assigned.*
075	3.3.19 Paragraph 226 reads "the zone of effects from the proposed East Anglia TWO project are small resulting in changes in baseline wave height of less than ±1% and therefore not significant and would not affect these sandbanks". This seems to be claiming that the activity will result in small changes to wave height, which we believe is not the actual claim being made. The MMO suggest that "resulting in changes…" is replaced with "as a result of variability…" or something similar.	Noted. The sentence should read: *Wave modelling (see Appendix 7.2) determined that under all wave directions modelled, the zone of effects from the proposed East Anglia TWO project are small as a result of variability in baseline wave height of less than ±1% and therefore not significant and would not affect these sandbanks.*

No	Relevant Representation	Applicant's Comments
Fish Ecology		
076	3.4.1 The MMO is concerned that based on the information in paragraph 46, it seems that only data from the surveys undertaken in December has been used to provide information on larval abundance for the Downs herring stock. Clarity as to whether the IHLS data for the Downs population presented in Figures 10.15, 10.16 and 10.17 includes data for all three surveys should be provided.	This was an error in the data processing stage, ***Figures 10.15, 10.16*** and ***10.17*** (APP-143, APP-144, APP-145) have now been updated with International Herring Larvae Survey (IHLS) data from all three larvae surveys carried out in specific periods and areas, following autumn and winter (September, December and January) spawning activity of herring from north to south. These amended figures are shown in the Fish and Shellfish Ecology Clarification Note ***Figures 1-3 (Appendix 3*** of this document***)***.
077	3.4.3 Figures 10.34 -10.45 present the Temporary Threshold Shift (TTS) noise contour for fish species that have spawning and nursery grounds overlapping, or near, to the EA2 site. The modelling used to inform these outputs is based on a fleeing receptor model and pin pile. The title on each of these figures is given as: 'Spawning and Nursery Grounds in Relation to Worst Case Noise Impact Contour (Fleeing Model)'. The MMO does not consider this to represent the worst case scenario for the following reasons;	As discussed in ***section 2.1.1*** of ***Appendix 11.4*** (APP-468), the noise modelling was updated to include a stationary animal model and was presented in ***Appendix 10.3*** (APP-464).
078	3.4.3.1.1 Use of fleeing receptor; The MMO raised major comments regarding this during the our section 42 response during the PEIR stage that we did not support the use of a fleeing receptor model for fish and provided recommendations for how best to present the modelled data for noise, using monopiling and a stationary receptor as the worst-case scenario.	As presented in ***Figures 10.34*** to ***10.45*** (APP-163 to APP-173) and in ***Table 10.22*** of ***Chapter 10 Fish and Shellfish Ecology*** (APP-058), for the fleeing animal model, the worst case scenario was pin pile as the impact ranges are larger for fleeing animals due to the strike rate used (40 strikes per minute see ***Table A11.3*** in ***Appendix 11.4,*** compared to 30 strikes per minute for monopiles). The ranges calculated for fleeing animal are highly dependent on the noise received when it is closer to the pile; a faster strike rate means it experiences a higher noise dose when the receptor is close to the pile and the noise levels are higher. As discussed in ***section 2.1.1*** of ***Appendix 11.4*** (APP-468), the noise modelling was updated to include a

No	Relevant Representation	Applicant's Comments
		stationary animal model and was presented in ***Appendix 10.3*** (APP-464).
079	3.4.3.1.2 The MMO notes that the applicant has used pin pile hammer energy for the modelling in figures 10.34-10.45 (pin piling using a hammer energy of 2400kJ). However, monopiles are expected to require a hammer energy of 4000kJ but the modelled noise contours for this higher energy level have not been included in the figures, therefore the applicant has not presented the MMO do not consider this to be the worst-case scenario in terms of noise propagation, especially considering the type of wind turbine and installation methods to be used at EA2 have not yet been determined.	As stated above, for the fleeing animal model (as presented in ***Figures 10.34*** to ***10.45*** (APP-163 to APP-173)), the worst case scenario was pin pile as the impact ranges are larger for fleeing animals due to the strike rate used (40 strikes per minute see ***Table A11.3*** in ***Appendix 11.4,*** compared to 30 strikes per minute for monopiles). Stationary animal modelling was also undertaken, and the results and figures were presented in ***Appendix 10.3*** and ***Figures 10.3.1*** to ***10.3.12.*** The spatial worst case for stationary animals is larger for monopiles as a higher number of strikes were used (8850 strikes for monopiles (***Table A11.2*** in ***Appendix 11.4***) compared to 6760 for pin piles). As the stationary animal modelling assumes that the receptor stays in the same place throughout piling, the strike rate is not important, and the number of strikes dictates the differences in impact ranges. This was the worst case scenario that was presented in ***Figures 10.3.1*** to ***10.3.12*** and assessed in ***Appendix 10.3.*** Further clarification on the stationary modelling results and the worst case scenarios presented in the ES is provided in the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document).
080	3.4.3.1.3 The use of Coull et al. (1998) to define herring spawning grounds; The data provides broadscale historical information on known herring spawning grounds but does not account for the spatial variations in spawning locations than can be seen between years, as demonstrated by IHLS data in Figures 10.15 – 10.17.	Whilst data from Coull et al. (1998)[37] presenting herring spawning grounds was shown in figures in the ES, the spatial variations in spawning locations was also presented in ***Figure 10.45*** (APP-173). In this figure, the 10 year IHLS has been mapped against noise contours for both the fleeing (***Figure 10.45***) and stationary (***Figure 10.3.12*** in ***Appendix 10.3*** (APP-464) animal models.

[37] Coull, K., Johnstone, R. and Rogers, S. (1998) Fisheries sensitivity maps in British Waters. UKOOA Ltd, Aberdeen, pp. 63.

No	Relevant Representation	Applicant's Comments
		As discussed in the above response, ***Figures 10.45*** and ***10.3.12*** have been updated with IHLS data from all three larvae surveys carried out in specific periods and areas and are shown in ***Figures 4 and 5*** of the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document). Additional clarification following SoCG meeting (19th March 2020) During a Statement of Common Ground Meeting on 19th March 2020, the MMO requested additional figures displaying 10 year IHLS data for the January surveys only, which has been mapped against noise contours for both the fleeing and stationary models and presented in ***Figures 6 and 7*** of the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document).
081	3.4.4 It is acknowledged that the applicant has provided a summary of the impact ranges in Tables 5.49 to 5.60 including those based on a 4000kJ monopile and a stationary receptor. However, these have not been presented in the format requested by previous advice given at the PEIR stage and it is also recognised that an effort has been made to present the TTS noise contour over IHLS data showing larval abundance for all UK herring stocks including the Downs (Figure 10.45). However, this figure is based on a fleeing model and pin pile so again, it is not the worst-case scenario.	For stationary receptors the worst case scenario is for monopile foundations, this was shown in ***Figures 10.3.1*** to ***10.3.12 of Appendix 10.3*** (APP-464)***. Figure 10.3.12*** presents the TTS noise contour over IHLS data showing larval abundance for all UK herring stocks including the Downs for the stationary animal model for monopile impact ranges. Further clarification on the stationary modelling results and the worst case scenarios presented in the ES is provided in the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document).
082	3.4.5 The MMO notes that there is an overlap of noise and vibration with the Downs herring spawning ground (as indicated in Figure 10.39), although due to the parameters used to inform the modelling, the extent of the full overlap is unclear. Accordingly, based on the evidence presented it is also unclear whether a seasonal piling restriction is necessary to mitigate noise impacts for spawning herring.	As noted by the MMO (paragraph 3.4.3.1.3) Coull et al. (1998) does not account for the spatial variations in spawning locations and therefore is not representative of where the Downs stock is located. The IHLS dataset shows that the key area for herring spawning is located further to the south towards the English Channel. This was presented in ***Figure 10.3.12*** of ***Appendix 10.3*** (APP-464). This figure has been updated with IHLS data from all three larvae surveys carried out in specific periods and areas, as discussed below, and is shown in ***Figure 5*** of the Fish and Shellfish Ecology Clarification Note

No	Relevant Representation	Applicant's Comments
		(***Appendix 3*** of this document). As described above, an additional figure displaying 10 years of January only survey data has also been provided (***Figure 7***). Additional clarification following SoCG meeting (19th March 2020) These figures present the IHLS small herring larvae abundance (2007-2017) in relation to the worst case noise impact contour (monopiles) for a stationary animal model. This shows that there is no overlap with areas of high small larvae abundance, neither for the three months' worth of survey data nor the January only data. Furthermore, for the reasons given in ***paragraphs 371 – 373*** of ***Chapter 11 Marine Mammals*** (APP-059), it is unlikely that hammer energies would reach maximum (100% energy) and therefore any potential piling impact on the Downs Stock would be considerably smaller than that presented in ***Figures 5*** and ***Figure 7***. Therefore, the Applicant considers that a seasonal piling restriction would not be necessary.
083	3.4.6 The MMO therefore recommended that the applicant presents revised noise modelling for a more accurate worst-case scenario based on 4000kJ monopile and a stationary receptor.	The worst case scenario was presented in ***Figure 10.3.12*** of ***Appendix 10.3*** (APP-464) has been updated with IHLS data from all three larvae surveys carried out in specific periods and areas, as discussed below, and is shown in ***Figure 5*** of the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document). Additionally, 10 year IHLS data for the January surveys only has been mapped against noise contours for both the fleeing and stationary models, and are displayed in ***Figures 6 and 7*** of the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document). Further clarification on the stationary modelling results and the worst case scenarios presented in the ES is provided in the Fish and Shellfish Ecology Clarification Note.

No	Relevant Representation	Applicant's Comments
084	3.4.7 It is understood that Downs herring spawning activity in northern parts of the spawning grounds occurs later in the season compared to those grounds further south in the English Channel, please see Annex 1 for examples of this taken from ICES (2014 and 2016) which demonstrate the variations in larval abundance according to the periods in which surveys were carried out. With this in mind, the MMO recommend that mapped noise contours should be overlain over 10 years of IHLS data which has been consolidated by IHLS survey period (i.e. 16-31st December 2008-2018, 1-15th January 2008-2018 and 16-31st January 2008-2018).	The worst case noise contours for a stationary animal model has been overlain over 10 years of IHLS data which has been consolidated by IHLS survey period, as shown in ***Figure 5*** of the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document). Additionally, 10 year IHLS data for the January surveys only has been mapped against noise contours for both the fleeing and stationary models, and are displayed in ***Figures 6 and 7*** of the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document).
085	3.4.8 The MMO does not consider the calculation of total spawning habitat, as this approach can over or underrepresent spawning grounds and is solely based on substrate suitability. Reasons for this are provided: 3.4.8.1 Spawning areas can change over time or become recolonised. 3.4.8.2 Whilst spawning and nursery ground maps are used to provide the most recent and appropriate information to identify spawning areas, they do not fully define/consider/identify: • •All potential areas of spawning, • Any habituation that may occur i.e. identify areas where higher densities of spawning are present,	The limitations in delineating spawning and nursery areas using the mapped boundaries from Coull et al (1998) and Ellis et al (2010[38]; 2012[39]) was discussed in ***section 10.4.2.1.1*** of ***Chapter 10 Fish and Shellfish Ecology*** (APP-058). The spatial extent of the spawning grounds and the duration of spawning periods given in these publications have been used to represent the maximum theoretical extent of the areas and periods within which spawning by the species is considered. Therefore, spawning grounds are likely to be smaller, with shorter spawning periods, or in certain cases no longer be active spawning grounds. As such a very conservative approach to identifying potential impacts on spawning and nursery grounds has been taken.

[38] Ellis, J., Milligan, S., Readdy, L., South, A., Taylor, N. and Brown, M. (2010) MB5301 Mapping spawning and nursery areas of species to be considered in Marine Protected Areas (Marine Conservation Zones). Report No. 1: Final Report on development of derived data layers for 40 mobile species considered to be of conservation importance. Final version. August 2010.
[39] Ellis, J., Milligan, S.P., Readdy, L., Taylor, N. and Brown, M.J. (2012) Spawning and nursery grounds of selected fish species in UK waters. Science Series Technical Report, Cefas Lowestoft, pp. 147:56.

No	Relevant Representation	Applicant's Comments
	• Specific substrate requirements e.g. substrates which are more suitable within wider broadscale sediments • More suitable topography e.g. ridges/edges of sandbanks where sole may spawn or furrows where herring may spawn • Environmental factors that may influence spawning intensity such as temperature, oxygenation, natural disturbance, anthropogenic disturbance etc • Calculations of specific spawning areas are based on peak spawning times i.e. the number of days of a spawning period rather than considering the entire spawning season 3.4.8.3 Consequently, it is not possible to delineate spawning and nursery areas using the mapped boundaries. 3.4.9 The MMO note that, in relation to herring, the calculated habitat approach does not take into account recent IHLS larval density data (the best representation of recent spawning activity) as well as water quality, topography etc. which are also factors in areas where herring spawn. Herring do not display spawning bed site fidelity i.e. they do not return to the exact same location within a spawning ground to spawn. This lack of site fidelity can be seen upon reviewing different years of IHLS data in which variability in the larval density both spatially and temporally can be understood. The MMO would therefore request that further work is carried out into the herring spawning concerns mentioned above.	In addition, as described in ***Appendix 10.2*** (APP-463), data from various sources including IHLS, van Damme et al. (2011)[40], Payne (2010)[41] and from commercial Landings were analysed to provide an indication of the presence of herring within the offshore development area. As previously discussed, the spatial variations in spawning locations has been accounted for and presented using 10 years of data from the IHLS surveys, consolidated by IHLS survey period, as shown in ***Figure 5*** of the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document). Additionally, 10 year IHLS data for the January surveys only has been mapped against noise contours for both the fleeing and stationary models, and are displayed in ***Figures 6 and 7*** of the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document). These figures show that the key area for herring spawning is located to the south in the English Channel. The Applicant also notes that the information provided within the East Anglia TWO and East Anglia ONE North application is for the most part in line with that provided for recent offshore windfarm applications, such as Norfolk Vanguard and Norfolk Boreas.

[40] van Damme, C.J.G., Hoek, R., Beare, D., Bolle, L.J., Bakker, C., van Barneveld, E., Lohman, M., os-Koomen, E., Nijssen, P., Pennock, I. and Tribuhl, S. (2011) Shortlist Master plan Wind Monitoring fish eggs and larvae in the Southern North Sea; Final Report . Report number C098/11
[41] Payne, M.R. (2010) Mind the gaps: a state-space model for analysing the dynamics of North Sea herring spawning components. ICES Journal of Marine Science, 67(9), pp. 1939-1947.

No	Relevant Representation	Applicant's Comments
086	3.4.10 The MMO notes that in Paragraph 128 of Chapter 10 recognises sandeel as benthic spawners, however table 10.18 contradicts this by classifying sandeel as pelagic spawners. The MMO raised this previously and it has not been corrected please could this be updated.	This was a typographic error, the Applicant recognises that sandeel are pelagic species but are site-specific demersal spawners, therefore the area defined by the spawning grounds reflects the distribution of the adults.
087	3.4.10.1 UXO clearance via detonation is listed in Table 1.3 as a potential offshore maintenance activity. The table signposts the reader to the ES Chapter 11 for Marine Mammals, but it is not included or assessed under the maintenance activities in Chapter 10 for Fish.	As described in the Applicant's response to MMO comment 2.1.5, the worst case assumption and classification of UXO detonation during the O&M phase not requiring a marine licence was an error. The Applicant will update the OOMP to reflect that any UXO detonation during the O&M phase will require a marine licence.
088	3.4.11 For the EIA for fish ecology, no impact was greater than minor adverse for the project alone or cumulatively for the proposed EA2 project, therefore no monitoring or surveys are proposed. However, the MMO recommends that pre- and post-construction monitoring of sediments across the EA2 site is undertaken to inform the assessment of cumulative impacts to sandeel arising disturbance to, and loss of, 'preferred' sediments for the following reasons; 3.4.11.1 Three species of sandeel were recorded in the site-specific scientific beam trawl surveys undertaken in the East Anglia wind farms zone: Raitt's sandeel small sandeel, greater sandeel and smooth sandeel. Smooth sandeel, greater sandeel and lesser sandeel have also been recorded in the study area by the IBTS. 3.4.11.2 The trawling method (GOV trawl) used in the IBTS surveys is not specifically designed to target sandeel and therefore does not provide accurate information on sandeel abundance. Nonetheless, the presence of sandeel in high numbers within ICES rectangle 33F2	It is recognised that species of sandeel were recorded in the scientific beam trawl surveys undertaken in the former East Anglia Zone, however as shown in ***Table A10.3*** in ***Appendix 10.2*** (APP-463) these sandeels were recorded within the East Anglia ONE windfarm site and control site. This was used to infer the presence of sandeel within the offshore development area for this project. As described in s***ection 10.2.4.3*** in ***Appendix 10.2***, Particle Size Analysis (PSA) data from benthic surveys undertaken across the former East Anglia Zone were analysed to provide an indication of the suitability of the offshore development area in terms of potential for provision of habitat for sandeel. This is shown in ***Figure 10.2.4*** of ***Appendix 10.2.*** As expected, given the sandy nature of the sediment across the offshore development area, preferred and marginal sandeel habitat was identified, with unsuitable areas identified at discrete locations particularly along the offshore cable corridor. It should be noted, however, that the habitat classification on which this analysis is based (Marine Space 2013)[42] relies

[42] Marine Space (2013). Screening Spatial Interactions between Marine Aggregate Application Areas and Sandeel Habitat. A Method Statement produced for BMAPA.

No	Relevant Representation	Applicant's Comments
	using this gear type does suggest that the area is well suited to sandeel and is actively inhabited by sandeel in reasonably high numbers. 3.4.11.3 They have specific habitat requirements in terms of the substrate in which they live, so they are particularly vulnerable to marine developments which either disturb/remove their habitat or change the composition of the substrate in which they live. The magnitude of effect of such impacts can be further enhanced, should the activities (e.g. construction, dredging etc) be undertaken during the winter hibernation period when sandeel are most vulnerable. 3.4.11.4 There is currently very little monitoring being undertaken to investigate the cumulative impacts to sandeel as a result of the construction and operation of offshore windfarms. This makes it difficult to ascertain whether the installation and presence of windfarms is having any effect on sandeel populations. In addition, a lack of post-construction monitoring makes it difficult for windfarm developers to validate ES predictions concerning impacts to sandeel. 3.4.11.5 The current status quo for EIAs is to assume that because the North Sea is a 'large area', impacts to sandeel resulting from a particular development are unlikely to be significant. The rationale given is that there are other areas of suitable habitat in the wider Southern North Sea area which sandeel can inhabit. However, there are many areas of the wider Southern North Sea area that are not suitable sandeel habitat, e.g. incompatible substrate composition, water depth. There are Large areas of the Southern North Sea are already being utilised by marine developments including OWFs and	on sediment composition rather than evidence of sandeel usage of the area. The presence of suitable sediment does not necessarily imply that sandeels are present in a particular area. Similarly, the presence of suitable sediment does not imply that a given area would ever be colonised by sandeels. In the context of the cumulative assessment on sandeels, with regards to impacts during operation such as loss of habitat, the fact that habitat loss would only occur around relatively small localised areas at each individual offshore wind farm should be taken account of. Studies of fish assemblages in operational wind farms (Stenberg et al., 2011; 2015) have not detected significant changes to sandeel populations. It has been suggested (Stenberg et al., 2015)[43] that direct loss of habitat associated with offshore windfarm infrastructure and indirect effects (i.e. changes to sediment composition) are too low in magnitude to influence the abundance of sand-dwelling species such as sandeels. Considering the above, it is the Applicant's view that further investigation and monitoring of sandeel habitat is not necessary.

[43] Stenberg, C., van Deurs, M., Stottrup, J., Mosegaard, H, Grome, T., Dinesen, G., Christensen, A., Jensen, H, Kaspersen, M., Berg, C.W., Leonhard, S.B., Skov, H., Pedersen, J., Hvidt, C.B. and Kaustrup, M. (2011). Effect of the Hors Rev 1 Offshore Wind Farm on Fish Communities. Follow-up Seven Years after Construction. DTU Aqua Report NO 246-2011

No	Relevant Representation	Applicant's Comments
	aggregate extraction, which further reduces available sandeel habitat. 3.4.11.6 The MMO consider that further investigations are required into the impacts of sandeel habitats and suggests that an approach similar to the aggregates industry be taken on by the East Anglia 2 site to determine the collective and cumulative picture of the total habitats lost a/affected by this development. For the aggregates industry, impacts to, and the continued monitoring of, sandeel habitat affected aggregate extraction sites, is currently informed through Particle Size Analysis (PSA) data collected under the Regional Seabed Monitoring Plan (RSMP) (Cooper et al. 2017) and follows the method described by MarineSpace (2013). Collectively, the monitoring of all aggregate sites in this way can provide an indicative overview of impacts to all affected sites across a particular region.	
089	3.4.11.7 In relation to the above comment, the MMO would recommend that pre- and post-construction sandeel habitat monitoring is carried out using the MarineSpace (2013) approach in order to monitor the suitability of the East Anglia 2 site as sandeel habitat. This monitoring could be undertaken as part of a benthic grab sampling monitoring.	As discussed in response to MMOs Relevant Representation paragraph 3.3.7 a benthic grab campaign is not considered necessary and, as described above the Applicant's view that further investigation and monitoring of sandeel habitat is not necessary.
Shellfish Ecology		
090	3.5.1 The MMO agrees that the shellfish species present in the area and all potential impacts to upon them have been correctly identified. However, the MMO do not consider that all identified potential impacts have been assessed fully. In document 6.1.10 regarding suspended sediment concentrations (SSC) detail has been given to the effects of this impact on Brown crab (*Cancer pagurus*) and European lobster (*Homarus gammarus*) only. In the concluding paragraph on SSC, medium sensitivity has been assigned to shellfish	Impacts of suspended sediment concentration on whelk and King Scallops are assessed in the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document).

No	Relevant Representation	Applicant's Comments
	including whelk however the impact of SSC on whelk has not been assessed or included previously. As whelk are a commercial valuable species present in the proposed project area these should be included. Similarly, King scallops (*Pecten maximus*) have also been identified as present in the proposed area and of commercial importance but have not been assessed for the impacts of SSC. The MMO request further detail is required regarding the impacts of SSC on shellfish species.	
Commercial Fisheries		
091	3.6.1 The cable export route will pass through active fishing grounds, this is likely to cause disruption to the local inshore fleet during cable laying and be contentious due to the number of export cables already passing through local inshore waters.	Noted. As discussed in ***section 13.3.3*** of ***Chapter 13 Commercial Fisheries*** (APP-061) the Applicant is committed to working closely with commercial fisheries stakeholders. The appropriate liaison will be undertaken with all relevant fishing interests to ensure they are fully informed of all construction, maintenance and decommissioning activities. In order to ensure and maintain regular communication, a Commercial Fisheries Working Group (CFWG) has been established to cover liaison in respect to East Anglia ONE, East Anglia THREE, East Anglia TWO and East Anglia ONE North. The CFWG aims to identify and develop co-existence strategies during a project's lifecycle. A Fisheries Liaison and Co-existence Plan (FLCP) will be produced for the Projects, post-consent. It is expected that the CFWG will also be used to discuss any mitigation necessary for the Projects where appropriate. The Applicant has appointed a Fisheries Liaison Officer (FLO) to work with the fishing industry across all East Anglia projects including the Projects. As secured by condition 17 of the generation DML and condition 13 of the transmission DML of the ***draft DCO*** (APP-023), a cable laying plan and proposals for monitoring offshore cables will be produced post
092	3.6.2 The use of concrete mattresses and other methods to cover unburied cables or cable crossing points is also likely to be controversial as this presents a snagging risk to trawling vessels. These mattresses will be in addition to those in place along cable routes for other windfarms within the area.	

No	Relevant Representation	Applicant's Comments
		consent. Additionally, the construction of the Projects will be undertaken against an agreed 'dropped objects procedure' that will require the Applicant to notify the MMO of any dropped objects and agreement over their recovery, where required. Dropped objects will be reported to the MMO using the Dropped Object Procedures Form outlined in the draft DCO The FLCP, discussed above, will also include protocols for the 'snagging' or loss / damage of fishing gear associated with Project infrastructure. Timely and efficient Notices to Mariners (NtMs) and Kingfisher bulletins and other navigational warnings will be issued to the fishing industry prior to all survey and construction works through a project specific marine co-ordination system as secured in conditions 10 (notifications) and 11 (aids to navigation) of the generation DML and conditions 6 (notifications) and 7 (aids to navigation) of the transmission DML of the ***draft DCO***). In addition, appropriate communication with the fishing industry will be undertaken in the event that cables become unburied during the operational phase of the project (i.e. through the FLO and appropriate channels such as the Kingfisher Information Service) as secured in DML conditions 10(12) of Schedule 13, Part 2 and 6(12) of Schedule 14, Part 2 of the ***draft DCO***. In instances when fishing gear may need to be temporarily relocated due to construction activities, appropriate evidence-based mitigation, as specified in FLOWW Guidelines (FLOWW 2014; 2015) will be applied. As far as possible offshore cables will be buried to at least 1m. Where cable protection is required (e.g. at cable crossings or areas of hard ground) their locations will be made available to fishing stakeholders. In line with standard practice in the North Sea oil and gas industry, measures would be undertaken to ensure that where cable protection is

No	Relevant Representation	Applicant's Comments
		required, the protection methods used are compatible with fishing activities where feasible and practical.
093	3.6.3 While the generating assets of the windfarm will be erected well outside the local inshore fishing area, there are some larger trawling vessels active in the proposed construction zone. These larger vessel as note in the DCO documents are highly mobile, as such individual works are unlikely to significantly impact fishing operations. However, Wind farms are often constructed in areas favourable to trawling, and given the number of wind farms in operation, underdevelopment and under construction of the East Anglian coast, the cumulative impact on such vessel may be more significant than it initially appears.	Noted. A cumulative assessment of potential impacts on commercial fisheries interests (including trawling vessels) is provided in ***section 13.7*** of **Chapter 13 Commercial Fisheries** (APP-061).
094	3.6.4 Although the report indicates that the impacts are considered low to medium, it should be noted that may of the vessels impacted as single crewed and reliant on established fishing ground, disruption and restriction to those ground may cause more of an impact than expected.	The Applicant understands the practices of the inshore <10m fleet and that this vessel category represents the majority of active UK vessels in the vicinity of the offshore development area. This is noted in the assessment in ***section 13.6.1.2.3*** of ***Chapter 13 Commercial Fisheries*** (APP-061) which concluded moderate adverse impacts which is significant in EIA terms in respect of the potential impact on individual vessels for which the magnitude of the effect may be medium. The assessment recognised the need for appropriate evidence-based mitigation, as specified in FLOWW Guidelines, where required and this will be achieved via the already established CFWG. The CFWG was established for the former East Anglia Zone and East Anglia ONE and is a forum for the Applicant and local fisherman to discuss the project as more details on project design become available post consent and develop communication, co-existence and co-operation plans. A FLCP, committed to in the ***draft DCO*** (APP-053), will be produced for the Project, post-consent for approval by the MMO. It is expected that the CFWG will also be used to discuss any mitigation

No	Relevant Representation	Applicant's Comments
		necessary for the proposed projects where appropriate, including the agreed existing processes regarding potential compensation.
095	3.6.5 The assessment of fishing activities is largely reliant on MMO data. This can be considered to be relatively reliable for large offshore vessels due to the reporting mechanisms in place. However, for the under 10m inshore fleet, at the time of this response, the requirement for reporting is limited. Due to the business model under which they operate such vessels are not currently required to submit landings data, therefore the fishing effort along the cable corridor is likely to be greater than is indicated by the data available.	The limitations of landings data for the <10m fleet and dependency on on grounds in the offshore development area is recognised by the Applicant. The assessment in ***section 13.6.1.2.3*** of ***Chapter 13 Commercial Fisheries*** concluded moderate adverse impacts in respect of the potential impact on individual vessels for which the magnitude of the effect may be medium. Appropriate evidence-based mitigation will therefore be discussed and agreed post-consent via the CFWG (described above).
096	3.6.6 Along with a Fisheries Liaison Officer (FLO), the MMO advise that it would be appropriate to additionally appoint an independent Fishing Industry Representative (FIR).	Due to the variety of ports the local fishing fleet originate from, the CFWG acted as the FIR for East Anglia ONE. The CFWG includes representatives from Orford, Aldeburgh, Harwich, Felixstowe, Lowestoft and Southwold and is independantly chaired by the Eastern IFCA. It is the Applicant's intention to continue using the CFWG as the key interface for communication with the local fishing fleet.
Underwater Noise		
097	3.7.1 In our Section 42 response, the MMO raised that the underwater noise modelling should consider a stationary animal receptor for fish. It is recognised that modelling based on a stationary receptor has been included in a separate appendix (Appendix 10.3) to the main underwater noise assessment, and stationary receptor results are also provided in the main noise assessment. Thus, the MMO are content that this issue has been addressed in the ES in some respects. However, we still have comments on noise modelling in relation to herring spawning grounds that we advise are addressed.	Noted.

No	Relevant Representation	Applicant's Comments
098	3.7.2 During the PEIR review the MMO commented that for the cumulative sound exposure level (SEL) assessment, the cumulative exposure over a 24-hour period should be assessed, as per the National Marine Fisheries Service (NMFS) (2018) guidance. The current assessment only considers the installation of a single monopile or pin pile in a 24-hour period (as per Tables 4-2 and 4-3 of the Underwater Noise Assessment). It is reasonable to expect that more than one pile will be installed per 24 hours, which would not be accounted for under the current (cumulative exposure) assessment. The applicant has confirmed (in Appendix 11.1 Marine Mammal Consultation Responses) that there is the potential for more than one pile to be installed in a 24-hour period. Therefore, the MMO advise that this should be reflected in the cumulative exposure assessment.	Modelling has currently been undertaken for a single pile to be carried out in 24 hours. The Applicant has committed to no concurrent piling within the Project or between East Anglia ONE North and East Anglia TWO. The assessment was undertaken on the basis of no exceedance of '20% of the relevant area of the site [the Southern North Sea SAC (SNS SAC)] at any one time' based upon wording in advice from Natural England which predated the publication of the updated Conservation Objectives for the SNS SAC in March 2019. In the updated Conservation Objectives, the exceedance is based upon "20% of the relevant area of the site in any given day". Using this approach, as is now correct, with current methodology for assessing noise impacts (i.e. using a 26km effective deterrent range (EDR)), two piling events in a single day would exceed the 20% daily limit for the winter area. Therefore, although the modelling approach suggested by MMO was not undertaken, the results of the spatial assessment using the EDR show that for the SNS SAC winter area more than one piling event per day would not be permitted. For the summer area it is likely (with current methodology for assessing noise impacts) that multiple sequential piling events per day are possible within the limits of the Conservation Objective. Given the above and the fact that further assessments of noise will be undertaken for the SIP (when foundation type, construction methodologies and the construction programme are finalised), the Applicant does not consider there to be a requirement to undertake further noise modelling at this time.
099	3.7.3 Additionally, the MMO previously recommended that the underwater noise assessment should provide a plot showing the predicted received sound levels with range, for the single strike SEL (SELss). This would facilitate and streamline the process of comparing predictions with any future construction noise monitoring	The maximum hammer energies for both pin piles (2,400kJ) and monopiles (4,000kJ) have been used to plot ***Figure 5-10*** in ***Appendix 11.4*** (APP-468).

No	Relevant Representation	Applicant's Comments
	data collected for compliance purposes. We welcome that this has now been provided – Figure 5-10 shows the level against range plots showing the unweighted peak sound pressure level (SPLpeak) and SELss noise levels from the worst-case locations for monopiles and pin piles at EA2 for a deep transect (190°). However, the MMO recommend that clarification is provided as to what hammer energy has been used here, or what is assumed for the source.	
100	3.7.4 Following on from this, the MMO advises that the SPL_{peak} is the most appropriate metric to assess potential impacts (as per Table 6-3 in Appendix 11.4), rather than the single strike sound exposure level. This is because the risk of auditory damage depends on how high peak pressures get (and how rapidly they rise), which – out of the standard metrics available – is best reflected by the peak SPL.	At the time when the condition is discharged, a review of latest scientific information will be undertaken, and evidence supplied for metrics used in the assessment.
101	3.7.5 The largest SPLpeak impact ranges for permanent threshold shift (PTS) (as per the National Oceanic and Atmospheric Administration (NOAA) (2018) guidance for impulsive sources) are for harbour porpoise, ranging from 7.8 km to 11 km depending on the charge weight. TTS impact ranges for harbour porpoise are 13 km to 18 km (Table 6-3). For fish, impact ranges are less than 1 km (Table 6-10).	Noted - 11.1km impact range was used for harbour porpoise, the impact ranges for other marine mammals are as stated in the ES.
102	3.7.6 The MMO advises that the most direct and comprehensive way to mitigate the risk of acoustic impact on marine species is to reduce the amount of noise pollution emitted at source. For pile driving (and clearance of UXOs), there are now noise reduction technologies available, such as big bubble curtains and acoustic barriers that are integrated into the piling rig (e.g. IHC Noise Mitigation System), which are being routinely deployed in German waters. Such source mitigation should be considered as a primary means of reducing the potential acoustic impact of pile driving operations.	The In-Principle Site Integrity Plan for the Southern North Sea Special Area of Conservation (APP-594) includes provision for these if needed.

No	Relevant Representation	Applicant's Comments
103	3.7.7 For our comments on underwater noise in relation to the draft Marine Mammal Mitigation Protocol see section 2.4 above.	Noted.
104	3.7.7.2 The MMO recognises that the applicant has provided the stationary mammal noise modelling as requested (Appendix 10.3) however the MMO still requests that this be done for fish modelling also (see section 3.4 for further details).	A stationary modelling assessment has been conducted for fish receptors in ***Appendix 10.3*** (APP-464).
105	3.7.7.3 Para 224 in Chapter 10 Fish and Shellfish Ecology states the following: "Whilst there are herring spawning grounds inshore to the northwest and offshore to the southeast, neither extend over the East Anglia Two windfarm site (Figure 10.14). The closest spawning ground is the Downs Stock located 4.4 km away from the closest point of the East Anglia Two windfarm site (using Coull et al. 1998), Figure 10.39 shows that the impact ranges associated with the potential for TTS onset overlap with the Downs spawning ground to the southeast, the area of overlap equates to 7.49% of the total area of spawning ground. Whilst the Coull et al. (1998) data suggests that East Anglia TWO windfarm site is in close proximity to the Downs Stock, data from the IHLS shows that the important area for herring spawning is located to the south in the English Channel. This is shown in Figure 10.45 which the presents 10 year IHLS data against noise contours for pin piles". 3.7.7.4 However, the noise modelling based on a stationary receptor (see Figure 10.3.6 of Appendix 10.3), shows more of an overlap with the Downs spawning ground. However, this figure does not show the IHLS data. The MMO recommend reviewing and amending this.	The worst case scenario based on monopiles and a stationary receptor was presented in the ES in ***Figures 10.3.1 to 10.3.12*** of ***Appendix 10.3*** (APP-464)***. Figure 10.3.12*** has been updated with IHLS data from all three larvae surveys carried out in specific periods and areas, as discussed above, and is shown in ***Figure 5*** of the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document). Additionally, 10 year IHLS data for the January surveys only has been mapped against noise contours for both the fleeing and stationary models, and are displayed in ***Figures 6 and 7*** of the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document).
106	3.7.7.5 The MMO's Section 42 response recommended that the received levels of the single strike sound exposure level at the spawning grounds should be modelled and presented in addition to	This is contrary to the MMO advice presented in paragraph 3.7.4 that peak Sound Pressure Level (SPL_{peak}) is the most appropriate metric to

No	Relevant Representation	Applicant's Comments
	enable a more thorough assessment of the risk of potential impact. This has not been addressed and the MMO again recommends that this is addressed.	assess potential impacts (as per ***Table 6-3*** in ***Appendix 11.4*** (APP-468)), rather than the single strike sound exposure level (SEL). As discussed during the MMO Statement of Common Ground Meeting on 19th March 2020, guidelines for mortality and recovery for pile driving for fish are given in terms of the dual criteria for single strike peak sound pressure level (SPL_{peak}) and cumulative SEL (SEL_{cum}). Popper *et al*. (2014) only gives criteria for fish using unweighted SPL_{peak} and SEL_{cum} metrics, as these are the two primary factors in causing injury to receptors. Halvorsen et al. (2012) demonstrated that an appropriate metric for guidelines may be a combination of the single strike SEL (SEL_{ss}) and the number of strikes that are used to yield the SEL_{cum} value, with the understanding that at the same SEL_{cum} value, higher SEL_{ss} and fewer strikes can result in the same onset of effects as a lower SEL_{ss} and more strikes. The guidance also gives specific criteria (as both SPL_{peak} and SEL_{cum} values) for a variety of noise sources. As with the marine mammal criteria, SPL_{peak} values have been considered alongside the SEL_{cum} criteria, as discussed in ***section 2.2.2.2*** of ***Appendix 11.4.*** ***Table 10.22 in Chapter 10 Fish and Shellfish Ecology*** (APP-058) displays the potential underwater noise impact ranges, the SPL_{peak} ranges with the potential for Mortality and potential mortal injury and recoverable injury are displayed for each category of fish and shellfish receptors. As discussed with the MMO on 19th March 2020 these SPL_{peak} ranges (for both fleeing and stationary models) have now been mapped against 10 years of IHLS data for the January surveys only to display potential impact on herring spawning grounds as displayed in ***Figures 8 and 9*** of the Fish and Shellfish Ecology Clarification Note (***Appendix 3*** of this document).

4.13 Maritime and Coastguard Agency (RR-053)

Table 30 Applicant's Comments on Maritime and Coastguard Agency's Relevant Representation

No	Relevant Representation	Applicant's Comments
001	The Maritime and Coastguard Agency's (MCA) remit for offshore renewable energy development is to ensure that the safety of navigation is preserved, and the UK's search and rescue capability is maintained, whilst progress is made towards government targets for renewable energy.	Noted.
002	The MCA would appreciate the opportunity to consider the project in line with our published guidance as per below, and to ensure that the Development Consent Order Deemed Marine Licence includes MCA's navigation safety conditions for all offshore renewable developments.	Noted. The Applicant has submitted a draft Statement of Common Ground with the MCA which includes agreed DCO / DML conditions on navigation safety.
003	The MCA will seek to ensure the following guidance documents are addressed; 1) Marine Guidance Note (MGN) [543] Safety of Navigation: Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response and its annexes; 2) Marine Guidance Note (MGN) [372] Safety of Navigation; Guidance to Mariners operating in the vicinity of UK OREIs; and 3) Methodology for Assessing the Marine Navigational Safety and Emergency Response Risks of Offshore Renewable Energy Installations.	Noted. The Applicant and the MCA are in agreement that the assessments within the application materials are in accordance with the relevant guidance notes. This is reflected in the draft Statement of Common Ground which has been submitted by the Applicant to the Examining Authority on 11th June 2020 (document reference ExA.SoCG7.D0.V1).

4.14 Ministry of Defence (RR-054)

Table 31 Applicant's Comments on Ministry of Defence's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	In relation to the onshore element of the proposed development, the route identified for the installation of the cable and the associated improvements to national grid infrastructure will not occupy MOD statutory safeguarding zones or be in proximity to MOD estate. Therefore, it is not anticipated that the onshore development will adversely affect MOD interests.	Noted.
002	The MOD has assessed the location and layout of the offshore element of the development scheme proposed. The scheme outlined will not physically impact upon MOD offshore Danger and Exercise Areas. or adversely affect defence maritime navigational interests. However, the turbines and some of the tall ancillary offshore structures will affect military low flying training activities that may be conducted in this area. As such it will be necessary for these structures to be fitted with appropriate aviation warning lighting to maintain the safety of military air traffic.	The Applicant has committed to relevant structures being fitted with appropriate aviation warning lighting to maintain the safety of air traffic, secured through Requirement 31 of the ***Draft Development Consent Order*** (APP-023), which is acknowledged by the Ministry of Defence (MOD) in their comments below.
003	In relation to the operation of defence radars, taking account of the location and scale of wind turbines that may be utilised, it has been determined that the proposed wind farm will be in line of sight and detectable to the air defence radar located at Remote Radar Head (RRH) Trimingham. Wind turbines have been shown to have detrimental effects on the operation of air defence radar. These include the desensitisation of the radar in the vicinity of wind turbines, and the creation of "false" aircraft returns. The probability of the radar detecting aircraft flying over or in the locality of the turbines would be reduced, hence turbine proliferation within a specific locality can result in unacceptable	The statement by the MOD that Condition 13 of the generation DML and Requirement 31 of the ***Draft DCO*** (APP-023) effectively account for their safeguarding requirements is noted.

No.	Relevant Representation	Applicant's Comments
	degradation of the radar's operational integrity. This would reduce the RAF's ability to detect and manage aircraft in United Kingdom sovereign airspace, thereby preventing it from effectively performing its primary function of Air Defence of the United Kingdom. Our assessments have determined that the proposed wind farm will cause unacceptable and unmanageable interference to the effective operation of the air defence radar at RRH Trimingham. This issue has been recognised by the applicant, who has undertaken to assess the impacts the wind farm will have upon the air defence radar. However, the full performance attributes of this radar type are not available in the public domain. Therefore, whilst the radar modelling undertaken on behalf of the applicant serves to provide an approximate indication of the impacts the wind farm is likely to have, it is not able to accurately account for the extent to which the air defence radar will be able to detect the wind turbines. The applicant has identified a technical mitigation concept to address the adverse impacts of the development upon the air defence radar. The MOD considers this to be suitable to enable a Requirement for the provision of a radar technical mitigation to be included in a Development Consent Order. The applicant has included three Requirements (13, 31 and 34) in the draft Development Consent Order (dDCO) they have submitted in support of this application to address the safeguarding requirements of the MOD. Requirements 13 and 31 respectively relate to the need for the applicant to provide details of the locations and dimensions of the development for aviation charting purposes and to attach aviation warning lighting to relevant offshore structures necessary to maintain military aircraft safety. These effectively account for these	

No.	Relevant Representation	Applicant's Comments
	safeguarding requirements, as such, the MOD is content with the wording of these two draft Requirements as documented in Annex A.	
004	The applicant has also included Requirement 34 to address the impacts the development will have upon the air defence radar at RRH Trimingham. The applicant's proposed Requirement defines maximum heights that wind turbines deployed in specific areas of the offshore development envelope (defined in an attached plan) could be built up to without requiring a technical mitigation. As identified above, the applicant's modelling of the radar detectability of turbines that may feature in this scheme is not suitable for precisely defining the maximum heights turbines could be built up to within specific areas of the development envelope without causing unacceptable and unmanageable interference to the air defence radar at RRH Trimingham. The MOD does not consider that such precise development limitations can be prescribed in this way whilst ensuring the effective operation of the air defence radar. Therefore, the MOD cannot accept the wording of Requirement 34 as currently included in the dDCO. An alternative version of this Requirement is attached at Annex B which uses wording that the MOD considers suitable for the purpose of addressing air defence safeguarding requirements. The MOD respectively submits this for the consideration of the Examining Authority.	The points raised by the MOD on Requirement 34 of the ***Draft DCO*** (APP-023) and the alternative DCO requirement they have identified in Annex B are noted and are under consideration by the Applicant.
005	I can therefore confirm that, the MOD maintains no safeguarding objection to this application subject to the inclusion of these three requirements, as detailed in Annexes A and B below in any Development Consent Order that may be granted for this scheme.	The statement on no safeguarding objection by the MOD subject to the inclusion of DCO requirements and conditions in Annex A and B of their Relevant Representation is noted. As stated above, the DCO conditions and requirements in Annex A match those set out within Condition 13 of the generation DML and Requirement 31 of the ***Draft DCO*** (APP-023). However, the Interested Party has provided an amended requirement in Annex B in

No.	Relevant Representation	Applicant's Comments
		respect of Requirement 34 of the ***Draft DCO*** (APP-023), which is under consideration by the Applicant.

4.15 National Air Traffic Service (RR-058)

Table 32 Applicant's Comments on National Air Traffic Service's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	NATS has assessed the proposal and anticipates an impact on its infrastructure; specifically that the turbines will be detected by NATS's Cromer radar. It is anticipated that the radar detection of the turbines will lead to substantial "clutter" appearing on Air Traffic Controllers' displays. Accordingly, the anticipated impact is deemed to be unacceptable to NATS's operations and at this time, NATS objects to the application. Notwithstanding the objection however, NATS has been and remains positively engaged with SPR (UK) around the need for and identification of an acceptable mitigation scheme. While a solution has not been identified at this time, through its work with its stakeholders and the Applicant, NATS believes that a solution will be forthcoming in order to address the impact of the proposal and thus mitigate the effect of the turbines. NATS will continue to work on the identification of a suitable mitigation scheme, and once a tangible solution has been identified and agreed with the Applicant, it will submit a further representation.	Noted. The Applicant is committed to ongoing engagement with National Air Traffic Service (NATS) over the identification of a suitable mitigation scheme. ***Requirement 35 of the Draft Development Consent Order*** (APP-023) ensures that no wind turbine generators are constructed until appropriate measures to mitigate any adverse effects arising from the operation of the turbines on the primary surveillance radar at Cromer and NATS' air surveillance and control operations are available and that arrangements have been put in place with NATS to ensure that such mitigation is implemented.

4.16 National Grid Electricity Transmission (RR-056)

Table 33 Applicant's Comments on National Grid Electricity Transmission's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	NGET wishes to make a Relevant Representation to the above DCOs in relation to the matters set out below. Support for the Proposed Development Firstly, NGET would like to confirm that it does not object to the proposed development, indeed, the DCOs seek consent to deliver infrastructure that will be owned and operated by NGET. That infrastructure includes a new NGET substation and the DCOs include flexibility for either a AIS or a GIS substation to be implemented should the DCOs be approved. NGET supports this flexibility as, the ability for NGET to choose which type of substation to implement will to assist NGET in complying with its statutory duty under Section 9(2) of the Electricity Act 1989 to "develop and maintain an efficient, co-ordinated and economical system of electricity transmission".	Noted.
002	Duty to Protect Existing Assets In addition, as a responsible statutory undertaker, NGET's primary concern is to meet its statutory obligations and ensure that any development does not impact in any adverse way upon those statutory obligations. As such NGET has a duty to protect its position in relation to infrastructure and land which is within or in close proximity to the Order Limits of the proposed development. NGET's rights to retain its apparatus in situ and rights of access to inspect, maintain, renew and repair such apparatus located within or in close proximity to the Order Limits should be maintained at all times and access to inspect and maintain such apparatus must not be restricted.	The Applicant has fully engaged with National Grid Electricity Transmission (NGET) and continues to liaise with NGET with a view to reaching agreement on protective provisions for inclusion in the Development Consent Order (DCO) that will protect NGET's interests.

No.	Relevant Representation	Applicant's Comments
003	NGET can confirm that it is liaising with the applicant in relation to the protective provisions included within the DCOs to ensure that its interests are adequately protected and to ensure compliance with relevant safety standards. NGET will continue to liaise with the applicant in this regard with a view to concluding matters as soon as possible during the DCO Examinations.	The Applicant continues to liaise with NGET with a view to reaching agreement on protective provisions for inclusion in the DCO that will protect NGET's interests.
004	SuDs Ponds/Basins As per Table 20.3 of the East Anglia TWO Environmental Statement (document reference 6.1.20), and East Anglia ONE North Environmental Statement (document reference 6.1.20), we note that the applicant retains the option to install further attenuation measures along the existing surface water flow route during the detailed design phase. The Applicant has committed to providing an additional 'surface water management SuDS basin' (currently identified as concept within Chapter 29 Landscape and Visual Impact Assessment, and in the OLEMS (document reference 8.7) to reduce water in-flow rates to the substation area and potentially reduce flood risk for the village of Friston, in addition to the Surface Water Drainage Strategy currently proposed.	Noted.
005	Confirmation of the size, volume and location of this additional 'surface water management SuDS basin' will follow establishment of an appropriate catchment hydraulic model and the detailed design of the onshore substation and National Grid substation. As a result, the additional attenuation and wider catchment benefit associated with this proposed additional 'surface water management SuDS basin' is not therefore incorporated within this chapter and is therefore a worst-case scenario. NGET will contribute to the design of these further attenuation measures which must ensure that the operation of the proposed NGET infrastructure being consented is not compromised.	Noted, the Applicant welcomes further discussions and working with NGET on this going forward.

No.	Relevant Representation	Applicant's Comments
006	NGET reserves the right to make further representations as part of the Examination process but in the meantime will continue to liaise with the applicant with a view to reaching agreement on all matters raised.	Noted.

4.17 National Grid Ventures (RR-057)

Table 34 Applicant's Comments on National Grid Ventures' Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	NGV is a ringfenced division of National Grid plc, responsible for both developing and operating businesses in our UK and US territories. NGV is proposing to develop two high voltage direct current (HVDC) electricity Interconnector projects between Suffolk and Europe, the Nautilus and EuroLink Projects.	Noted
002	Both the proposed Nautilus and EuroLink Interconnector Projects have grid connection agreements in place with the National Grid Electricity System Operator (ESO) to connect these projects at a new 400kV electricity substation located close to the existing Sizewell 400kV line, provisionally referred to as "Leiston 400kV." NGV's proposed Nautilus and EuroLink Interconnector Projects share the same connection offer location as SPR's East Anglia ONE North and East Anglia TWO projects. Each Interconnector project will involve the construction of an electricity converter station in each country and the installation of offshore and onshore underground (HVDC) cables between each converter station and underground high voltage alternating current (HVAC) cables between the converter station and electricity substation in each country.	Noted
003	The Nautilus Interconnector is a proposed 1400 MW HVDC electricity link between the British and Belgium transmission systems connecting between a substation in Suffolk and a substation in Belgium. On the 29th April 2019 NGV received a Direction by the Secretary of State under Section 35 of the Planning Act 2008, confirming that the Nautilus Interconnector project would be treated as National Significant Infrastructure Project under the Development Consent Order regime. The	Noted

No.	Relevant Representation	Applicant's Comments
	EuroLink Project is a proposed 14000 MW HVDC electricity link between the British and Dutch transmission systems connecting between a substation in Suffolk and a substation in The Netherlands.	
004	NGV's INTEREST IN SPR'S DCO APPLICATIONS FOR EAST ANGLIA ONE NORTH AND EAST ANGLIA TWO NGV are working to identify potential sites for the location of the required converter station, landfall and associated cable routes for each project. Further technical assessment, survey work and refinement is being undertaken before NGV are ready to present options for non-statutory public consultation. Without prejudice, NGV may wish to participate during the Examination in relation to the interests we set out above. NGV reserve the right to make further comments through the Examination process, including but not limited to the prospect of safeguarding unfettered and timely access to the proposed new NGET substation being promoted in line with the respective connection agreements from the ESO. NGV welcomes engagement with SPR in relation to our common interests.	***Chapter 5 Environmental Impact Assessment Methodology*** (APP-053) recognises that there is the potential for future proposed National Grid Ventures projects in the local area albeit that at this stage, in accordance with The Planning Inspectorate Advice Note 17, there is insufficient information within the public domain on the National Grid Ventures projects for these to be considered within the cumulative impact assessment presented in the Environmental Statement. The Applicant will continue to engage with National Grid Ventures in relation to the development of a Statement of Common Ground with National Grid Ventures.

4.18 Natural England (RR-059)

9. This section provides the Applicant's responses to the Natural England (NE) Relevant Representation. As requested by NE, the receptor topic tables provided replicate those in Appendices A to F of the NE Relevant Representation.

10. The Applicant has appended three appendices alongside these Relevant Representation responses which are of relevance to NE. Where a particular appendix acts as a direct response to or is associated with a particular aspect of the Relevant Representations made by NE, this has been indicated in the tables below. The appendices of relevance to the NE are as follows:

- ***Appendix 4 Offshore Ornithology Precaution Note***
- ***Appendix 5 Outer Thames Estuary Cabling Clarification Note;***
- ***Appendix 7 Offshore Windfarm Visibility and Visual Impact Threshold Distances (2012) Journal Article;***
- ***Appendix 8 JNCC (2020) Guidance for Assessing the Significance of Noise Disturbance Against Conservation Objectives of Harbour Porpoise SACs***

11. It should be noted that a number of issues remain under consideration (as described in the relevant responses) and therefore at this stage the Applicant has not provided a full response to these. However, workstreams have commenced to better understand how the Applicant might address them.

4.18.1 NE Key Topics of Concern

4.18.1.1 Offshore Ornithology

12. As agreed with NE and the Royal Society for the Protection of Birds (RSPB) at SoCG meetings on the 19th and 20th of February respectively, the Applicant will defer responses to cumulative impact assessment (CIA) comments until a final Secretary of State decision on the Hornsea Project 3 and Norfolk Vanguard projects is made on the 1st of July 2020. This will prevent the cumulative and in-combination assessments being revised, interpreted by the Applicant and then reviewed by stakeholders, more times than is necessary.

Table 35 Applicant's Comments on Natural England's Relevant Representation (Offshore Ornithology)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
1. Red-throated diver displacement impacts on Outer Thames Estuary SPA (OTE SPA) **Document used: 5.3 EA2 Information to Support the Appropriate Assessment Report**			
1	We note and welcome that for EA2 the boundary has been amended since the Preliminary Environmental Information Report (PEIR) consultation and is now more than 8km from the SPA boundary. Although we acknowledge that this boundary change was for seascape reasons, it has also had the effect of greatly reducing impacts on the SPA. However based on studies conducted at other windfarms, the extent of displacement effects is likely to exceed 8km. Therefore the EA2 array will through displacement effects result in a long-lasting reduction in the availability of diver habitat in part of the SPA and a change of the distribution of divers within the SPA, and result in an adverse effect on integrity (AEOI) from the project alone. **Natural England's advice is that to avoid an AEOI the boundary of the development should be amended so no part of the array is within 10 km of the boundary of the SPA.** The high level conservation objectives and supplementary advice for the OTE SPA can be found in the conservation advice package for the site, which is here. The conservation objectives for the OTE SPA are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:		The Applicant is undertaking a review of available evidence on this matter and will continue engagement with NE in order to agree a way forward.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	• the extent and distribution of the habitats of the qualifying features • the structure and function of the habitats of the qualifying features • the supporting processes on which the habitats of the qualifying features rely • the populations of each of the qualifying features • the distribution of qualifying features within the site The supplementary advice on the site's conservation objectives describes the range of ecological attributes that are most likely to contribute to a site's overall integrity. Natural England advises that the following attributes within the supplementary advice should be considered as key when determining whether the proposed development will impact upon the site's ecological integrity: • Maintain the extent, distribution and availability of suitable habitat (either within or outside the site boundary) which supports the feature for all necessary stages of the non-breeding/wintering period (moulting, roosting, loafing, feeding) • Reduce the frequency, duration and / or intensity of disturbance affecting roosting, foraging, feeding, moulting and/or loafing birds so that they are not significantly disturbed Natural England recommends that the Applicant reviews the targets and supporting notes for th e above attributes in the supplementary advice. The target sets out the desired state of the attribute and the supporting notes provide detailed evidence of displacement impacts on red-throated diver, through changes in		

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	habitat distribution and disturbance caused by offshore wind farms. We acknowledge that there is no overlap between the 4km buffer and OTE SPA. For baseline characterisation surveys, Natural England advises that the whole of the area within which a planned array may be built plus at least a 4km buffer around those areas is covered by surveys. Buffers serve a number of purposes including assessing areas contiguous to the proposed development that may also be within its zone of influence. There is now evidence suggesting that 4km is likely be an underestimate of the true extent of the displacement, though assuming a magnitude of 100% out to 4km is likely to be an over-estimate. Therefore, when considering impacts on regional or biogeographic populations at the EIA scale, the use of the two components of our current advice (a conservative estimate of extent and a precautionary estimate of magnitude within that extent) in combination, is considered to provide an appropriate estimate for EIA assessment, based on our current understanding of the evidence base. There is a strong and growing body of evidence that red-throated divers are displaced from areas of sea within OWFs and from the waters in their vicinity. There is no evidence to date of habituation. Although the distance around OWFs within which changes in the abundance of divers have been detected appears to vary between developments, in many studies the displacement effect can be detected well beyond the 4km distance which is typically used to inform baseline characterisation, including 8km (Webb and others 2017), 10km (Heinanan and others 2016), 13km (Petersen and		

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	others 2014). Mendel and others (2019) reports displacement up to 20 km from OWFs, with significant changes in densities at a distance of 16.5 km and the greatest changes in abundance within 10 km. Whilst we acknowledge that the level of displacement will not be 100% outside of the array itself and will likely show a gradient of diminishing effect with increasing distance from it, this body of evidence clearly demonstrates that displacement does occur beyond 4km (the extent of the buffer assumed in the SNCB displacement advice published in 2017). Therefore, in the context of SPA impact assessment (as opposed to EIA scale assessment), Natural England's current advice is that displacement effects are likely to occur up to 10km from the development and consequently the location of the array will result in a permanent or long term change in distribution of divers within the SPA as a result of the proposal. The Applicant acknowledges that, without modification, the project is likely to change the local distribution of red - throated divers in the part of the SPA in the vicinity of the proposed development. A change in distribution of divers on a continuing basis would not be consistent with fulfilling the conservation objectives for the OTE SPA. As the extent of available supporting habitat within the SPA will not be maintained as a result of the project alone, an AEOI cannot be ruled out. As a result, Natural England's advice is that in order to avoid an AEOI on the OTE SPA, the boundary of EA1N should be amended to ensure an adequate distance between the array and the SPA, so as to minimise or avoid the re-distribution of divers within the SPA due to displacement.		

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	Of relevance to this advice, we note that the approach adopted by The Crown Estate when refining the boundary of the Round 4 Wash leasing region was to ensure no new proposed windfarms were within 10km of the Greater Wash SPA, based on a report from MacArthur Green (Furness and others 2019). The Report states "Since offshore wind farms can displace red-throated divers up to distances that in the extreme cases exceed 10km from the turbine, it may be prudent to trim the inshore boundary of Regions 3 and 4 so that these are a minimum of 10km from the outer edge of Greater Wash SPA." The 10km distance from the SPA is set as a minimum value by MacArthur Green on the basis that several studies that it cites show values that exceed 10km. This conclusion is in line with a recent study by Diershcke and others (2016) which highlights strong evidence for displacement beyond 10km. Natural England advises that a similar approach to the one taken by The Crown Estate in respect of the Wash Strategic Area for Round 4 be applied to EA1N and EA2. In other words, to rule out the risk of displacement impacts on red - throated diver in the OTE SPA, the boundary of the array should be set an appropriate distance from the SPA (i.e. a minimum of 10km).		
2	Natural England notes that the level of vessel traffic associated with site maintenance has been quantified but consideration of the impact of this element has not been further considered. The operation of the site will necessitate an increase in the number of vessel journeys through the SPA, involving both boats and helicopters. As both have the potential to be disturbing to red-		The operation and maintenance port has not been confirmed at this stage. However, it is clear from consideration of the existing volume of shipping traffic through the region (***Chapter 14 Shipping and Navigation***, ***Appendix 14.2*** (APP-475) and ***Figures 14.3*** (APP-237) and ***14.4*** (APP-237)) which includes

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	throated diver the impacts and these need to be considered and where appropriate mitigated.		the Outer Thames Estuary SPA, that the addition of vessels transiting to and from the port and the windfarm (less than two vessel round trips per day) will have a negligible effect on the levels of shipping disturbance over and above the average of 71 vessel movements per day recorded within the shipping and navigation study area. NE have indicated for this Project and previous projects that, notwithstanding the low additional volumes of vessel traffic, they consider there is still the potential for an adverse effect due to operation and maintenance vessel movements. However, NE have also advised that implementation of best practice guidance (as proposed by NE) on vessel operation whilst transiting the Outer Thames Estuary SPA during sensitive periods of the year (i.e. the red-throated diver nonbreeding season, or key parts thereof) will remove the likelihood of an adverse effect on the integrity of the Outer Thames Estuary SPA red-throated diver population. A best-practice protocol for minimising disturbance to red-throated divers during construction and operation will be adopted and will be provided as part of the project environmental management plan to be approved by the MMO and secured under condition 17 of the generation DML and condition 13 of the transmission DML.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
			Once further information is available about the port(s) that will be used for construction, operations and maintenance, then appropriate vessel traffic management measures including, where relevant, some or all of the below best practice examples can be formulated in agreement with the MMO and NE: • Restricting vessel movements to existing navigation routes (where the densities of divers are typically relatively low); • Where it is necessary to go outside of established navigational routes, selecting routes that avoid known aggregations of birds; • Maintaining direct transit routes (to minimise transit distances through areas used by divers); • Avoidance of over-revving of engines (to minimise noise disturbance); and, • Briefing of vessel crew on the purpose and implications of these vessel management practices (through, for example, tool-box talks). Whilst the operational impact was not assessed, it can be considered in relation to the assessment undertaken for cable laying. ***Section 4.3.1.2.2*** of the ***Information to Support Appropriate Assessment Report*** (APP-043)) assesses the displacement during construction from two cable laying vessels operating simultaneously. For the purposes of the assessment it is assumed that these vessels are effectively stationary and therefore cause a constant displacement effect which (using NE's

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
			precautionary 100% displacement and 10% mortality rates) leads to annual mortality of up to 9.5 individuals. This results in an increase in background mortality by a maximum of 0.21 to 0.72% which would not result in an AEoI (see ***section 4.3.1.2.2*** of the ***Information to Support Appropriate Assessment Report*** (APP-043)). Also, note the Applicant's response to Point 5 of Offshore Ornithology below detailing additional precaution regarding the duration of cable laying activity. NE is in agreement that the assessed cable laying effects do not represent an AEoI. Given that displacement impacts from cable laying vessel activity within the SPA would be of a higher magnitude than maintenance vessel impacts (as they are assessed as effectively stationary vessels) the Applicant considers that maintenance vessel trips would not result in an AEoI. If used, helicopters are a potential source of disturbance to red throated diver in the Outer Thames Estuary SPA. The minimum safe altitude for helicopters operating offshore is 1,000 feet above the highest known obstacle (i.e. wind turbine blade tips) within 5nm. It is considered that at these altitudes that any disturbance caused by the visual presence or noise of helicopters will be minimal and will not result in significant disturbance of red-throated diver.

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3	Natural England agrees that assuming a 100% displacement in a 2km buffer around the cable laying vessel is a reasonable approach. Whilst the level of displacement affecting up to 3.5% of the OTE SPA area would be significant, we do acknowledge that the displacement is short-term. We also note however that given the time this will take (identified in paragraph 213 as being 110 days) there is the potential to carry out this activity during the part of the year when red-throated divers are not present and so would not be exposed to displacement risks associated with this activity.		***Section 4.3.1.2.2*** of the ***Information to Support Appropriate Assessment Report*** (APP-043)) assesses the displacement during construction from two cable laying vessels operating simultaneously. For the purposes of the assessment it is assumed that these vessels are effectively stationary and therefore cause a constant displacement effect which (using NE's precautionary 100% displacement and 10% mortality rates) leads to annual mortality of up to 9.5 individuals. This results in an increase in background mortality by a maximum of 0.21 to 0.72% which would not result in an AEoI (see ***section 4.3.1.2.2*** of the ***Information to Support Appropriate Assessment Report*** (APP-043)). Also, note the Applicant's response to Point 5 of Offshore Ornithology below detailing additional precaution regarding the duration of cable laying activity. NE is in agreement that cable laying effects do not represent an AEoI for the project alone and therefore the Applicant considers that a seasonal restriction on cable laying is not required. Additionally, whilst the duration of export cable installation programme is relatively short, it does comprise a number of independent activities including; any requirements for sand wave levelling; pre-lay grapnel run, near-shore works associated with the HDD punch out location and placement of mattresses / cable protection over existing cables at crossing

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
			locations. Delays to any of the activities, for example, due to inclement weather, could result in cable installation not being completed within the summer period and works having to be stood down until the following summer. This would present a significant risk to completing the construction programme on time and meeting Contract for Difference (CfD) contractual milestones for delivery of first power.
4	Natural England notes that no consideration has been given to the assessment of displacement from the array itself. Perhaps this is because the Applicant has only considered that potential impacts extend to 4km only. Without modification the project could potentially change the local distribution of red-throated diver in this section of the SPA. This would not be consistent with fulfilling the Conservation Objectives for the OTE SPA, and recent studies have revealed that displacement extends to at least 10km. When using a 10km buffer around the array the overlap with the SPA is 4.4 km2 , which although is a small proportion of the area of sea within the SPA, it needs to be considered as part of the in-combination effect together with other plans and projects, including EA1N.		The Applicant is undertaking a review of available evidence on this matter and will continue engagement with NE in order to agree a way forward.
5	Natural England agrees with the conclusion that there is likely to be no adverse effect alone as a result of red-throated diver displacement due to cable laying. Our conclusion is based on the fact that the cable laying operations are of a temporary nature. However, given Natural England's view that we are already unable to rule out AEOI in-combination from displacement as a result of disturbance within the SPA, we maintain that a seasonal restriction		Notwithstanding NE's concerns on wider in-combination displacement, the Applicant considers that the statement in **section 12.6.1.1.1 of *Chapter 12 Offshore Ornithology*** (APP-060) remains valid - on the basis that *"a maximum of 10 [rounded from 9.5] birds would die as a result of displacement over this period, a seasonal restriction is not considered to be*

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	in cable laying activity should put be in place to minimise the effects on red-throated diver.		*justified (or proportionate)…in addition to the measures set out in the best practice protocol for red-throated divers"* Where applicable, best practice vessel management as described in the best practice protocol for red-throated divers will apply for cable laying vessels. Furthermore, the worst case assessment of 10 (rounded from 9.5) mortalities would occur in a single winter season, and the mortality would only reach this level if all of the worst case parameters advised by NE are applied, i.e. 100% displacement, 10% mortality and cable laying within the SPA extending for the entire winter. Since the cable laying vessels will move at between 80-300m/hr, with an assumed 12 hour working day, the vessel will traverse the 25km of SPA in the cable route in 7 to 20 days. The winter period defined for red-throated divers is defined as approximately 240 days. Therefore, on the basis of the realistic duration of works, the precautionary assumption that this impact would last for the whole non-breeding season over-estimates the impact magnitude by 9 to 35 times. Thus, just on the basis of the time the vessels are expected to be present in the SPA, the worst case mortality of 10 is more likely to be no more than 0.3 to 1.1 individuals.
6	Natural England notes the Applicant does not provide any estimate for the number of red throated divers that will be displaced. We acknowledge that there will be no displacement if		The Applicant is undertaking a review of available evidence on this matter and will continue engagement with NE in order to agree a way forward.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	the maximum distance for displacement effects are 4km (or indeed 8km) from the SPA. However, the extent of displacement effects is known to extend to at least 10km, and therefore if a 10km buffer is used, there will be a reduction in habitat availability in part of the SPA and a small number of divers are likely to be displaced, contributing to the in-combination effects.		
7	The focus on predicted mortality and the effect this would have on the abundance of red-throated divers within the SPA is not the only issue for assessing impacts on the SPA. As stated previously, the change in distribution of divers due to the close proximity of the proposed array to the OTE SPA also needs to be considered. Moreover, it is worth noting that the mortality rates are a relatively crude method of capturing a range of potentially deleterious effects that could arise from displacement, including reduced fitness for migration and reduced productivity during the breeding season. Natural England acknowledges that the estimates of the red-throated diver population in the OTE SPA have recently increased significantly. Although there is a possibility that this reflects a real increase in abundance over time, this increase is most likely to be due primarily to the change in survey platform, moving from visual aerial to digital aerial surveys which have much higher detection rates, and fly at a higher altitude and are therefore less disturbing. In any event, in addition to considering the objective of maintaining abundance, it is important that the extent of available habitat within the SPA is maintained.		The Applicant agrees that the application of mortality rates (as advised by NE) is a crude approach for considering the potential impacts of displacement. Furthermore, it is also the most precautionary, since impacts on adult survival for relatively long-lived, slow breeding species such as this will always have the greatest effect on the population. The other effects noted by NE (e.g. reduced reserves for migration or reproduction) will all have much lower overall impacts on the population. The Applicant is undertaking a review of available evidence on this matter and will continue engagement with NE in order to agree a way forward.

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	There are in-combination effects from operational windfarms within the SPA. As noted by the Applicant, low densities within existing operational windfarms reported in Irwin and others (2019) provides evidence of the impact of operational windfarms on the distribution of red-throated divers within the SPA.Natural England is already of the opinion that an AEOI of the red-throated diver population of the OTE SPA cannot be ruled out beyond all reasonable scientific doubt, as a result of the scale of in-combination displacement due to consented and operational projects within the SPA (Natural England, 2019). Our advice remains that AEOI in-combination cannot be ruled out. Any additional effects in terms of reduced habitat availability and changing the distribution of red-throated diver within the SPA as a result of EA2 will only add to in-combination impacts.		
2 Collision Risk Modelling (CRM) parameters. **Document used: 6.1.12 EA2 Environmental Statement Chapter 12 Offshore Ornithology, 6.3.12.2 EA2 Environmental Statement Appendix 12.2 Ornithology Technical Appendix, 5.3 EA2 Information to Support the Appropriate Assessment Report**			
8	Natural England notes that the Band model (2012) and CRM Option 2 has been used. Use of Option 2 was accepted by Natural England during the Evidence Plan process in preference to Option 1 of the model, after it was communicated that APEM had no confidence in the site specific flight heights derived from digital aerial methods. The main assessment does not consider the CRM		The Applicant has undertaken assessment of collision risks using option 2 of the Band (2012)[44] collision risk model. Use of this model option was agreed in consultation with NE and the RSPB through the Evidence Plan Process (see ***Appendix 12.1*** of ***Chapter 12 Offshore Ornithology*** (APP-060) and followed advice from the digital aerial surveyor that their

[44] Band, W. (2012) Using a collision risk model to assess bird collision risks for offshore wind farms. The Crown Estate Strategic Ornithological Support Services (SOSS) report SOSS-02. SOSS Website. Original published Sept 2011, extended to deal with flight height distribution data March 2012

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	predictions from the Band Option 1 outputs, only those for Option 2. We note that in Annex 4 of Appendix 12.2 that the results using Option 1 are presented in Tables 21 and 22. The % Potential Collision Heights (PCHs) for these species from the site-specific data are significantly higher than those from the generic data, and the resulting CRM predictions are considerably higher than those from Option 2 (e.g. 57.99 kittiwake collisions from Option 2 compared to 261.79 from Option 1 for the central input values). Natural England acknowledges the concerns of the aerial survey contractors over the aerial survey data flight height figures, noting this was also the case at Thanet Extension, where aerial survey data flight height figures were also significantly higher than the generic flight heights. However, this dataset emphasises the critical importance of considering potential variability in flight heights when assessing collision risk impacts, rather than assuming the central input value necessarily represents the 'most likely' impact. Accordingly, we recommend that the Applicant takes a more narrative approach to the assessment, and considers the Option 1 outputs for the above species in the context of the relevant Option 2 95% CIs, as part of a more range-based approach to consideration of CRM impacts. This should not just consider the mean/central predicted collision figures, but also those based on the range of predicted figures resulting from the Applicant's consideration of the uncertainty/variability in the input parameters.		method to estimate seabird flight height was insufficiently robust to be relied upon for use in the site specific (i.e. option 1) version of the Band model. Consequently, the Applicant does not consider that the option 1 collision estimates should be used in the assessment and this had been agreed with stakeholders. The collision assessments presented confidence intervals around the mean predictions derived from upper and lower 95% confidence intervals on the seabird density estimates, avoidance rates and generic flight heights (APP-470) and of these the estimates around density, which are the widest and therefore most precautionary, have been considered in the assessment (e.g. through assessment of the change in background mortality expected for the mean, lower and upper estimates). Therefore, the Applicant considers that the collision assessment has given full consideration to the uncertainties in the input parameters and these have been presented in an appropriate manner.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
9	It is of concern that the predicted mortalities using CRM Option 1, based on site specific estimates of PCH are significantly higher than the outputs using Option 2, which is based on generic boat based estimates of flight height.		The Applicant provided the option 1 collision estimates at the request of NE but, as noted in response to the previous comment, they are not considered reliable and have not been considered in the assessment, as agreed with NE during the Evidence Plan Process.
10	Natural England welcomes that the Applicant has incorporated uncertainty in seabird density, collision avoidance rates, flight heights and nocturnal activity in their collision assessments. This has been undertaken using the Band (2012) model and presenting multiple tables of the outputs using the variations in the various parameters, as presented in Annex 4 of Appendix 12.2 of the submission documents. Whilst we welcome that the Applicant has considered the uncertainty/variability in this way, we note that this does not allow the uncertainty/variability in the various input parameters to be fully integrated. Therefore, we recommend that if the Applicant undertakes any further collision risk modelling that this is undertaken using the Marine Scotland Science (MSS) stochastic collision risk model (sCRM), and that the log file produced by the sCRM is also included. We note that there are ongoing issues with the sCRM tool which need to be addressed, so we accept that the use of the sCRM tool is dependent on any coding errors in the tool being rectified.		Noted. The Applicant will continue to monitor the status of the MSS sCRM model throughout the examination period.
11	Natural England welcomes that the SNCB recommended Avoidance Rates have been used.		Noted.

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12	Natural England acknowledge that evidence from the ORJIP collision avoidance study indicates that Avoidance Rates for gannet may be higher than the Avoidance Rates currently recommended by the SNCBs. Natural England are content for the inclusion of Avoidance Rates from Bowgen & Cook (2018) within impact assessments, provided that they are presented alongside outputs based on the SNCB recommended Avoidance Rates.		Noted. The avoidance rates on which the conclusions of the assessment are based are those recommended by NE. However, where appropriate, collision estimates using the Bowgen & Cook (2018)[45] gannet avoidance rate are presented alongside these.
13	Natural England recognise from recent evidence presented e.g. by Furness and others (2018) that nocturnal activity levels for some species may be lower than the levels that equate to the nocturnal activity factors currently used in CRM. However, we also note that there is uncertainty about the empirical activity levels and uncertainty about how these might translate into nocturnal factors applicable to the Band model. Nevertheless, we do note and welcome that the Applicant has considered the range of Natural England advised nocturnal activity factors to be used with the Band (2012) and therefore we will consider the predicted impacts on the basis of the Natural England recommended rates for all species.		Noted.
14	Natural England welcomes the use of our recommended Avoidance rates and nocturnal activity factors, and accept that there is an argument to present the Applicant's preferred options alongside. However, given the significant difference in predicted mortality when Option 1 is used, we advise suggest that this demonstrates that overall assessments of collision risk may not be		The Applicant again notes the responses made to the previous comments (on the unreliability of the flight height estimates on which the option 1 estimates are based) and stresses that these figures should not be considered in the assessment. As a consequence, the Applicant disagrees that the value of the option 1

[45] Bowgen, K. and Cook, A. (2018). Bird Collision Avoidance: Empirical evidence and impact assessments. JNCC Report No. 614, JNCC, Peterborough.

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	precautionary enough. The fact that predictions would be significantly higher using Option 1 adds strength to the argument that hub height should be increased to reduce the collision risk as much as possible.		estimates indicates a need for increased precaution, since the estimates are known to be unreliable to an unknown extent.
3. Cumulative and In-combination Assessments **Documents used: 6.1.12 EA2 Environmental Statement Chapter 12 Offshore Ornithology (Paragraph numbers given refer to this document), 6.3.12.3 EA2 ES Appendix 12.3 Supplementary Information for the Cumulative Impact Assessment.**			
15	Natural England advises that the cumulative operational displacement assessment totals for red-throated diver are based on an incomplete data set. Table 12.37 excludes a number of projects including Gunfleet Sands, Kentish Flats, Kentish Flats Extension, London Array and Scroby Sands. These missing projects will reduce the confidence in the assessments and result in a significant under-estimation of the cumulative/in-combination assessments.		As shown in ***Table 12.3.7*** of ***Appendix 12.3* of *Chapter 12 Offshore Ornithology*** (APP-471), the cumulative assessment presented no displacement mortality estimates for these projects either because red-throated diver was a) not assessed in these windfarm assessments or b) only a qualitative assessment was presented. Therefore, it was not possible to include these projects in the Applicant's red-throated diver cumulative assessment. It should be noted however, that the SeaMast dataset which has informed the assessment takes into account these projects given that the surveys were conducted while these projects were operational.
16	Natural England advises that the comparative approach to red-throated diver displacement assessment is welcomed. In Appendix 12.3,Table A12.3.9 it is noted that only five of the 38 projects listed have a higher relative contribution than EA2, and these (London Array, Gunfleet Sands, Kentish Flats and Scroby		The Applicant is undertaking a review of available evidence on this matter and will continue engagement with NE in order to agree a way forward.

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	Sands) four are constructed within the OTE SPA, and EA1N which immediately abuts the OTE SPA		
17	As mentioned in Point 18, Table 12.37 does not include a number of windfarms, which results in a significant underestimate of impact. Therefore the total annual mortality figure of 37 -409 individuals is a possible under-estimation. However, even as a potential underestimate, the predicted mortality of 37 – 409 birds as a result of displacement is significant, resulting as it does in an increase of 16.2% in the mortality rate of the total reference population of red - throated divers in this area in the non-breeding season (Appendix 12.3). When using the biogeographic estimate of individuals, the increase in mortality by between 0.6% and 6.6%, which is of concern.		With regards to the point regarding projects missing from the red-throated diver cumulative displacement assessment, refer to the Applicant's response to Point 15 of Offshore Ornithology. Regarding the predicted mortality of red-throated diver, the Applicant is undertaking a review of available evidence on this matter and will continue engagement with NE in order to agree a way forward.
18	The contribution that EA2 makes is clear in Table A12.3.10. EA2 alone contributes 2.8% of the cumulative total, whereas all other Tier 4 projects combined (i.e. excluding EA2 but including EA1N) contribute 12.3% of the relative contribution to potential displacement. Although the approach considering the relative contribution to the cumulative total is helpful, and identifies that contribution made by EA2 is not insignificant, it does not adequately consider the overall level of cumulative displacement. This is due to displacement from a number of projects not being included.		As agreed at SoCG meeting 1 with NE, in order to avoid duplication of work, the Applicant will address cumulative/in-combination matters once a Secretary of State (SoS) decision on Norfolk Vanguard and Hornsea Project 3 has been made. With regards to the point regarding projects missing from the red-throated diver cumulative displacement assessment, refer to the Applicant's response to Point 15 of Offshore Ornithology.

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19	Whilst it is stated by the Applicant that the assessment includes several sources of precaution, it includes assumptions that may not reflect the full extent of diver displacement. Although Natural England welcomes that assumptions around 100% displacement out to 4km are used, we know that in some cases this may underestimate the degree of displacement if the extent of displacement is 10km or more in some cases. In addition, there are a number of OWF excluded from the analysis and it is therefore not considering the full extent of cumulative displacement.		As agreed at SoCG meeting 1 with NE, in order to avoid duplication of work, the Applicant will address cumulative/in-combination matters once a SoS decision on Norfolk Vanguard and Hornsea Project 3 has been made. With regards to the point regarding projects missing from the red-throated diver cumulative displacement assessment, refer to the Applicant's response to Point 15 of Offshore Ornithology. Regarding the cumulative displacement impact on red-throated diver, the Applicant is undertaking a review of available evidence on this matter and will continue engagement with NE in order to agree a way forward.
20	Due to the Applicant's worst case scenario assessment of minor adverse, and considering that some projects are not included in the assessment, Natural England is unable to rule out a significant adverse effect for cumulative operational displacement on red-throated diver at the EIA scale.		As agreed at SoCG meeting 1 with NE, in order to avoid duplication of work, the Applicant will address cumulative/in-combination matters once a SoS decision on Norfolk Vanguard and Hornsea Project 3 has been made. With regards to the point regarding projects missing from the red-throated diver cumulative displacement assessment, refer to the Applicant's response to Point 15 of Offshore Ornithology.
21	Natural England welcomes that a quantitative cumulative estimate of gannet displacement has been included. We agree that effect of cumulative displacement for gannet is likely to be negligible at the EIA scale.		The Applicant notes that NE agrees that the effects of cumulative displacement on gannet is likely to be negligible at the EIA scale.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
22	The cumulative auk (razorbill and guillemot) operational displacement assessment totals are based on an incomplete data set. The following wind farm projects are missing from the assessments: Beatrice Demonstrator, Gunfleet Sands, Kentish Flats, Kentish Flats Extension, Methil, Rampion and Scroby Sands. Whilst these missing projects are likely to involve low numbers of auks, the missing data would reduce confidence in the assessments and due to the potential under-estimation of the cumulative assessments.		As described in ***section 12.7.3*** of ***Chapter 12 Offshore Ornithology*** (APP-060) a review of the BDMPS regions for guillemot and razorbill indicated that all the windfarms identified for inclusion in the CIA in ***Table 12.37*** of the chapter have the potential to contribute a cumulative effect. This table includes all of the projects highlighted by NE except Methil. However, for Kentish Flats, Scroby Sands, Gunfleet Sands and Beatrice Demonstrator there are no data on displacement mortalities available for these species from their assessments. It is acknowledged that Kentish Flats Extension, Rampion and Methil were not included in the EIA and no explanation was provided. The Applicant can clarify that displacement mortality estimates for these projects were not included because: • Kentish Flats Extension – Razorbill were not included in the Kentish Flats Extension displacement assessment and no quantitative assessment of displacement mortality for guillemot was undertaken. It is noted that low numbers of guillemot (14) were recorded in the Kentish Flats Extension windfarm site and 2km buffer; • Rampion – a quantitative assessment of displacement mortality on razorbill and guillemot was not undertaken for this project; and

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
			• Methil – An assessment of operational displacement was not carried out for razorbill and guillemot in this project's EIA.
23	It should be noted that at Vanguard, Natural England was unable to rule out a significant adverse effect for cumulative operational displacement on razorbill or guillemot at the EIA scale. Furthermore, during the Vanguard examination, due to Natural England's concerns regarding the incomplete baseline surveys for the Hornsea 3 project, and the associated level of uncertainty as regards the potential impacts of that project, Natural England was not in a position to advise that an AEOI could be ruled out for the razorbill and guillemot features of the Flamborough and Filey Coast SPA (FFC SPA) for impacts in-combination with other plans and projects when Hornsea 3 was included in the in-combination total. Please see our comments on the Applicant's Deadline 8 updated auk displacement assessment submitted at Deadline 9, available from: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010079/EN010079-003190-DL9%20-%20Natural%20England%20-%20Deadline%20Submission.pdf. The East Anglia OWFs are adding further birds to these totals, as would Hornsea 4, and therefore our assessment is that it is not possible to rule out a significant effect at cumulative EIA scale for		As agreed at SoCG meeting 1 with NE, in order to avoid duplication of work, the Applicant will address cumulative/in-combination matters once a SoS decision on Norfolk Vanguard and Hornsea Project 3 has been made.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	guillemot and razorbill displacement, or an adverse effect on integrity of the guillemot and razorbill features of the FFC SPA.		
24	The cumulative annual gannet collision risk prediction of 2,607 as set out in Table 12.43 differs to the totals agreed at the end of the Norfolk Vanguard examination, which was 2,735. It is not clear why these two totals differ. We seek clarification regarding this matter. We also note that the totals do not include figures from Hornsea 4. A PEIR for this project is available. Even without the additional figure from Hornsea 4, the total predicted annual mortality exceeds 1% of baseline mortality. Therefore these impacts require further consideration. Furthermore, during the Vanguard examination, due to Natural England's concerns regarding the incomplete baseline surveys for the Hornsea 3 project, and the associated level of uncertainty as regards the potential impacts of that project, Natural England was not in a position to advise that an AEOI could be ruled out for the gannet features of the Flamborough and Filey Coast SPA (FFC SPA) for impacts in-combination with other plans and projects when Hornsea 3 was included in the in-combination total.		As agreed at SoCG meeting 1 with NE, in order to avoid duplication of work, the Applicant will address cumulative/in-combination matters once a SoS decision on Norfolk Vanguard and Hornsea Project 3 has been made.
25	Natural England acknowledges that as built scenarios are an important issue with regard to cumulative/in-combination CRM predictions and assessments. However, without a legally secured reduction in the consented Rochdale envelope, and an agreed strategic approach and re-run CRM with the final design		See the Applicant's response to Point 30 of Offshore Ornithology below which reflects the Applicant's position on this matter.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	parameters, cumulative/in-combination assessments should be based on the CRM predictions that were consented. We note that EA1 is currently the only project to date to meet these tests.		
26	Natural England acknowledges that a higher avoidance rate of 99.5% for gannet has been recommended by Bowgen & Cook (2018) and that this would significantly reduce the cumulative total. Natural England and the other SNCBs are currently considering our response to the recommendations in Bowgen & Cook (2018). Our current advised avoidance rates are those set out in SNCBs (2014).		The Applicant welcomes the consideration by NE and the other SNCBs of the higher, evidence-based gannet avoidance rates described in Bowgen and Cook (2018). As agreed at an ETG meeting on the 20th June 2019, the Applicant has presented project-alone collision mortality estimates for gannet and kittiwake based on the 98.9% rate recommended by NE (see ***Table 12.34*** of ***Chapter 12 Offshore Ornithology*** (APP-060)) alongside the 99.5% Bowgen and Cook (2018) rate (see ***Table 12.35*** of ***Chapter 12 Offshore Ornithology*** (APP-060), the latter being presented for information only.
27	Natural England acknowledges that assuming 25% nocturnal activity with gannet is precautionary, and that is why we have moved to a position of presenting a range of nocturnal activity between 0% and 25%. We note that the nocturnal activity factor from the review of nocturnal activity in gannets (Furness and others 2018) has not been used in the assessment.		Refer to the response at Point 32 of Offshore Ornithology.
28	It is acknowledged that if the higher avoidance rates in Bowgen & Cook (2018) are used, the overall impact significance will be reduced. However, Natural England advised that a significant (moderate adverse) impact on gannet at the EIA scale could not be ruled out due to cumulative collision totals at the end of the		As agreed at SoCG meeting 1 with NE, in order to avoid duplication of work, the Applicant will address cumulative/in-combination matters once a SoS decision on Norfolk Vanguard and Hornsea Project 3 has been made.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	Vanguard hearing, and therefore adding more collisions from Boreas, the East Anglia projects and Hornsea 4 will not change this position.		
29	Natural England advises that the kittiwake cumulative collision risk assessment in Table 12.44 differs to the totals agreed by Natural England at the end of the Vanguard hearing. This agreed total was 4,114. There will also be a need to include the figures from Hornsea 4's PEIR. Before these figures are added there is already a 2.5% increase above baseline mortality.		As agreed at SoCG meeting 1 with NE, in order to avoid duplication of work, the Applicant will address cumulative/in-combination matters once a SoS decision on Norfolk Vanguard and Hornsea Project 3 has been made.
30	Whilst Natural England notes that some projects have built out to less than their consented capacity, we do not accept that it is appropriate to revisit the cumulative collision risk whilst consents for unused capacity remain in place and in the absence of re-run collision risk assessments using the built turbine parameters.		The Applicant acknowledges NE's position and has therefore based the cumulative assessments on project designs from original worst case ES assessments or updated ornithological assessments that have been undertaken as part of a non-material change (relevant for windfarms in England) or a varied Section 36 consent (relevant for windfarms in Scotland) application. ***Table A12.3.1*** in ***Appendix 12.3 - Information for the Cumulative Assessment*** (APP-471) clearly sets out the origin of each of the mortality figures used in the cumulative assessment (and indicates if a 'theoretical' or non-consented as-built figure is also presented). The only projects included in the CIA used in the ES which fit NE's description of "*consents for unused capacity* [which] *remain in place*" are for Inch Cape and Neart na Gaoithe – however in both these cases the projects did re-run the collision risk assessments

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
			for the new worst case. In the case of these two projects, whilst NE may state that there is potential to build out under the old consents (as these have yet to be rescinded) the fact remains that the worst cases on which the original consents were based represent uneconomic or obsolete technology. For Neart na Gaoithe the turbines have already been procured as construction is underway[46]. The Applicant has produced a note on precaution within offshore ornithology impact assessments which discusses the use of 'as-built' mortality figures. This includes consideration of the mechanisms which would prevent 'build out' as envisaged by NE (see ***section 2.3*** of ***Appendix 4*** of this document). The Applicant also welcomes NE's recent submissions for the Norfolk Boreas project in which NE have agreed that '*there is likely to be some headroom; however the exact extent of any potential headroom is not agreed'*.[47]
31	Natural England acknowledges that a higher avoidance rate of 99% for kittiwake has been recommended by Bowgen & Cook (2018) and that this would reduce the cumulative total. Natural		Noted. The Applicant would like to understand if there is potential for NE to reach a decision on this during the examination period.

[46] https://www.edfenergy.com/media-centre/news-releases/construction-neart-na-gaoithe-offshore-wind-farm-project-go-ahead

[47] Natural England, 2020. Deadline 9 Natural England's Updated Offshore Ornithology Advice Norfolk Boreas. Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-002099-EN010087_Boreas_D9_13_Updated%20Ornithology%20advice.pdf

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	England and the other SNCBs are currently considering our response to the recommendations in Bowgen & Cook (2018).		
32	Natural England notes the comments on nocturnal activity, and notes that reducing the nocturnal activity would result in a reduction in predicted mortality.		***Annex 4*** of ***Appendix 12.2*** (APP-470) presents various collision mortality estimates based upon a range of nocturnal activity factors relevant to each particular species. For kittiwake, lesser black-backed gull, greater black-backed gull and herring gull, the nocturnal activity rate on which the conclusion of significance of project-alone collision impact is based is 50%. However, the collision mortality estimate based on a nocturnal activity rate of 25% is also provided. For gannet, the nocturnal activity rate on which the conclusion of significance of project-alone collision impact is based is 25% however collision mortality estimates based on nocturnal activity rates of 8% during the breeding season and 4% during the non-breeding season (as described in Furness, et al, 2018[48]) are also presented. Additionally, ***section 2.2.2.2*** and ***Table 2.2*** of ***Appendix 4*** of this document, describes the reductions in collision mortality estimates that could be achieved if lower, more realistic nocturnal activity rates are used. ***Table 2.2*** highlights potential project alone collision

[48] Furness, R.W., Garthe, S., Trinder, M., Matthiopoulos, J., Wanless, S. & Jeglinski, J. (2018). Nocturnal flight activity of northern gannets *Morus bassanus* and implications for modelling collision risk at offshore wind farms. Environmental Impact Assessment Review, 73, https://doi.org/10.1016/j.eiar.2018.06.006

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
			mortality reductions of 15.4% for kittiwake, 12.2% for lesser black-backed gull and 20% for gannet. It is not straightforward to accurately apply these updates to nocturnal activity rates cumulatively and so this has not been shown in ***Appendix 4***. However, it is clear that if similar reductions in overall mortality estimates were realised from an amendment to nocturnal activity rates at other projects, then the current cumulative mortality estimate for all species against which all offshore windfarm ornithology assessments are assessed is a significant overestimate.
33	Natural England notes that taking into account some elements of potential precaution e.g. nocturnal activity rates will lead to a reduction in mortality estimates. However, there are elements of the assessment, such as the use of generic potential collision heights (PCHs) rather than site specific PCHs, which could result in an underestimate of collision risk. There is also the critical issue of variability in all of the input data, not least in bird density. In that context, Natural England advised that a significant (moderate adverse) impact on kittiwake cannot be ruled out due to cumulative collision totals at the end of Vanguard, and therefore adding more collisions from Boreas, the East Anglia projects and Hornsea 4 will not change this position.		As agreed at SoCG meeting 1 with NE, in order to avoid duplication of work, the Applicant will address cumulative/in-combination matters once a SoS decision on Norfolk Vanguard and Hornsea Project 3 has been made. The Applicant also considers that NE's approach to the assessment, which is based on combinations of highly precautionary assumptions, results in conclusions that are over precautionary. For example, while it is reasonable to consider uncertainty about individual parameters within the collision model by modelling a range of values and giving due consideration to the higher mortalities obtained, if this is applied to multiple parameters simultaneously (e.g. nocturnal activity, avoidance rate and flight height) then there is a high

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
			risk of presenting extremely unlikely combined outcomes as realistic. Furthermore, when these are then combined with precautionary assumptions about foraging ranges, extended breeding seasons and density independence in population modelling, the final outcome may potentially be an extremely large over-estimate of realistic impacts magnitudes. The increase in over precaution in impact assessment has come about gradually in offshore wind impact assessment as the process has become increasingly technical. The Applicant considers there to be an urgent need for NE to give detailed consideration to the level of combined precaution currently applied in ornithology impact assessment with the aim that this should be treated in a more proportionate manner. The Applicant has produced a note on precaution within offshore ornithology impact assessments (***Appendix 4*** of this document).
34	As stated for gannet and kittiwake, whilst Natural England notes that some projects have built out to less than their consented capacity, we do not accept that it is appropriate to revisit the cumulative collision risk for lesser black-backed gull when consents for unused capacity (including phased builds) remain in place and in the absence of re-run collision risk assessments using the built turbine parameters. Please see comment 28 above.		See the response to Point 30 of Offshore Ornithology which reflects the Applicant's position on this matter.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
35	As stated for gannet and kittiwake, Natural England notes that it is suggested that using a nocturnal activity factor of 3 (50%) in collision risk modelling is likely to be an overestimate nocturnal activity. For that reason we advise that a range between 25% and 50% are presented with the assessment.		The Applicant welcomes NE's agreement that a 50% nocturnal activity rate for gulls is probably too high. Refer to the Applicant's response to Point 32 of Offshore Ornithology for more detail on the nocturnal activity rates presented within the assessment.
36	Whilst Natural England acknowledges that there are elements of the cumulative assessment that result in a higher mortality total, we have concerns about use of Option 2 and the fact that much higher predicted collisions are predicted when using Option 1. However, we agree that the cumulative impact on lesser black- backed gull at the EIA scale is minor adverse (not significant).		The Applicant has undertaken assessment of collision risks using option 2 of the Band (2012) collision risk model. Use of this model option was agreed in consultation with NE and the RSPB through the Evidence Plan Process (see ***Appendix 12.1*** of ***Chapter 12 Offshore Ornithology*** (APP-060) and followed advice from the digital aerial surveyor that their method to estimate seabird flight height was insufficiently robust to be relied upon for use in the site specific (i.e. option 1) version of the Band model. Consequently, the Applicant does not consider that the option 1 collision estimates should be used in the assessment and this had been agreed with stakeholders. The Applicant welcomes that NE is in agreement with the conclusion of the cumulative assessment (for EIA) on lesser black-backed gull.
37	As stated above, whilst Natural England notes that some projects have built out to less than their consented capacity, we do not accept that it is appropriate to re-calculate the cumulative collision risk when consents for unused capacity (including phased builds)		See the response to Point 30 of Offshore Ornithology above which reflects the Applicant's position on this matter.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	remain in place and in the absence of an agreed strategically re-run collision risk assessments using the built turbine parameters. Please see comment 28 above.		
38	Natural England notes that it is suggested that using a nocturnal activity factor of 3 (50%) in collision risk modelling is likely to be an overestimate of nocturnal activity. For that reason we advise that a range between 25% and 50% are presented with the assessment.		The Applicant welcomes NE's agreement that a 50% nocturnal activity rate for gulls is probably too high. Refer to the Applicant's response to Point 32 of Offshore Ornithology for more detail on the nocturnal activity rates presented within the assessment.
39	The Population Viability Analysis (PVA) model outputs predicted populations being up to 7.7% smaller using the density dependent model, and up to 21.5% smaller than the un-impacted scenario using density independent outputs based on an annual mortality of 900. At the end of the Norfolk Vanguard examination Natural England's position was that we were unable to rule out a significant (moderate adverse) effect on great black-backed gull from cumulative collision mortality at an EIA scale, and that position has not changed.		As agreed at SoCG meeting 1 with NE, in order to avoid duplication of work, the Applicant will address cumulative/in-combination matters once a SoS decision on Norfolk Vanguard and Hornsea Project 3 has been made.
40	Natural England disagrees with the summary that concludes no greater than minor adverse significance for all species. At the end of Norfolk Vanguard we advised significant adverse effect at EIA for cumulative collision for gannet, kittiwake and great black-backed gull. Since then more birds have been added to these totals from Boreas, EA1N, EA2 and also Hornsea 4, and as a result our position on these species remains unchanged.		As agreed at SoCG meeting 1 with NE, in order to avoid duplication of work, the Applicant will address cumulative/in-combination matters once a SoS decision on Norfolk Vanguard and Hornsea Project 3 has been made.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
4. Scale of predicted cumulative and in-combination impacts and requirement for mitigation. **Documents used: 5.3 EA2 Information to Support the Appropriate Assessment Report, 6.1.12 EA2 Environmental Statement Chapter 12 Offshore Ornithology, 6.3.12.3 EA2 ES Appendix 12.3 Supplementary Information for the Cumulative Impact Assessment.**			
41	Natural England has previously provided regulators with our advice regarding our concerns about predicted level of cumulative and in-combination impacts on North Sea seabirds. For EIA we have been unable to rule out a significant adverse effect for cumulative operational impacts on: • kittiwake, gannet and great black-backed gull for cumulative collision impacts; • guillemot, razorbill and red-throated diver for cumulative displacement impacts • For HRA we have been unable to rule out adverse effect on integrity on: • kittiwake from FFC SPA due to in-combination collision impacts not including Hornsea 3, and gannet from FFC SPA due to in-combination collision impacts when Hornsea 3 is included. • guillemot and razorbill at FFC SPA due to in-combination displacement effects when Hornsea 3 is included. • lesser black-backed gull from Alde-Ore Estuary SPA due to in-combination collision impacts. • red-throated diver from Outer Thames Estuary SPA due to in-combination displacement effects.		As agreed at SoCG meeting 1 with NE, in order to avoid duplication of work, the Applicant will address cumulative/in-combination matters once a SoS decision on Norfolk Vanguard and Hornsea Project 3 has been made. Regarding the impacts on red-throated diver in the OTE SPA, The Applicant is undertaking a review of available evidence on this matter and will continue engagement with NE in order to agree a way forward.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	These concerns as expressed during the Vanguard examination are likely to only intensify given that additional birds from Boreas, the East Anglia projects and Hornsea 4 are being added to these totals. Natural England therefore considers that without major project-level mitigation being applied to all relevant projects coming forward, there is a significant risk of large-scale impacts on seabird populations. Natural England therefore recommends that EA1N and EA2 commit to raising turbine draught height, as has been done by other projects (e.g. Hornsea 2, East Anglia 3 and Vanguard), in order to minimise their contribution to the cumulative/in-combination collision totals by as much as is possible. We also strongly recommend that the boundary of EA1N and EA2 arrays are re-designed to ensure that arrays are at least 10km from the boundary of the OTE SPA to avoid displacement of red-throated diver within the SPA.		
5. Post consent monitoring. **Documents used: 8.13 EA2 Offshore In Principle Monitoring Plan**			
42	Natural England welcomes the statement in the In Principle Monitoring Plan that the Applicant will engage with stakeholders and that the methodology would be developed through the Ornithological Monitoring Plan (required under Condition 14(1) (l) of Schedule 9 and 10 of the DCO). We agree with the Applicant that the aims of monitoring should be to reduce uncertainty for future impact assessment and address knowledge gaps.		As agreed at SoCG meeting 1 with NE, in order to avoid duplication of work, the Applicant will address cumulative/in-combination matters once a SoS decision on Norfolk Vanguard and Hornsea Project 3 has been made. Following this, the Applicant will consider this matter further. Additionally, the Applicant is currently preparing a clarification note with regard to red throated diver which

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	However, we disagree with the Applicant's assertion that displacement effects on red-throated diver would not create impacts of more than minor adverse significance during any biological season during construction and operation phases. Validating the extent of red-throated diver displacement will be the main priority for any post-consent monitoring. Natural England also disagrees that the risk to birds from cumulative collisions with wind turbines across all windfarms considered is assessed as no greater than minor adverse significance for all species. For kittiwake, gannet and great black-backed gull we are unable to rule out significant impact cumulatively. Given Natural England's previous advice at recent projects regarding our concerns about predicted levels of cumulative and in-combination impacts on seabirds and this project's likely contribution to those impacts should it be consented, we consider the aspects that are likely to be relevant for consideration for post-consent monitoring are as follows: • Validating levels of red-throated diver displacement; • Improving our understanding of collision risk (which could potentially include monitoring of collisions at the site via cameras on turbines, improvements to modelling, options for mitigation and reduction); • Collection of reliable data on seabird flight heights. Once the final impact figures are agreed, the key issues should be identified so that discussion can be held with relevant stakeholders		will be discussed with NE and will be submitted during the Examination. As a result, NE's comments regarding ornithological monitoring are currently under consideration by the Applicant.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
	and the Applicant to identify what it the most appropriate focus of post consent ornithological monitoring.		
43	Natural England notes that reference is made to supporting "joint industry projects or alternative site based monitoring of existing seabird activity inside the area(s) within the Order Limits in which it is proposed to carry out construction works with its potential wider benefits." It is not clear what is being proposed or what the mechanism may be to ensure that appropriate monitoring is undertaken. We therefore recommend that the most significant area or areas of ornithological uncertainty is identified, and an in-principle monitoring plan is agreed.		With regard to project-level ornithological monitoring, please see the Applicant's response to Point 23 of DCO, DMLs and Related Certified Documentation below. As noted above, the Applicant is a subsidiary of SPR and with regard to ornithological strategic monitoring, SPR has been at the centre of driving progress in the offshore wind industry, from advancing the deployment of innovative aerial survey techniques early on East Anglia ONE that saw their widespread uptake elsewhere in favour of boat based surveys, to providing technical and financial input into the Offshore Renewables Joint Industry Programme (ORJIP) Bird collision avoidance study at Thanet Offshore Wind Farm, and to hosting an annual Strategic Ornithology Conference comprising academics, regulators and offshore wind developers from across the UK to share updates on new science and understand knowledge gaps. SPR has also been a leading contributor to the recently completed Offshore Wind Strategic Monitoring Forum (OWSMRF) pilot project which formed as an outcome of the 2018 Strategic Ornithology conference. OWSMRF brought scientific, regulatory and developer representatives together to discuss and

Point	Taken from NE's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Assigned by NE	Applicant's Comments
			document the strategic knowledge gaps facing the industry which were beyond the scope of individual offshore wind projects to address, with the aim of drafting scopes of work which could be taken forward by industry groups to close those gaps. Following completion of OWSMRF, SPR is co-ordinating engagement across the developer group to seek funding for taking forward the scopes of work through ORJIP, TCE Enabling Actions, developer partnerships and academia. However, this strategic support is not considered to be relevant to the application as strategic monitoring is not appropriate at a project level in the context of a DCO.

4.18.1.2 Marine Mammals

Table 36 Applicant's Comments on Natural England's Relevant Representation (Marine Mammals)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix B - Marine Mammals	RAG Status Assigned by NE	Applicant's Comments
Document Used: 6.1.11 EA2 Environmental Statement Chapter 11 Marine Mammals			
1	The phrases 'same day' and '24 hour period' seem to be used interchangeably throughout the marine mammal chapter and associated documentation when they are not quite the same thing. If this follows through to the assessment stage Natural England considers a clarification note may be required as to the intended wording and any consequences for either the EIA or HRA.		In the assessment same day and 24hrs have both been used and assume a 24hr period from midnight - midnight For implications, see the Applicant's response to Point 3 of Marine Mammals below.
Document Used: 5.3 EA2 Information to Support Appropriate Assessment Report			
2	Natural England welcomes the commitments from the Applicant listed here and considers they should be specifically conditioned on the face of the deemed marine licence (DML), particularly to ensure there is no concurrent piling between EA1N and EA2. Please see Point 11 in Appendix G.		These commitments are listed in section 6.1 of the ***In-Principle Site Integrity Plan*** (SIP) (APP 594) and other commitments are listed within the draft Marine ***Mammal Mitigation Protocol*** (MMMP) (APP 591). Final versions of the SIP and MMMP must be submitted to and approved by the MMO and must accord with the in-principle/draft plans. It is not considered necessary to include such commitments on the face of the DCO.
3	The SNS SAC covers an area of 36,951km^2, not 36,715km^2 as stated here.		Noted. This was an error within the assessment. Since the area assessed was smaller than the actual area, the Applicant considers the assessment to be conservative and therefore no additional clarification is required.
4	Although it is correct to say disturbance of harbour porpoise will not exceed 20% of the seasonal component of the site at any one time, the 20%		Modelling has currently been undertaken for a single UXO detonation to be carried out in 24hrs.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix B - Marine Mammals	RAG Status Assigned by NE	Applicant's Comments
	threshold is for disturbance of harbour porpoise in any given day. Therefore detonation of 2 unexploded ordnance (UXO) in a 24 hour period would easily exceed the 20% threshold and disturb harbour porpoise from 32% of the winter area of the site, assuming the 2 UXO detonations are spatially separate from each other. Natural England therefore disagrees with the conclusion drawn in paragraph 512 that there is no significant disturbance or potential adverse effect on the SNS SAC if more than 1 UXO is detonated on any given day. Natural England considers that UXO detonations should be limited to 1 on any given day and this should be secured in the DML.		The assessment was undertaken on the basis of no exceedance of *'20% at any one time'*. The assessment methodology was discussed and agreed through the Evidence Plan process and there were no comments on this either for EIA or HRA in NE's s42 comments. The Applicant notes that the assessment is based upon wording in assessment advice from NE which predates the publication of the updated Conservation Objectives for the SNS SAC in March 2019. In the updated Conservation Objectives the exceedance is based upon "*20% of the relevant area of the site in any given day*". This change in emphasis of the objective was not picked up in the finalisation of the assessment. Using this approach, as is now correct, the Applicant notes that on the basis of the current methodology for assessing noise impacts (i.e. using a 26km effective deterrent range (EDR)), 2 UXO clearance events in a single day would exceed the 20% limit for **the winter area only**. There is no exceedance for the summer area. The Applicant notes NE's request for a condition and makes the following observations. 1) The exceedance is only relevant to the winter area. 2) The Applicant considers that the SIP provides the best and most flexible mechanism to manage this issue. Recent JNCC guidance (see ***Appendix 8*** of this document) *("Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs."* dated 1st June 2020) acknowledges that the EDR for UXO is precautionary. The guidance suggests that the effect footprint may be 1/3 of the area of the monopile effect. Given this uncertainty and the fact that work is ongoing to understand the footprint of these effects, the Applicant considers that it would be over-precautionary to apply a blanket condition given that the SIP allows for adaptive management based upon a) the scheduling of UXO detonation at multiple projects to reduce the total in-combination area of

Point	Taken from NE's Relevant and Written Representations EA2 Appendix B - Marine Mammals	RAG Status Assigned by NE	Applicant's Comments
			disturbance b) noise mitigation which may allow for multiple UXO detonations in one day without exceeding the 20% limit. The precautionary 26km EDR for the high order detonation of unexploded ordnance (UXOs) has been used given that there is no empirical evidence of harbour porpoise avoidance. Given the uncertainty around the actual effect of UXO clearance and the potential to apply at-source mitigation, the Applicant considers that it would be overly precautionary to have a condition limiting it to a single event per day. In addition, the SIP would allow for at source mitigation to reduce the noise footprint, potentially reducing effects below the 20% exceedance for multiple events.
5	As per comment 4 above, the 20% threshold applies to any given day so if 1 piling event disturbs harbour porpoise from 16% of the winter component of the Southern North Sea then 2 piling events on any given day will result in 32% of the SAC winter area being disturbed, therefore exceeding the 20% threshold. Therefore, Natural England disagrees with the conclusion of no significant disturbance and no potential adverse effect on the integrity of the SNS SAC if more than 1 piling event occurs on any given day. Natural England considers piling activities should be limited to 1 on any given day and this should be secured in the DML.		As above, the assessment was undertaken on the basis of no exceedance of *'20% at any one time'*. The Applicant notes that on the basis of the current methodology for assessing noise impacts (i.e. using a 26km effective deterrent range (EDR)), 2 piling events in a single day would exceed the 20% limit **for the winter area only**. There is no exceedance for the summer area. As for UXO, the Applicant notes NE's request for a condition and makes the following observations. 1) The exceedance is only relevant to the winter area. 2) The Applicant considers that the SIP provides the best and most flexible mechanism to manage this issue. Recent JNCC guidance (see ***Appendix 8*** of this document) *("Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs."* dated 1st June 2020) acknowledges that the EDR for pin piles may be much smaller than for monopiles. The guidance suggests that the effect footprint may be 1/3 of the area of the monopile effect. Given this uncertainty and the fact that work is ongoing to understand the footprint of these effects,

Point	Taken from NE's Relevant and Written Representations EA2 Appendix B - Marine Mammals	RAG Status Assigned by NE	Applicant's Comments
			the Applicant considers that it would be over-precautionary to apply a blanket condition given that the SIP allows for adaptive management based upon a) the actual size of piles required and b) noise mitigation which may allow for multiple piling events in one day without exceeding the 20% limit.
6	As per previous comments, if 1 UXO detonation and 1 piling event were to occur on the same given day as described in paragraph 626, the area of the winter component of the SNS SAC that harbour porpoise would be disturbed from would exceed the 20% threshold.		As per previous responses, this is only relevant for the winter area and the Applicant considers that the SIP provides the most flexible and appropriate mechanism for managing potential impacts
7	Figures 9 and 10 do not show the overlap in disturbance figures as described in paragraph 747. Instead they relate to ornithology. Similarly figures 11 and 12 do not show what is described in paragraph 748.		Noted this was a typographic error, the correct figure references in paragraph 747 should be to Figures 12 and 13 and in paragraph 748 should be Figures 14 and 15.
8	Natural England queries how the figure of 5% has been arrived at as an increased collision risk in paragraph 833.		This is explained in ***Chapter 11 Marine Mammals*** (APP-059) ***in section 11.6.1.8 Impact 8: Vessel Interaction (Collision Risk) During Construction***. This rate is precautionary and based upon the percentage of all harbour porpoise post-mortem examinations from the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS area) which are thought to have evidence of interaction with vessels[49]. This approach was presented in the PEIR and draft HRA without comment, and has been used in previous project EIAs and HRAs (e.g. East Anglia THREE)

[49] Evans, P. G., Baines, M.E., and Anderwald, P. (2011). Risk Assessment of Potential Conflicts between Shipping and Cetaceans in the ASCOBANS Region. 18th ASCOBANS Advisory Committee Meeting AC18/Doc.6-04 (S) rev.1 UN Campus, Bonn, Germany, 4-6 May 2011 Dist. 2 May 2011.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix B - Marine Mammals	RAG Status Assigned by NE	Applicant's Comments
9	Natural England notes that it is predicted that a maximum of 11.7% of the grey seal from the Humber Estuary SAC could potentially be temporarily disturbed and overall 18.6% could be disturbed (table 5.79), however we agree with the approach considered by the Applicant of using the context of the wider in-combination reference population and recognising that not all of the impacted seals would be from the Humber Estuary SAC and that therefore the potential level of impact is more likely to be in the region of 3.5% and 5.5% respectively.		Noted.
Document Used: 8.14 Draft Marine Mammal Mitigation Protocol			
10	Natural England notes that additional noise abatement technologies may be subject to additional marine licensing if required and queries whether the Schedule of Agreement described in table 2.1 allows sufficient time to acquire any additional licence(s) and source and implement additional mitigation measures or noise abatement systems that may be required.		Noted. The Schedule is indicative and intended to provide a road map for the process. The In-Principle-SIP will be developed into the SIP post-consent and that will provide the opportunity to address issues such as these if they do indeed arise.
Document Used: 8.17 EA2 In-principle Southern North Sea SAC Site Integrity Plan			
11	The SNS SAC covers an area of 36,951km^2, not 36,715km^2 as stated here.		Noted. This was an error within the assessment. Since the area assessed was smaller than the actual area, the Applicant considers the assessment to be conservative and therefore no additional clarification is required.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix B - Marine Mammals	RAG Status Assigned by NE	Applicant's Comments
12	Natural England welcomes the commitments from the Applicant listed here and considers they should be specifically conditioned on the face of the DML, particularly to ensure there is no concurrent piling between EA1N and EA2. Please see Point 11 in Appendix G.		These commitments are listed in section 6.1 of the ***In-Principle Site Integrity Plan*** (SIP) (APP 594) and other commitments are listed within the draft ***MMMP*** (APP 591). Final versions of the SIP and MMMP must be submitted to and approved by the MMO and must accord with the in-principle/draft plans. It is not considered necessary to include such commitments on the face of the DCO.
13	Natural England notes that additional noise abatement technologies may be subject to additional marine licensing if required and queries whether the Schedule of Agreement described in Table 2.1 allows sufficient time to acquire any additional licence(s) and source and implement additional mitigation measures or noise abatement systems that may be required.		Noted. The Schedule is indicative and intended to provide a road map for the process. The In Principle SIP will be developed into the SIP post-consent and that will provide the opportunity to address issues such as these if they do indeed arise.
14	As per Natural England's previous advice, a mechanism needs to be developed by the regulators to ensure continuing adherence to the statutory nature conservation bodies (SNCB) thresholds over time. Multiple Site Integrity Plans (SIPs) will be developed, piling can take place over several years, and new projects can come online during this time. Should potential exceedance of the thresholds occur, a process for dealing with this issue needs to be in place – the affected developers / industries will need to work together		The Applicant notes NE's concerns, but highlights that the SIP is now the recognised framework by which impacts will be managed cumulatively, having been agreed for the consent of East Anglia THREE in 2017. The SIP provides an adaptive management framework to allow the MMO to regulate underwater noise, with the exact mechanism determined at a point in time where detailed design information is available. SIPs have also been applied retrospectively to projects which were consented prior to the designation of the SNS SAC as part of the Review of Consents process[50].

[50] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/776725/Consultation_details.pdf

Point	Taken from NE's Relevant and Written Representations EA2 Appendix B - Marine Mammals	RAG Status Assigned by NE	Applicant's Comments
	with the regulator and SNCBs to prevent adverse effect on the Southern North Sea Special Area of Conservation (SNS SAC). Until the mechanism by which the SIPs will be managed, monitored and reviewed is developed, Natural England are unable to advise that this approach is sufficient to address the in-combination impacts described below and therefore the risk of Adverse Effect on Integrity (AEOI) on the SNS SAC cannot be fully ruled out.		

4.18.1.3 Terrestrial Ecology

Table 37 Applicant's Comments on Natural England's Relevant Representation (Terrestrial Ecology)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
Document used: 5.3 EA2 Information to Support the Appropriate Assessment Report			
1	Natural England strongly advises that all cable line construction works in the boundary, or within 200m of the Sandlings Special Protection Area and Leiston to Aldeburgh Site of Special Scientific Interest is undertaken outside of the breeding bird season to prevent damage or disturbance (noise, visual and vibration) to designated interest features. This should be included as a condition in the DCO and Code of Construction Practice (COCP). Natural England request consultation on the COCP and suggest that the relevant conservation bodies are included within the document to ensure contact details are accessible if and when required.		The seasonal restriction on construction works associated with crossing the SPA will be included within the SPA crossing method statement and the Breeding Bird Protection Plan which requires to be included within the final Ecological Management Plan to be submitted for approval by the Local Planning Authority in accordance with Requirement 21 of the ***draft DCO*** (APP-023) and on which NE will be consulted. It is noted that the seasonal restriction proposed by the Applicant applies only to works associated with crossing the SPA. This is specifically works associated with crossing the SPA which are within the SPA boundary and works associated with crossing the SPA within 200m of the SPA boundary. As noted within the ***Outline Landscape and Ecological Management Strategy*** (OLEMS) (APP-584), the Applicant will not undertake onshore cable route construction works to cross the Sandlings Special Protection Area (SPA) / Leiston – Aldeburgh Site of Special Scientific Interest (SSSI) within the SPA/SSSI boundary or associated crossing works within 200m of the SPA/SSSI boundary during the breeding bird season unless otherwise agreed with Natural England that bird breeding activities within 200m of the SPA/SSSI crossing works area have ceased. The timing of this seasonal restriction will be based on monitoring information provided by the Ecological Clerk of Work (likely to be mid-February to end of August). The

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
			seasonal restriction will be included within the Ecological Management Plan (EMP) and SPA Crossing Method Statement, secured by Requirement 21 of the ***draft DCO*** (APP-023), which is the appropriate mechanism with which to secure the seasonal restriction. The Applicant does not consider that it is necessary for such a restriction to appear on the face of the DCO. The Applicant considers that the seasonal restriction need only apply to onshore cable route construction works to cross the SPA / SSSI within the boundary, or associated crossing works within 200m during the breeding bird season. The Applicant does not consider it appropriate for onshore cable route construction works within 200m of the boundary of the Sandlings SPA (with the exception of the crossing of the Sandlings SPA) to be undertaken outside the breeding bird season. Should a requirement for works to be undertaken within 200m of the Sandlings SPA during the breeding bird season be identified (with the exception of the crossing of the Sandlings SPA), the Applicant will undertake breeding bird surveys to determine the presence/absence of breeding birds within the work area, and NE will be consulted on this. Based on known breeding bird distribution and habitat requirements, onshore cable corridor work beyond 200m from the SPA crossing area may take place during the breeding season. In order to safeguard breeding individuals from disturbance, a Breeding Bird Protection Plan (BBPP) will be produced as detailed in ***section 6.4*** of the ***OLEMS***. This will be developed post-consent and is secured under Requirement 21 of the ***draft DCO***

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
2	If an open cut trench method is selected habitat restoration should be implemented to compensate and improve supporting habitat lost. Any scrub removed should be reinstated by planting hawthorn and blackthorn. Areas of acid grassland should be created as heathland by ensuring that soil removed is appropriately stored, reinstated and capped with sandy topsoil. Locally sourced heather seed should be sown across the restoration area to recreate pioneer heath. The Applicant should provide information on the areas to be restored and methodology including timescales and species. The applicant should consider opportunities for net gain in improving and extending relevant and supporting habitats. We recommend consultation with the landowner and RSPB is sought regarding restoration works and net gain opportunity.		An ***Outline Landscape and Ecological Management Strategy*** (OLEMS) (APP-584) has been submitted with the application. The OLEMS (APP-584) outlines the requirement for landscape and ecological (including ornithological) mitigation measures that are reflective of the surveys and impact assessment carried out for the onshore infrastructure of the Project. Requirement 14 of the ***draft DCO*** (APP-023), states that a Landscape Management Plan (LMP) and associated work programme must be submitted to and approved by the planning authority before any onshore works can commence. Requirement 15 of the draft DCO then states that all landscaping works must be carried out in accordance with the approved LMP. Requirement 21 of the draft DCO (APP-023), states that an Ecological Management Plan (EMP) (which will include an SPA Crossing Method Statement) must be submitted to and approved by the planning authority in consultation with the relevant statutory nature conservation body, before any onshore works can commence. Both the LMP and the EMP must accord with the OLEMS. The SPA Crossing Method Statement will include mitigation measures specifically relating to the SPA crossing, including habitat restoration. Through submission and approval of the final LMP and EMP, NE can be assured that ecological management and provision of landscaping associated with the construction of the onshore infrastructure will be formally controlled and implemented. The information within these management plans would cover the

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
			species to be promoted, the habitats to be restored and the methodology and timescales in which this would be undertaken. A substantial portion of the open trench crossing is through an area currently utilised as horse paddock. The Applicant will set out proposals for the ongoing use and maintenance of areas of habitat to be reinstated following the potential open-cut trenched SPA crossing. These proposals for reinstatement of habitat within the SPA will be detailed within the EMP and associated SPA Crossing Method Statement. The Applicant notes that if a trenchless technique is selected as the technique to cross the SPA then no opportunities to propose arrangements for the ongoing use and maintenance of areas of habitat restoration within the SPA will be sought by the Applicant, as no habitat will be lost and therefore mitigation will not be required. Regarding Net Gain, in December 2018, Defra consulted on plans to introduce the principle of Net Gain to the Planning System in England. Defra's recent response to consultation[51] affirms their intention to bring forward legislation to mandate Net Gain within the Environment Bill but confirms their position that Nationally Significant Infrastructure Projects (NSIP) and marine developments will remain out of scope of the mandatory requirement in the Environment Bill. There is currently no Net Gain policy applicable to NSIP projects, nor plans for Net Gain to be introduced for NSIP projects through the Environment Bill.

[51] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819823/net-gain-consult-sum-resp.pdf

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
3	Natural England reiterate the preference for HDD under the Sandlings SPA to avoid supporting habitat loss, which will take some time to return to its previous condition. Should HDD be used, sufficient detail on methodology and safeguards to prevent a drilling mud outbreak should be produced. Should a bentonite outbreak occur the HDD document should specify that Natural England will be contacted within 24hours and prior to the commencement of any clean-up operations, as the clean-up may on occasion be more damaging than the outbreak. We advise that an outline bentonite frackout document should be provided during examination for each of the HDD locations		As stated in ***Table 3.2*** of the ***Information to Support Appropriate Assessment Report***, the Applicant's preference is for an open-cut trenching technique to cross the Sandlings SPA. As noted in ***section 22.6.1.1.2*** of ***Chapter 22 Onshore Ecology*** (APP-070), the onshore cable route will cross the Sandlings SPA at its narrowest point, towards the north of the SPA and the Applicant has committed to a reduced onshore cable route working width of 16.1m (reduced from 32m) within the SPA to minimise habitat loss. An open trench crossing will require two trenches to be constructed within a 16.1m swathe, whereas a trenchless technique such as HDD will require 10 bores to be drilled underground within an underground working width of 90m. The Applicant will submit an Ecological Management Plan (EMP) for approval by the LPA in consultation with NE. In accordance with requirement 21 of the DCO this will include a SPA crossing method statement. Additionally, as agreed at a SoCG meeting with NE on the 19th of February 2020, the Applicant will produce an outline SPA Crossing Method Statement to be submitted as early as possible during the Examination period that will provide further details on the methodology to be adopted for an open trench crossing, and for a trenchless technique (such as HDD). The outline SPA Crossing Method Statement will include details on how the risk of bentonite break-out would be reduced and break out contingencies in the event of a bentonite breakout.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
4	Natural England support the seasonal restriction of construction works (outside of the breeding bird season) within the boundary, or 200m outside of the Sandlings SPA to prevent damage or disturbance to designated features of interest. This should be included as a condition in the DCO and COCP. Natural England request consultation on the COCP and suggest that the relevant conservation bodies are included within the document to ensure contact details are accessible when required.		See the response to Point 1 of Terrestrial Ecology which provides the Applicant's position on this matter.
Document used: 5.4 EA2 Consents and Licences Required under other Legislation			
5	Natural England advises that should altered/new proposals be planned within a Site of Scientific Interest (SSSI), which are not currently considered as part of the DCO and Application then an assent may be required under the Wildlife and Countryside Act 1981 (as amended) from Natural England.		Noted.
Document used: 6.1.22 EA2 Environmental Statement Chapter 22 Onshore Ecology			
6	Consideration should be given to Leiston to Aldeburgh SSSI and coastal vegetated shingle in the case of a bentonite or drilling mud outbreak. Information should be provided on engineering design, depth and break out contingencies. This should be provided in the form of outline plan and secured in the DCO/DML		Detailed design of the landfall will be undertaken post consent following pre-construction site investigations and final details will be specified in the landfall construction method statement which requires to be submitted to and approved by the relevant planning authority in accordance with Requirement 13 of the ***draft DCO*** (APP-023).In addition, the Applicant will produce an Outline Landfall Construction Method Statement (to be submitted as early as possible during the examination period) that will provide further details on the trenchless technique to be

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
			adopted at the landfall and will include details on how the risk of bentonite break-out would be reduced and break out contingencies in the event of a bentonite breakout.
7	We advise that all nationally protected species, are considered of at least moderate importance.		The assessment methodology and classification of species' importance levels have been discussed and agreed through the ETG and section 42 process (see ***Appendix 22.1*** of ***Chapter 22 Onshore Ecology*** (APP-070). In considering this comment, the Applicant discovered an error within the assessment presented within ***Chapter 22 Onshore Ecology*** (APP-070) with regard to the importance assigned to some nationally protected species. A review and reassessment of impacts on these misclassified species is being produced within a clarification note which will be submitted as early as possible during the examination.
8	We support the undertaking of pre-construction surveys to confirm the presence and/or absence of otters and water vole. In the event of either or both species being present in pre-construction surveys we refer to our protected species standing advice: https://www.gov.uk/guidance/reptiles-protection-surveys-and-licences.		Noted.
9	Within the Leiston to Aldeburgh SSSI the variety of water bodies and terrestrial habitats provides suitable breeding and hunting areas for many species of dragonfly and damselfly, including the nationally scarce hairy dragonfly *Brachytron pratense*. We advise consideration of this species, as previously requested in Natural England's advice letter dated the 26th March 2019.		The Applicant has committed to undertaking an assessment of impacts upon hairy dragonfly to be submitted and agreed as a clarification note as part of the SoCG process with NE.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
10	Natural England strongly advises that all cable line construction works in the boundary, or within 200m of the Sandlings Special Protection Area SPA and Leiston – Aldeburgh SSSI is undertaken outside of the breeding bird season (1st February to 31st August for woodlark and 1st of April to 31st August for nightjar) to prevent damage or disturbance to designated interest features. This should be included as a condition in the DCO and COCP. Natural England request consultation on the COCP and suggest that the relevant conservation bodies are included within the document to ensure contact details are accessible when required		See the Applicant's response to this comment at Point 1 of Terrestrial Ecology.
11	Natural England welcome the mitigation prescribed for woodland, scrub and trees and encourage the Applicant to incorporate net gain into their strategy. We support the commitment to an aftercare period for all newly planted hedgerow, shelterbelts and woodlands.		See the Applicant's response to Point 32 of Terrestrial Ecology where this comment is also made by NE in respect of the ***OLEMS***.
12	The impact on coastal habitat from bentonite and drilling mud break outs should be considered.		The Applicant will produce an Outline Landfall Construction Method Statement (to be submitted as early as possible during the examination period) that will provide further details on the trenchless technique to be adopted at the landfall. The Outline Landfall Construction Method Statement will include details on how the risk of bentonite break-out would be reduced, the break out contingencies in the event of a bentonite breakout and consideration of potential impacts on coastal habitat from bentonite and drilling fluid breakout.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
13	The Hundred River feeds into Sandlings SPA and we would expect to see an assessment of alternatives to include HDD under this water course and impacts outlined. However, should HDD be used, sufficient detail on methodology and safeguards to prevent a drilling mud outbreak should be produced. Should a bentonite outbreak occur the HDD document should specify that Natural England will be contacted within 24hours and prior to the commencement of any clean-up operations, as the clean-up may on occasion be more damaging than the outbreak. We advise that an outline bentonite frackout document should be provided during examination for each of the HDD locations We welcome the commitment to reinstate and improve habitats.		There is insufficient space at the Hundred River crossing point to accommodate a trenchless (e.g. HDD) solution given the proximity of properties in the immediate vicinity. The Applicant engaged with NE through the Site Selection ETGs to demonstrate that a trenchless crossing of the Hundred River was not a feasible option and Natural England attended a site visit with the Applicant on 21st February 2018 where the feasibility of crossing the Hundred River (and Aldeburgh Road) was discussed. Alternatives to a trenchless solution were presented at that time. Given the Hundred River's narrow width, the preferred crossing technique would be open cut trenching. As per Requirement 22 of the DCO, the Applicant will submit a watercourse crossing statement for approval as part of the final CoCP. In addition, as agreed at a SoCG meeting with NE on the 19th of February 2020, the Applicant will produce an Outline Watercourse Crossing Method Statement (to be submitted as early as possible during the examination period) which will outline the construction technique(s) available to cross the Hundred River and the mitigation measures that will be adopted to reduce the environmental impact of the works..
14 and 15	Any works that directly impact upon badgers should be subject to mitigation, compensation and/or a protected species license from Natural England to avoid an offence under the Wildlife and Countryside Act 1981 (as amended). We refer to the Planning Inspectorates advice note 11 which advises early engagement with Natural England. We advise that an outline plan is provided.		The Applicant has undertaken preliminary micrositing of the onshore infrastructure in order to avoid known badger setts and will undertake pre-construction surveys and ensure final design of the works avoid and mitigate disturbance to badger setts accordingly. There are areas within the Order Limits which can provide mitigation for badgers if required.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
	Mitigation should include micro-siting of cable route to avoid badger setts, and mitigation and compensation as outlined within Natural England standing advice. This should all be included in an outline plan during examination.		As per Requirement 21 of the ***draft DCO*** (APP-023), the Applicant must submit an Ecological Management Plan (EMP) for approval by the LPA in consultation with NE which will include provision for badger mitigation before any onshore works can commence. The final approved EMP must accord with the ***OLEMS*** (APP-584) submitted with the Application.
16	We welcome the mitigation prescribed for bats in principal, but advise that potential impacts to bat habitat should be clearly mapped with roosting, foraging and commuting areas shown in relation to the redline boundary. As consistent with Natural England's previous advice letter the 26th March 2019. The applicant should also consider any in combination impacts with proposed development at Sizewell C and any other foreseeable plans or projects. This should be provided as an outline plan as part of the examination.		***Figure 22.8a-g*** of ***Chapter 22 Onshore Ecology*** (APP-281) details the findings of the bat roost survey and ***Figure 22.7a-f*** (APP-280) details the bat roost and commuting / foraging habitat. The Applicant has agreed through the SoCG process to undertake an assessment of cumulative impacts with the Sizewell C development on roosting, foraging and commuting areas shown in relation to the order limits. This assessment will be undertaken following publication of the Sizewell C application if published during the examination phase of the Project. The assessment was not undertaken in the pre-application stage due to there being insufficient data on the Sizewell C project available to conduct an accurate assessment at the time. However, it should be noted that the CIA was undertaken in accordance with the Planning Inspectorate Advice Note 17 on cumulative assessment. An ***OLEMS*** (APP-584) has been submitted with the Application. The ***OLEMS*** outlines the requirement for landscape and ecological mitigation measures that are reflective of the surveys and impact assessment carried out for the onshore infrastructure

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
			of the Project. The ***OLEMS*** states that bat roost surveys will be undertaken prior to construction. Requirement 21 of the ***draft*** DCO (APP-023), states that an Ecological Management Plan (EMP) must be submitted to and approved by the planning authority in consultation with the relevant statutory nature conservation body, before any onshore works can commence. The EMP must accord with the OLEMS. Through submission and approval of the final EMP, NE can be assured that ecological management associated with the construction of the onshore infrastructure will be formally controlled and implemented.
17	Any works that directly impact upon great crested newts should be subject to mitigation, compensation and/or a protected species license from Natural England to avoid an offence under the Wildlife and Countryside Act 1981 (as amended). We refer to the Planning Inspectorates advice note 11 which advises early engagement with Natural England. Natural England advises that the Applicant approaches us for a Letter of No Impediment as early as possible.		The potential impact on great crested newt is assessed in ***section 22.6.1.10*** of ***Chapter 22 Onshore Ecology*** (APP-070) and concluded a residual impact of minor adverse. An ***OLEMS*** (APP-584) has been submitted with the Application. The ***OLEMS*** outlines the requirement for landscape and ecological (including great crested newt) mitigation measures that are reflective of the surveys and impact assessment carried out for the onshore infrastructure of the Project. Requirement 21 of the ***draft DCO*** (APP-023), states that an Ecological Management Plan (EMP) must be submitted to and approved by the planning authority in consultation with the relevant statutory nature conservation body, before any onshore works can commence. The EMP must accord with the OLEMS. Through submission and approval of the final EMP, NE can be assured that ecological management associated with the

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
			construction of the onshore infrastructure will be formally controlled and implemented.
18	The Environmental Statement confirms suitable habitat within the vicinity of works and highlights the possibility of killing or injuring reptiles as a risk during construction. Natural England advises that reptile surveys are completed prior to construction to quantify potential impacts and to finalise mitigation works. Reptile mitigation should ensure that there is no net loss of local reptile conservation status, by providing sufficient quality, quantity and connectivity of habitat to accommodate the reptile population in the long term, either on site or at an alternative site nearby. We advise that an outline plan is provided as part of the examination.		The potential impact on reptiles is assessed in ***section 22.6.1.11*** of ***Chapter 22 Onshore Ecology*** (APP-070) and concluded a residual impact of minor adverse. An ***OLEMS*** (APP-584) has been submitted with the application. The ***OLEMS*** outlines the requirement for landscape and ecological (including reptile) mitigation measures that are reflective of the surveys and impact assessment carried out for the onshore infrastructure of the Project. Requirement 21 of the ***draft DCO*** (APP-023), states that an Ecological Management Plan (EMP) must be submitted to and approved by the planning authority in consultation with the relevant statutory nature conservation body, before any onshore works can commence. The EMP must accord with the ***OLEMS***. Through submission and approval of the final EMP, NE can be assured that ecological management and provision of landscaping associated with the construction of the onshore infrastructure will be formally controlled and implemented.
Documents used: 6.1.23 EA2 Environmental Statement Chapter 23 Onshore Ornithology			
19	It is Natural England's advice that all cable line construction works within the boundary, or 200m outside of the Sandlings SPA and Leiston – Aldeburgh SSSI are undertaken outside of the breeding bird season (1st February to 31st August for woodlark and 1st of April to 31st August for nightjar) to prevent		See the Applicant's response to this comment at Point 1 of Terrestrial Ecology.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
	damage or disturbance to designated and sensitive interest features. This should be included as a condition in the DCO and CCP. Natural England requests consultation on the CCP and suggest that the relevant conservation bodies are included within the document to ensure contact details are accessible when required.		
20	The open cut trench method of cable installation will result in the temporary loss of supporting habitat, including the breeding sites of turtle dove which are cited as a features of interest for Leiston to Aldeburgh SSSI. We understand that any habitat removed during the period of works will be reinstated, however there is a risk that the required mitigation will not be sufficiently established to provide suitable nesting habitat for the following breeding season. Natural England advises that the 3ha of compensatory turtle dove feeding habitat to be provided should be in place in advance of works. We understand that an HDD technique will avoid the loss of designated habitat and on this basis Natural England expresses a preference for an HDD method.		The Applicant's preference is for an open-cut trenching technique to cross the Sandlings SPA. As noted in ***section 22.6.1.1.2*** of ***Chapter 22 Onshore Ecology*** (APP-070) the onshore cable route will cross the Sandlings SPA at its narrowest point, towards the north of the SPA and the Applicant has committed to a reduced onshore cable route working width of 16.1m (reduced from 32m) within the SPA to minimise habitat loss. A substantial portion of the open trench crossing route through the SPA is through a horse paddock and therefore this area of the habitat is already disturbed by virtue of its current use. The Applicant will update the ***OLEMS*** (APP-584) and Outline SPA Crossing Method Statement with an outline of the timing of habitat creation areas. It is intended that an area within Work No. 14 will be used for turtle dove mitigation, the extent of this area will be dependent on the results of the pre-commencement breeding bird surveys to be undertaken.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
21	The open cut trench method of cable installation will result in the temporary loss of designated and supporting habitat, including the breeding sites of nightingale which is cited as a feature of interest for Leiston to Aldeburgh SSSI. To mitigate impacts, the Applicant proposes the provision of nesting sites for nightingale will be delivered through habitat management within and on the outskirts of the designated sites and in line with BTO habitat management guidelines. This mitigation method will need to be secured in the DCO and clearly set out in an outline habitat management / mitigation plan as there is the potential for the works themselves to be damaging to the designated sites. We advise that any scrub removal is restored with hawthorn and blackthorn. We understand that an HDD technique will avoid the loss of designated habitat and on this basis Natural England expresses a preference for an HDD method.		The Applicant's preference is for an open-cut trenching technique to cross the Sandlings SPA. As noted in ***section 22.6.1.1.2*** of ***Chapter 22 Onshore Ecology*** (APP-070) the onshore cable route will cross Sandlings SPA at its narrowest point, towards the north of the SPA and the Applicant has committed to a reduced onshore cable route working width of 16.1m (reduced from 32m) within the SPA to minimise habitat loss. The Applicant will submit an Outline SPA Crossing Method Statement as early as possible during the examination period. An ***OLEMS*** (APP-584) has been submitted with the application. The ***OLEMS*** outlines the requirement for landscape and ecological (including ornithological) mitigation measures that are reflective of the surveys and impact assessment carried out for the onshore infrastructure of the Project. Requirement 21 of the ***draft DCO*** (APP-023), states that an Ecological Management Plan (EMP) (which will include an SPA Crossing Method Statement) must be submitted to and approved by the planning authority in consultation with the relevant statutory nature conservation body, before any onshore works can commence. The EMP must accord with the OLEMS. The SPA Crossing Method Statement will include mitigation measures specifically relating to the SPA crossing, including habitat restoration. Through submission and approval of the final EMP, NE can be assured that ecological management and provision of landscaping associated with the construction of the onshore infrastructure will be formally controlled and implemented.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
			The Applicant considers that an open-cut trenching method would reduce the impact (particularly for the local community) when compared with a trenchless solutions such as HDD given the shorter timescales, reduced vehicle movements and smaller spatial footprint required.
22	We welcome the inclusion of barn owl mitigation and the commitment to consult with the Suffolk Community Barn Owl Project. We advise that any compensatory habitat is provided in appropriate timescales. And should that mitigation be required with the boundary of any designated site then Natural England must be consulted. This will need to be secured in the DCO and included in an outline management plan.		An ***OLEMS*** (APP-584) has been submitted with the application. The ***OLEMS*** outlines the requirement for landscape and ecological (including barn owl) mitigation measures that are reflective of the surveys and impact assessment carried out for the onshore infrastructure of the Project. Requirement 21 of the ***draft DCO*** (APP-023), states that an Ecological Management Plan (EMP) (which will include an SPA Crossing Method Statement) must be submitted to and approved by the planning authority in consultation with the relevant statutory nature conservation body, before any onshore works can commence. The EMP must accord with the ***OLEMS***. The SPA Crossing Method Statement will include mitigation measures specifically relating to the SPA crossing, including habitat restoration. Through submission and approval of the final EMP, NE can be assured that ecological management and provision of landscaping associated with the construction of the onshore infrastructure will be formally controlled and implemented.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
23	We agree with the necessity of pre-construction surveys prior to any works taking place. If active nests are found, it should be noted that all wild birds, their nests and eggs are afforded legal protection under the Wildlife and Countryside Act 1981 (as amended), and therefore works in the vicinity of the nest may have to be delayed until any chicks have fledged. Or site preparation works need to be agreed upfront with relevant authorities in consultation with Natural England to be locations temporarily unsuitable for nesting. If exclusion or buffer zones are proposed, the size of the exclusion zone should be well researched to reflect the disturbance tolerance level of the species identified and be of a sufficient distance to prevent disturbance (noise, visual and vibration) to nesting birds.		An ***OLEMS*** (APP-584) has been submitted with the application. The ***OLEMS*** outlines the requirement for landscape and ecological (including ornithological) mitigation measures that are reflective of the surveys and impact assessment carried out for the onshore infrastructure of the Project. Requirement 21 of the ***draft DCO*** (APP-023), states that an Ecological Management Plan (EMP) (which will include an SPA Crossing Method Statement) must be submitted to and approved by the planning authority in consultation with the relevant statutory nature conservation body, before any onshore works can commence. The EMP must accord with the OLEMS. The SPA Crossing Method Statement will include mitigation measures specifically relating to the SPA crossing, including habitat restoration. Through submission and approval of the final EMP, NE can be assured that ecological management and provision of landscaping associated with the construction of the onshore infrastructure will be formally controlled and implemented.
24	We support the inclusion of an artificial light emissions management plan, which incorporates measures to minimise light spill following the recommendations regarding birds set out in the Bat Conservation Trust's Artificial Lighting and Wildlife guidance (2014).		As per Requirement 22 of the ***draft DCO*** (APP-023), the Applicant will submit an artificial light emissions management plan for approval by the relevant planning authority as part of the final CoCP. As per Requirement 25 of the ***draft DCO***, an operational artificial light emissions management plan providing details of artificial light emissions during the operation of Work No. 30, including measures to minimise lighting pollution and the hours of lighting,

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
			will require to be submitted to and approved by the relevant planning authority.
Documents used: 6.7 EA2 Onshore Schedule of Mitigation			
25	Monitoring: Natural England notes that detail on monitoring plans is currently lacking and advises that a commitment to post-construction monitoring is made, in particular in the following cases: • 1 year post-completion of turf stripped and grassland areas which have been removed to assess that natural colonisation or reseeding has been successful, and whether additional mitigation works may be required following re-instatement of habitats (see Ref 5.12 in Onshore Schedule of Mitigation), in particular if open cut trenching is used. • 7 years monitoring of hedgerows or until the hedgerows have recovered.		The Applicant notes NE's request for a commitment by the Applicant for 1-year post-completion monitoring of turf stripped and grassland areas which have been removed within the Sandlings SPA; and a commitment that further measures will be implemented to promote the reinstatement where monitoring identifies further measures are required. This request will be discussed with NE through the SoCG process and any agreed changes to the monitoring and reinstatement proposals will be captured in an updated OLEMS and SPA Crossing Method Statement and carried forward to the final EMP and/or LMP (where relevant) for approval by the LPA. Requirement 15 of the ***draft DCO*** (APP-023) requires that any trees or shrubs planted as part of the approved LMP that fail within a period of 5 years (and 10 years at the substation site) must be replanted. The Applicant will discuss hedgerow monitoring further with NE through the SoCG process.
26	We welcome the inclusion of a Soil Management Plan and refer to the DEFRA guidance on soil protection: Construction Code of Practice for the Sustainable Use of Soils on Construction Sites. We advise its use in the design and construction of		Noted. Soil management is detailed in section 8 of the ***Outline Code of Construction Practice*** (APP-578).

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
	development, including any planning conditions. Should the development proceed, we advise that the Applicant uses an appropriately experienced soil specialist to advise on, and supervise soil handling, including identifying when soils are dry enough to be handled and how to make the best use of soils on site.		
27	Natural England welcomes the preparation of a project specific Pollution Prevention and Response Plan and advises that we are consulted within 24 hours should there be a pollution incident within or in proximity to a designated site. We also advise that SNCBs, including Natural England are listed as consultees. This should be agreed in outline as part of the examination.		The Applicant will ensure that if a pollution incident occurs within a designated site or which may affect a designated site that NE will be consulted within 24 hours of the incident being detected. This commitment will be captured within an updated version of the ***Outline Code of Construction Practice*** (APP-578) prepared during the Examination. The relevant planning authority is considered to be the appropriate approval body for the final Code of Construction Practice (which includes the Pollution Prevention and Control Plan). An updated ***Outline Code of Construction Practice*** (APP-578) to be produced during Examination will confirm that the Applicant will consult NE during the preparation of the Pollution Prevention and Control Plan.
28	Natural England welcomes the preparation of a project specific Noise and Vibration Management Plan. We also advise that SNCBs, including Natural England are listed as consultees. This should be agreed in outline as part of the examination		The relevant planning authority is considered to be the appropriate approval body for the outline Code of Construction Practice (which includes the construction phase noise and vibration management plan). Further clarity is sought regarding the geographic extent of NE's interest in the noise and vibration management plan but in any event an updated ***Outline Code of Construction Practice*** (APP-578) to be produced during

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
			Examination will confirm that the Applicant will consult NE during the preparation of the Noise and Vibration Management Plan.
29	Natural England supports the seasonal restriction of construction works (outside of the breeding bird season; 1st February to 31st August for woodlark and 1st of April to 31st August for nightjar) within the boundary, or 200m outside of the Sandlings SPA to prevent damage or disturbance to designated features of interest. This should be included as a condition in the DCO and COCP. Natural England request consultation on the COCP and suggest that the relevant conservation bodies are included within the document to ensure contact details are accessible if and when required.		See the response to Point 1 which provides the Applicant's position on this matter.
30	Natural England requests that Statutory Nature Conservation Bodies (SNCBs) including Natural England are consulted on the Ecological Management Plan. And that this is included in outline as part of the examination.		Requirement 21 of the ***draft DCO*** (APP-023), states that an EMP must be submitted to and approved by the planning authority in consultation with the relevant statutory nature conservation body, before any onshore works can commence. An ***OLEMS*** (APP-584) has been submitted with the application. The ***OLEMS*** outlines the requirement for landscape and ecological mitigation measures that are reflective of the surveys and impact assessment carried out for the onshore infrastructure of the Project. Requirement 21 states that the final EMP must accord with the ***OLEMS***.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
31	We agree with the necessity of pre-construction surveys prior to any works taking place. If active nests are found, it should be noted that all wild birds, their nests and eggs are afforded legal protection under the Wildlife and Countryside Act 1981 (as amended), and therefore works in the vicinity of the nest may have to be delayed until any chicks have fledged. Or site preparation works need to be agreed upfront with relevant authorities in consultation with Natural England to be locations temporarily unsuitable for nesting. If exclusion or buffer zones are proposed, the size of the exclusion zone should be well researched to reflect the disturbance tolerance level of the species identified and be of a sufficient distance to prevent disturbance to nesting birds.		An ***OLEMS*** (APP-584) has been submitted with the application. The ***OLEMS*** outlines the requirement for landscape and ecological (including ornithological) mitigation measures that are reflective of the surveys and impact assessment carried out for the onshore infrastructure of the Project. Requirement 21 of the ***draft DCO*** (APP-023), states that an Ecological Management Plan (EMP) (which will include a Breeding Bird Protection Plan) must be submitted to and approved by the planning authority in consultation with the relevant statutory nature conservation body, before any onshore works can commence. The EMP must accord with the ***OLEMS***. Through submission and approval of the final EMP, NE can be assured that ecological management and provision of landscaping associated with the construction of the onshore infrastructure will be formally controlled and implemented.
Documents used: 8.7 EA2 Outline Landscape and Ecological Management Strategy			
32	Natural England welcomes the mitigation prescribed for woodland, scrub and trees and encourage the Applicant to incorporate net gain into their strategy. We support the commitment to an aftercare period for all newly planted hedgerow, shelterbelts and woodlands. Natural England advises that:		Noted. The Applicant is currently in discussion with NE through the SoCG process regarding NE's expectations for hedgerow management. Regarding Net Gain, in December 2018, Defra consulted on plans to introduce the principle of Net Gain to the Planning System in England. Defra's recent response to consultation[52] affirms their intention to bring forward legislation to mandate Net

[52] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819823/net-gain-consult-sum-resp.pdf

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
	• Replacement of hedgerows should be in line with Suffolk Biodiversity Partnership BAP Priority Habitat guidance; • Post-construction monitoring should be undertaken for 7 years or until the hedgerows have recovered • Mature hedgerows plants should be used to fill gaps to reduce time required for gapping up. • Replanting should follow in the first winter after construction. • Subject to landowner permissions, those hedgerows should be left to become overgrown either side of the section to be removed prior to construction. • Hedges should be double-planted with 2m grassland strips or rough grassland / scrub on both sides so there is always a leeward side to forage. A Hedgerow Mitigation Plan should be developed in consultation with Natural England prior to the removal of hedgerows. This mitigation plan should be included within Ecological Management Plan, Landscape Management Plan or OLEMS as appropriate		Gain within the Environment Bill but confirms their position that Nationally Significant Infrastructure Projects (NSIP) and marine developments will remain out of scope of the mandatory requirement in the Environment Bill. There is currently no Net Gain policy applicable to NSIP projects, nor plans for Net Gain to be introduced for NSIP projects through the Environment Bill.
33	We support the engagement of an ecologist when undertaking maintenance works to assess impacts to protected species, breeding birds, designated sites and features to provide guidance on appropriate mitigation.		Noted. As stated in ***section 8*** of the ***OLEMS*** (APP-584): *During any required inspections and/or routine maintenance work, best practice procedures would be followed and be in accordance with the relevant standards at that time. If intrusive works were required at any point, an ecologist would be*

Point	Taken from NE's Relevant and Written Representations EA2 Appendix C - Terrestrial Ecology	RAG Status Assigned by NE	Applicant's Comments
			contacted to assess whether there are any impacts associated with the work, before that work can proceed.
34	Natural England requests that Statutory Nature Conservation Bodies (SNCBs) including Natural England are consulted on the Ecological Management Plan.		Requirement 21 of the ***draft DCO*** (APP-023) states that the EMP will be approved by the LPA in consultation with the relevant SNCB.

4.18.1.4 Landscape and Visual Impact Assessment

Table 38 Applicant's Comments on Natural England's Relevant Representation (Landscape and Visual Impact Assessment)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix D - LVIA – Terrestrial aspects of the project	RAG Status Assigned by NE	Applicant's Comments
Document Used: 6.1.29 EA2 Environmental Statement Chapter 29 Landscape and Visual Impact Assessment			
1	A vital mitigation measure, should both projects be approved, is for the onshore cabling to be installed for both simultaneously and not sequentially. The former will restrict construction phase impacts to the short term, but the latter would produce medium term impacts on the AONB. The Applicant discusses some ducting possibly being installed to accommodate both schemes when one is being constructed, but 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 East Anglia TWO and East Anglia ONE North projects are being developed by two separate companies, are two separate projects and will have two separate Development Consent Order consents. The assessment presented in the ES assesses the impacts of the Project, through the use of appropriate assessment scenarios, cumulatively with the East Anglia ONE North project. The determining factor in which construction scenario is adopted will be the outcome of the Contract for Difference (CfD) auction and subsequent financing arrangements for each project. It is clear that the UK Government is continuing to drive the offshore wind sector to reduce costs – a challenge that the offshore wind sector has been and is continuing to embrace. This downward pressure will continue into future CfD auctions which both Projects are expected to compete in. This drive to reduce costs represents a significant challenge for the offshore wind sector to reduce construction costs and is likely to result in only the most competitive projects securing finance and proceeding to construction. Acknowledging the extremely competitive market, in order to ensure the capital cost of both Projects are as competitive as possible, each project must bear its own construction cost. Therefore, in the event

Point	Taken from NE's Relevant and Written Representations EA2 Appendix D - LVIA – Terrestrial aspects of the project	RAG Status Assigned by NE	Applicant's Comments
			that financing is not secured for both projects in parallel, the financed project cannot carry the significant cost of the duct installation for the other unfinanced project, as this would make the financed project less competitive and potentially jeopardising its ability to secure a CfD and financing in its own right.
2	We believe that more information concerning the schedule for the undergrounding works within and in the immediate setting of the AONB is warranted, covering both the topsoil stripping/trenching (and HDD if relevant) and backfilling/reinstatement of the cable route. We would therefore like to see an anticipated timetable / schedule for how construction activities would progress along the cable route within and in the immediate setting of the AONB, what construction consolidation sites and associated or other construction infrastructure and equipment would be present and how long after commencement all signs of active construction activity would be removed from the AONB. This information would complement the stated expectation that the landfall construction site and infrastructure for each scheme being present for twenty months.		The Applicant 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. These decisions will be made as a result of the supply chain engagement and procurement process that would commence post consent and which would provide the information necessary to effectively plan the construction works in line with the DCO requirements. ***Section 6.10*** in ***Chapter 6 Project Description*** (APP-054) provides an indicative construction plan. ***Plate 6.32*** illustrates an indicative onshore cable route construction sequence and timing, that shows approximate timings for removal of CCS and welfare, site clearance and reduction in working areas. The full specification for the construction phase will be addressed as part of detailed design, post-consent once a contractor is appointed for implementation.
3	Natural England welcomes the assessment of cumulative impacts of the EA1N and EA2 OWFs with the construction and operational phases of Sizewell C nuclear power plant. In addition to the outlined mitigation to reinstate the landscape character and special qualities of the AONB		As mentioned above, there is no policy requirement to deliver Net Gain for NSIP projects such as the Projects. An ***OLEMS*** (APP-584) has been submitted with the application. The ***OLEMS*** outlines the requirement for landscape mitigation measures that are reflective of

Point	Taken from NE's Relevant and Written Representations EA2 Appendix D - LVIA – Terrestrial aspects of the project	RAG Status Assigned by NE	Applicant's Comments
	post-construction, Natural England advises that all parties consider landscape enhancement/net gain opportunities within the AONB. We advise that there is an agreement put in place on how this could be achieved with the AONB partnership in consultation with Natural England and others.		the surveys and impact assessment carried out for the onshore infrastructure of the Project. Requirement 14 of the ***draft DCO*** (APP-023), states that a Landscape Management Plan (LMP) and associated work programme must be submitted to and approved by the planning authority before any onshore works can commence. Requirement 15 of the draft DCO then states that all landscaping works must be carried out in accordance with the approved LMP. The Applicant will continue to consult with EDF Energy regarding the Sizewell C development as the examination phase of the Project progresses. Through submission and approval of the final LMP, NE can be assured that provision of landscape works associated with the construction of the onshore infrastructure will be formally controlled and implemented.

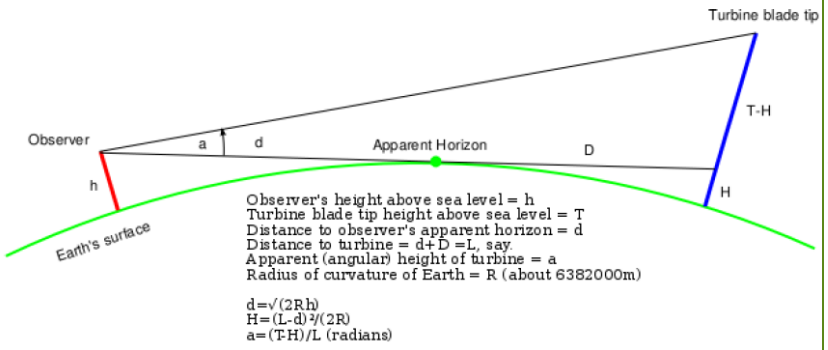
4.18.1.5 Seascape Landscape and Visual Impact Assessment

Table 39 Applicant's Comments on Natural England's Relevant Representation (Seascape, Landscape and Visual Impact Assessment)

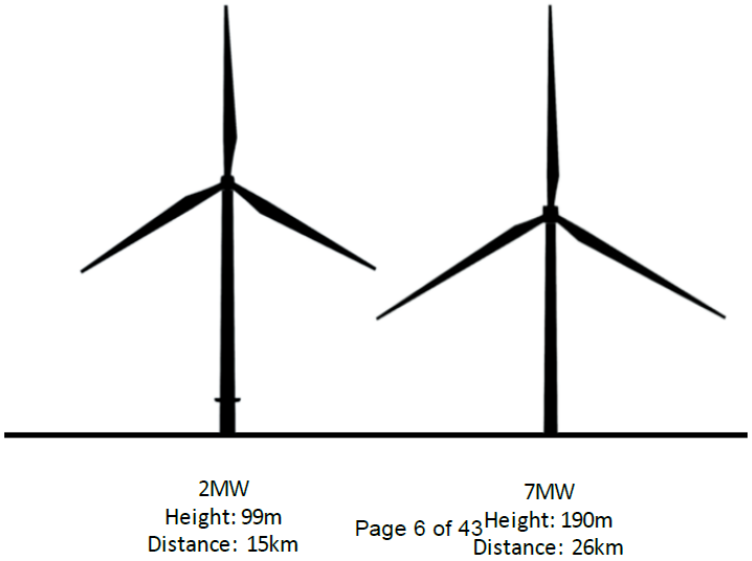
Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
Section 1 – Summary of Comments		
Natural England agrees that:		
NE-i	300m turbines at the internal separation distances stated represent the worst case scenario for landscape and visual effects.	This agreement on the worst-case scenario is noted by the Applicant.
NE-ii	The reduced lateral spread of the redesigned layout of EA2 will reduce the magnitude of effects for landscape and visual receptors located in the AONB.	The Applicant notes agreement that the reduced lateral spread of the redesigned layout of the Project windfarm site will reduce the magnitude of change for landscape and visual receptors located in the AONB.
NE-iii	Despite the reduction in lateral spread significant adverse effects on landscape and visual receptors located in the northern portion of the AONB are still predicted to occur.	This agreement on the significant effects on landscape and visual receptors in the northern part of the AONB is noted by the Applicant.
NE-iv	These significant landscape and visual effects will adversely affect the special qualities of the AONB.	Please refer to the Applicant's response on AONB Special Qualities at NE-3.8.1 to 3.8.7.
NE-v	These significant landscape and visual effects will be restricted to coastal landscapes and viewpoints within the AONB.	The Applicant notes agreement that significant landscape and visual effects will be restricted to coastal landscapes and viewpoints within the AONB.
NE-vi	The assessment of cumulative effects with EA1N is correct.	The Applicant notes agreement that the assessment of cumulative effects with East Anglia ONE North have been adequately and appropriately described within the SLVIA.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
Natural England have the following concerns:		
NE-vii	How the NPS requirements for 'good design' have been applied.	Please refer to the Applicant's response on 'good design' at NE-3.1.1.
NE-viii	Although the minimal proximity distance to the coast has been increased to 32km the average minimal distance from the coast of the northern portion of the AONB remains the same as that stated in the PEIR.	Please refer to the Applicant's response on separation distance from the coast at NE-3.3.4.
NE-ix	That the night time effects of navigational lighting have still not been assessed for rural locations.	Please refer to the Applicant's response on night-time effects of aviation lighting at NE-3.4.1.
NE-x	The lack of an assessment of landscape effects for LCT 29.	Please refer to the Applicant's response on LCT 29 at NE-3.7.4
NE-xi	That the significance of effects on the special qualities of the AONB have been underestimated.	Please refer to the Applicant's response on AONB Special Qualities at NE-3.8.1 to 3.8.7.
NE-xii	The conclusions of the visual assessment for viewpoint 10 and the section 07 of the Suffolk Coast Path are incorrect.	Please refer to the Applicant's response on Viewpoint 10 and Section 07 of the SCP at NE-3.9.2 and NE-3.10.1.
Section 2 – Note about visible height of offshore wind turbines in respect of East Anglia TWO		
NE-2.1	In our response to the PEIR for the s42 consultation (March 2019) we included the following Natural England observations on the increase in turbine size which has taken place over the past 15 years and the proximity of these structures to the coastlines of designated landscapes, entitled 'Turbine height and proximity to the coastline of a designated landscape' *'…The last 10 years has witnessed a significant upscaling of the technology used in the offshore wind farms. Within this time turbines have dramatically increased both in output capacity and size from the*	NE's observations are noted by the Applicant. As noted by NE, the upscaling of the turbine technology used for offshore wind farms, in terms of capacity and size, is part of wider trend towards more efficient turbines with larger rotor diameters in the wind energy sector and is not unique to the Project. This trend is part of the need to make offshore windfarms economically competitive in the energy markets, to meet government targets for renewables, maximise energy gain,

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	3.6MW machines of 132m height (Sheringham Shoal, Norfolk Coast AONB, closest point 17km) to 6.3MW machines of 181m height (Galloper, Suffolk Coast and Heaths AONB; closest point 29.3km) to the emerging industry 'standard' of 15MW machines of 300m height as proposed for EA2 (closest point 29.6km); capacity has increased nearly fourfold and size more than doubled. When viewed from the same location, the bigger the structure the greater it's visual prominence. Similarly the bigger the structure the greater the distance (and geographic spread) from which it can be seen. In defining our comments to this scheme Natural England has been mindful of these facts and where appropriate has drawn comparisons between previously consented schemes located in the seascape setting of a designated landscape and EA2 to illustrate the likely influence of this upscaling in technology…'	increased capacities and efficiencies, and contribute towards meeting climate change targets set out in legislation and Government policy. The Applicant notes that the Project windfarm site is now located 32.5km from the AONB at its closest point (and not 29.6km as quoted here by NE).
NE-2.2	Since providing these comments we have undertaken further sites visits and analysis to illustrate this point further. The information and evidence gathered is presented below. We have done so in order to provide some evidence which compares the effect of existing offshore arrays, noting that for these schemes none of the actual visual effects were considered significant at the time of determination, with those proposed for EA2. The predicted landscape and visual effects of EA2, as presented in the ES SLVIA, are judged to be significant for the majority of the Suffolk Coast and Heath AONB coastline, from the most northerly point southwards to Orford Ness, a distance of at least 35km.	NE's further information and analysis are noted by the Applicant. The Applicant notes some limitations in this evidence, which is explored further against each point as follows. The SLVIA identifies significant effects from the northerly part of the AONB coastline, approximately between Covehithe in the north and Aldeburgh/Orford Ness in the south, however this does not represent the majority of the AONB as whole, with areas of the AONB away from the coast, and to the south of Orford Ness, unlikely to be subject to significant effects. The 35km section of coastline referred to is geographically focused along the immediate coastal edge landscape of the AONB.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
NE-2.3	Our analysis is based upon the established method for calculating the visible height of structures offshore. This method is set out in the Scottish Natural Heritage in their 2017 publication 'Visual Representation of Wind Farms Guidance 2.2'. A diagrammatic representation is shown below for the simplified case when atmospheric refraction is ignored. **Figure 1: Visibility** 	The method included in SNH's Visual Representation of Wind Farms Guidance 2.2' (SNH, 2017)[53] is for calculating the effect of earth curvature in Zones of Theoretical Visibility (ZTVs), rather than for specifically calculating the visible height of structures offshore. As recommended in the guidance, the effect of earth curvature is included in the ZTV calculations presented in the SLVIA (Figures 28.15 - 28.19 (APP-329 to APP-344)). The Applicant notes and agrees with the vertical difference in visibility of offshore structures introduced by earth curvature and the diagrammatic representation shown in Figure 1, however would note that Figure 1 is not itself presented in the SNH guidance. The figure NE have referred to is taken from the challenge Navitus website[54].
NE-2.4	Due to the distances involved and heights of the structures, the effect of Earth's curvature on the visible heights is a critical factor in determining the significance of the landscape and visual impacts, as are the distances to the turbines and the elevation from which the turbines are viewed. This method provides the necessary corrections for Earth's curvature and results in the apparent, or angular (a), height of a turbine as seen by an observer. Therefore it is possible to compare the apparent height of a 134m turbine located at 25km away	The Applicant would agree that the effect of Earth's curvature on apparent height can be a factor in the visibility of offshore wind turbines and this is accounted for in the SLVIA and visual representations included in the ES. The necessary corrections for Earth's curvature are made in the ES, in the ZTVs (***Figures 28.15 - 28.19*** (APP-329 to APP-344)) and wireline visualisations (***Figures 28.25 - 28.54*** (APP-355 to APP-384)) in the SLVIA.

[53] Scottish Natural Heritage (2017) Visual Representation of Windfarms. Version 2.2
[54] http://www.challengenavitus.org.uk/photo-montages.html

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	to that of a 182m turbine located at 29km. This in turn can be used to predict the apparent height of (the not yet built) 300m turbines at 32.6km, as used in the EA2 worst case scenario. As the effects of the former are known, their visual influence can be used to judge the likely effect of the latter when viewed from similar elevations. **Figure 2 Comparative height of turbines**  	The effect of earth curvature was not in itself, a critical factor in determining the effect of the closest turbines. Assuming a 300m blade tip height, it is only a relatively small portion of the lower towers (34m) that would be hidden behind the apparent horizon, with the closest turbines having an apparent height of 266m at 32.6km (closest representative viewpoint) (eye level 6.5m). The effect of earth curvature on turbines located within the more distant parts of the Project windfarm site will be more pronounced, with increased screening of the lower parts of the turbine towers behind the apparent horizon. For example, the apparent height of turbines at 40km (roughly in the middle of the windfarm site) will be 239m; and the apparent height of turbines at 50km (near the outer parts of the windfarm site) will be 191m. The Applicant notes that it can be useful to provide comparisons between the apparent height of the turbines with existing offshore wind turbines, such as those at Galloper and Greater Gabbard, as a scale reference to assist in the judgement of visual influence. The existing Ness Point turbine at Lowestoft is also a useful scale reference in some views. While the comparison of turbine height in Figure 2 (left), is useful as a diagrammatic illustration, it is not representative of the scale of the turbines when viewed from coastal viewpoints of the study area; nor representative of the true relationship of the Project with the existing offshore turbines at Galloper and Greater Gabbard, which are not viewed directly next to each other in the way presented in Figure 2. The apparent scale differences will not, in reality, be viewed in this very direct way presented in Figure 2, as there is physical separation between layouts on

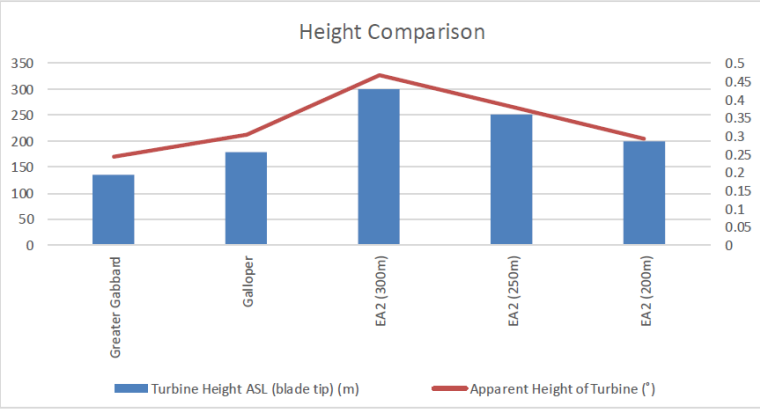
Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		the horizon, which means that the scale comparisons will be more subtle than indicated in this image. The scale of the Project turbines is best appreciated at the viewpoints with reference to the photomontages included in the SLVIA (***Figures 28.25 – 28.54*** (APP-355 to APP-384)). If viewed correctly at the correct printed image size, these provide a close representation of the vertical scale of turbines in actual viewpoints. The Applicant considers that the wireline visualisations presented in the SLVIA (***Figures 28.25 - 28.54*** (APP-355 to APP-384)) are the best tool to understand the scale relationship with other offshore wind turbines. There is also the factor that increased distance inevitably results in some lessening of the turbine visibility from the shore due to atmospheric conditions, so they are not directly comparable in terms of their relative magnitude of change, only relative height.
NE-2.5 to NE-2.8	The results of this analysis are presented here for an observer whose eye level is 6.5m AOD, which is representative of shoreline heights for the distance offshore figures used i.e. at Covehithe and Orford Ness. As per best practice the small "correction" for atmospheric refraction was set at 0.075 as suggested by the SNH guidance, but please note that for long-distance views across water this "correction" is unreliable and there precaution is required. Due to having incomplete data we have used heights Above Ordnance Datum (AOD) as a close approximation to heights Astronomical Sea Level (ASL). **Table 1: Turbine Visibility**	While the tabular analysis of apparent height may be a useful tool for comparing the apparent height of turbines from the closest point of the coast to each offshore windfarm, the Applicant notes that there are limitations in the analysis presented. The Applicant considers that judgements on significance should properly be based on the assessment material provided in the ES which have been undertaken in accordance with best practice guidance (GLVIA3). There is no established guidance which reduces seascape, landscape and visual assessment to a quantitative assessment of values in a tabular matrix, such as Table 1, which is over simplistic.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments

Array	Distance offshore (km)	Turbine Height ASL (blade tip) (m)	Visible Height (m)	Apparent Height of Turbine (˚)
Greater Gabbard	24.8	134	**115**	**0.275**
Galloper	28.9	180	**155**	**0.309**
EA2 (300m)	32.6	300	**266**	**0.467**
EA2 (250m)	32.6	250	**216**	**0.379**
EA2 (200m)	32.6	200	**166**	**0.291**

Also listed are calculations for 200m turbines located at 32.6km offshore in order to show the predicted visible and apparent heights for such turbines.

Figure 3: Height Comparison



It is recognised in GLVIA3 that *'assessing visual effects is not a quantitative process'* (para 6.3) and that *'While there is some scope for quantitative measurement of some relatively objective matters… much of the assessment must rely on qualitative judgement about the significance of change'* (para 2.23). Variations in the apparent height of turbines between different viewpoints are incorporated in the Applicant's visual assessment in the SLVIA together with appropriate consideration of other criteria informing magnitude of change and sensitivity to change, to inform judgements on significance of effect. Differences in apparent height of the turbines, together with other aspects of the appearance of the windfarm site, are shown clearly in the visualisations (***Figures 28.25 – 28.54*** (APP-355 to APP-380)) in the landscape/seascape context of each viewpoint.

The vertical scale of the Project turbines is best appreciated during field evaluation at the viewpoints with reference to the material provided in the ES, particularly the photomontages included in the SLVIA (***Figures 28.25 – 28.54*** (APP-355 to APP-380)). If viewed correctly at the correct printed image size, at the actual viewpoint location in the field, these provide a close representation of the vertical scale of turbines viewed from actual viewpoints.

With regard to Table 1, the Applicant considers that the last column shows the apparent vertical angle (in degrees) taken up by the closest turbine, which is not the equivalent of height as it measures the vertical angle (in degrees) between the observer, upwards to the tip of the turbine.

It is notable that there may be up to around 180˚ vertical angle of sky visible to an observer from open locations along the coast, over which the turbines may occupy a very small vertical angle, i.e. less than 0.5 vertical

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	In order to compare 'like with like' the predicted apparent height figures for Galloper and Great Gabbard arrays can be used to inform the determination of the EA2 application, with Galloper being the largest of these (Figure 3). As these figures show for 300m turbines located at 32.6km distance, the apparent height of these turbines would be around 1.54 times greater than those for the Galloper array. This figure has been calculated using the data in the 'Apparent height of the visible turbine' column of Table 1 above. See the diagrammatic representation of the geometry above for an illustration of this angle (a) (Figure 3).	degrees of this arc, consisting a very small proportion occurring at its very edge near the horizon. In the theoretical example provided in Table 1, the difference in apparent height between East Anglia TWO (300m) and Greater Gabbard is only 0.192˚ and Galloper 0.158˚ of the vertical field of view. This is a very small difference in vertical angle (less than 0.2˚). The analysis in Table 1 relies on one observer height (eye level) set at 6.5m. In reality, this observer height will vary considerably between viewpoints along the coastline depending on their height Above Ordnance Datum (AOD). Several of the LVIA viewpoints representing the lower lying strip of coastal dunes and shingle of the AONB have a lower observer height, where the visible height of the turbines would be less than identified in Table 1. The analysis in Table 1 uses the closest distance offshore of each windfarm and compares the visible height/apparent height of each based on this closest distance. In reality, these distances to each offshore windfarm vary from different viewpoints along the coast. They will rarely, if ever, actually all be seen at their closest distance offshore from the same viewpoint, or therefore at their maximum apparent height simultaneously. Each windfarm will actually be viewed at varying distances and varying apparent heights (and not at their maximum apparent height) depending on the viewpoint position. Viewpoints from the northern part of the AONB coastline, where the Project is closest, are located at greater distance from Greater Gabbard and Galloper. Although the apparent height difference would be expected

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		to be greater from this northern area of the AONB, than presented in Table 1, in reality there is limited visibility of Galloper and Greater Gabbard from viewpoints in the northern part of the AONB due to their distance from these existing windfarms and atmospheric restrictions on visibility at such range (e.g. over 42km from Southwold and increasing northwards). The analysis in Table 1 does not factor the influence of atmospheric visibility conditions on visual influence at long distance. The apparent vertical angle difference might be expected to be most notable where viewpoints are roughly equidistant, where each offshore windfarm is at comparable distance to the coast, or where the Project is slightly closer but Galloper and Greater Gabbard are visible. This would generally be between Dunwich Heath / Minsmere to Aldeburgh / northern part of Orford Ness. In viewpoints from the southern part of the AONB, from Orford Ness southward, such as from Orford Ness Lighthouse (Vp18), Shingle Street (Vp15) and Bawdsey (Vp16), the apparent height of the Project turbines would actually be similar to, or less than the Greater Gabbard and Galloper turbines, as illustrated in the wirelines in ***Figures 28.39b*** (APP-369), ***28.40b*** (APP-370) and ***28.42b*** (APP-372) of the SLVIA. In many of the AONB viewpoints from Thorpeness southwards, the apparent height of the Project (300m) and Galloper turbines is nearly identical, with very small margins of difference. In several of these 'southern' AONB viewpoints, the apparent height of Greater Gabbard turbines will actually be greater than the Project (300m) e.g. Viewpoint 15 (Bawdsey), Viewpoint 16 (Shingle Street) and Viewpoint 18 (Orford Ness).

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		The analysis in Table 1 only considers the apparent height of the closest visible turbine in the array. It does not allow for variations in visible height/apparent height that will actually occur between different turbines in the arrays, depending on their distance offshore. Turbines located at greater distance offshore within each windfarm site, will have a lower visible height and less apparent height difference, creating variations and similarities in scale/apparent height between windfarms depending on distance of turbines offshore. The Applicant considers that there are limitations in the analysis in Table 1, as set out above, which raise questions about the applicability of the finding that the apparent height of 300m turbines *'would be around 1.54 times greater than those for the Galloper array'.* This may be the case in the theoretical example provided form the closest point of the coast to each windfarm, however as this is based only on the closest distance of each windfarm offshore, it cannot be wholly representative of the variations and similarities in apparent height that will actually occur from different viewpoints in the study area, which are accounted for in the Applicant's visual assessment and shown clearly in the wireline visualisations (***Figures 28.25 – 28.54*** (APP-355 to APP-384)). The Applicant's own analysis of vertical angle from different viewpoints has identified that in all of the AONB viewpoints, the Project (300m) will have a lower vertical angle than the 0.467˚ identified by NE in the theoretical example in Table 1. From representative viewpoints within the AONB, the vertical angle ranges between a maximum 0.462˚ at Southwold (Viewpoint 4) to a minimum 0.218˚ at Bawdsey (Viewpoint 16).

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
NE-2.9	The SLVIAs for the Galloper and Great Gabbard OWFs all judged that significant visual effects would not occur at their respective minimum separation distances from the coastline of the AONB (see table above). The chart indicates that for the Suffolk coast non-significant effects are likely to occur at apparent heights below 0.350˚ (a conclusion supported by the EA1N SLVIA) with significant effects confirmed for apparent heights above 0.400˚. However, the horizontal spread of an array and the number of turbines visible are also important factors in reaching this judgement. Note also that 200m turbines at distances of 32.6km would result in similar visible effects to that created by the Galloper OWF i.e. not significant, although for Galloper the lateral spread is small. Figure 28.21c from the Environmental statement helpfully illustrates the relative positions of these arrays.	As identified above, the Applicant considers that judgements on significance should properly be based on the assessment material provided in the ES and not on the quantitative assessment of vertical angle values or separation distance. Variations in the apparent height and distance of turbines between different viewpoints are incorporated in the Applicant's visual assessment in the SLVIA and shown clearly in the wireline visualisations (***Figures 28.25 – 28.54*** (APP-355 to APP-384)). The Applicant notes that the effects of Galloper and Greater Gabbard were judged to be not significant at their respective minimum separation distances, and would concur that they are generally not significant, although would note that there are particular locations, such as Orford Ness, where this is a finely balanced judgment near the threshold of significance. Galloper and Greater Gabbard do form notable features and introduce clutter on the sea skyline in views from parts of the AONB and this is noted in the AONB special qualities report. The Applicant is not fully clear whether NE considers that the Greater Gabbard and Galloper ES were correct in this assessment of not significant. The maximum apparent height for East Anglia ONE North is 0.37˚ from Lowestoft (Vp1), from where non-significant effects were identified. The assessment contained in the SLVIA acknowledges the significance of visual effects of the Project windfarm site in views from the closest section of the AONB coastline, however it considers that the horizontal spread of turbines is the primary factor in reaching this judgement, rather than the apparent height.

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		An apparent height of 0.467˚ (as calculated for 300m turbines at 32.6km at the closest representative viewpoint) is a relatively small apparent height compared to other offshore windfarms. There are many examples of operational offshore wind turbines that have vertical angle apparent heights well in excess of this, often when located at much closer range. Examples relatively nearby off the Norfolk coast include Scroby Sands (100m blade tip), located in the northern part of the study area, which has an apparent height of 1.85˚ in the view from the closest section of coast near Caister-on-Sea; and Gunfleet Sands (129m – 144m blade tip) off the Essex coast has an apparent height of 1.1˚ in the view from the closest section of coast at Clacton-on-Sea. Although these turbines have a lower blade tip height, they have a larger apparent height than the Project turbines at 300m blade tip, because they are located in closer proximity to the coast. There are also several examples of operational wind turbines located offshore from nationally designated landscapes that have similar or larger apparent vertical angle heights than the Project (i.e. in excess of 0.467˚ as calculated by NE for 300m turbines at 32.6km), as follows: • Rampion Offshore Wind Farm consists of 116 x 140m blade tip turbines located approximately 14.4km from the South Downs National Park (at its closest point), where the closest turbines would have an apparent height of approximately 0.51˚. • Burbo Bank Extension consists of 32 x 190m blade tip turbines located approximately 14.6km from the Clwydian Range AONB (at its closest point), where the closest turbines would have an apparent height of approximately 0.73˚.

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		The Applicant considers that the apparent height angles for the 300m and 250m Project turbines are actually very small, at less than 0.5˚ and 0.4˚ respectively, compared to other consented and operational windfarms (as a factor of its distance offshore), and are comparable to or less than other windfarms located offshore from nationally designated landscapes. An apparent height difference of 0.158˚ above the apparent height of Galloper is an even smaller order of difference in vertical angle, which is not a marked difference in scale, and is unlikely to be readily apparent to the viewer at such distances involved and at such small vertical angles of difference, even allowing for excellent viewing conditions which would be needed to perceive these differences in apparent height. The Applicant would also note that in order to appreciate the apparent height difference between two objects, the observer also has to know the heights of one object in the first place, i.e. the height of the operational turbines, in order to compare the apparent height difference. In reality, the large majority of people viewing the windfarms will not know the height of the Greater Gabbard or Galloper turbines and will simply perceive the Project turbines either as being a similar distance away but with slightly bigger turbines, or as being similar sized turbines located closer to them. The Applicant notes that NE consider that 200m turbines at distances of 32.6km (closest representative viewpoint) would be not significant.
NE-2.10	With the exception of viewpoint 10, which the SLVIA judges to be not significant, for all other viewpoints within 36.4km of the coast significant adverse visual effects are predicted. Natural England agrees with these judgements for these viewpoints other than viewpoint 10 where we advise significant visual effects are likely to	This agreement on the significant effects identified in the visual assessment is noted by the Applicant. The Applicant's response to comments on Viewpoint 10 is addressed at NE-3.9. The Applicant's analysis identifies that the apparent height value of 300m Project turbines

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	occur. For all of these viewpoints our analysis shows that the apparent height value is greater than 0.400˚.	is greater than 0.400˚ from all SLVIA viewpoints within 36.2km (and less than 0.464˚).
NE-2.11	We advise, therefore, the predicted apparent height of the 300m turbines used in the EA2 worst case scenario will be greater than that of the existing OWFs situated in the seascape setting of the AONB. As a consequence, as it is currently configured and taking into account other visual factors, EA2 would have both a significant adverse effect on the statutory purposes of the AONB and would also represent an upscaling (by around 50%) of the visual impact on the seascape setting of the designation.	The Applicant notes this advice; however it would balance this with the assessment that the apparent height of the Project 300m turbines will only be greater than that of the existing offshore windfarms in views from northern parts of the seascape setting of the AONB. In other parts of the seascape setting of the AONB, particularly from Thorpeness southwards, the apparent height is predicted to be similar or less than the existing Greater Gabbard and Galloper windfarms. The Applicant considers that it is not advisable to quantify visual impact in terms of a percentage, which does not accord with the more qualitative approach to LVIA advocated in guidance. It is not clear how this *'50% upscaling of visual impact'* has been derived. Just because there is a 0.158˚ increase in apparent height above Greater Gabbard (1.54 times greater), this does not necessarily translate to a 50% upscaling of visual impact, as there are many other factors which come into the significance assessments made in the SLVIA, including both magnitude of change and sensitivity factors, which have been incorporated in the Applicant's visual assessment in the SLVIA. As assessed in the SLVIA, the Applicant considers that while the Project windfarm site would give rise to some significant visual effects from coastal viewpoints, it would not result in harm to the statutory purposes of the AONB, because it is not the overall character or physical features of the AONB that will be changed, but specific aesthetic/perceptual aspects of its character relating to panoramic views offshore from the coast that

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		will experience change, with the varied and distinctive landscape of the AONB continuing to define its fundamental character.
Section 3 – EA2 Detailed Comments		
Comments on Good Design		
NE-3.1.1	National Policy Statement EN-1, "Overarching National Policy Statement for Energy" section 4.5 explores what constitutes 'good design' for energy infrastructure. National Policy Statement EN-3 "National Policy Statement for Renewable Energy Infrastructure" refers back to EN-1 on this matter and includes addition statements at section 2.4.2; *'Proposals for renewable energy infrastructure should demonstrate good design in respect of landscape and visual amenity, and in the design of the project to mitigate impacts such as noise and effects on ecology'.* And at 2.5.50; *'Good design that contributes positively to the character and quality of the area will go some way to mitigate adverse landscape / visual effects'.* And at 2.7.62; *'Mitigation should be inherent in good design of a windfarm'* Section 4.5.4 of EN-1 requires; *'Applicants should be able to demonstrate in their application documents how the design process was conducted and how the*	Reference to how the the Project will achieve 'good design' in respect of addressing potential seascape, landscape and visual effects is contained in Chapter 28 Table 28.4 (APP-076), with reference to NPS-1 paragraph 5.9.22 and EN-3 paragraph 2.4.2. Embedded mitigation measures are presented in ***section 28.3.3*** of ***Chapter 28 Seascape, Landscape and Visual Amenity*** (APP-076). The visual effects of the windfarm site upon the AONB cannot be eliminated. The revised design presented in this chapter, does however, represent a reduction in the geographic extent of the Project windfarm site, having reduced lateral spread, a more concentrated grouping, increased distance offshore and reduced cumulative landscape and visual effects on the AONB, effectively avoiding the 'curtaining' effect which occurred with the PEIR layout. The Applicant considers that these measures, described in ***section 28.3.3*** of ***Chapter 28*** (APP-076) show how the proposed design evolved in response to seascape, landscape and visual impacts and to the relevant consultee concerns relating to these matters. It is against this background that the Applicant proposed, by way of mitigation, a reduced windfarm site area. In particular, this has regard to the statutory purposes of the AONB and demonstrates good design in respect of landscape and visual

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	proposed design evolved. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected'. The purpose of 'good design' is therefore to ensure that the proposal represents sustainable development in the sense that; *'energy projects should produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible'.* The policy statements listed above clearly demonstrate that landscape and visual factors, regardless if these relate to the statutory purposes of a designated landscape, are a consideration for the purposes of 'good design'. At 5.9.12 EN-1 states; *'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 should be designed sensitively given the various siting, operational, and other relevant constraints'.* Which is then clarified at 5.9.13; *'The fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent'.*	amenity, given the various siting, operational, and other relevant constraints. The Applicant considers that the reduced windfarm site area will provide an important contribution to reducing the seascape, landscape and visual effect of the Project windfarm site on the AONB. The Applicant notes that NE recognise the embedded mitigation that the revised design presents and have, in NE-3.3.5, confirmed that *'the cumulative effect of EA2, in conjunction with EA1N, will be reduced through the creation of a clear gap in the seascape between these 2 schemes. This has effectively removed the possibility that a 'curtaining' effect would be apparent from certain viewpoints located on the coastline of the AONB'.* The Applicant notes that NE's principal concern is now the impact resulting from the height of the 300m high turbines representing the worst case scenario. The Applicant notes that taller turbines are being proposed for other offshore wind farm projects (such as Hornsea 4, which proposes up to 375m blade tip). The Applicant will provide further information in justification of the decisions which have led to the selection of 300m turbines. The Applicant notes the potential for further mitigation of the seascape, landscape and visual effects through embedded design, for example, through the use turbines of lower height (such as 250m) in all or part of the windfarm site. However, it would note that the benefits of the apparent height reduction of lower 250m turbines have to be considered in light of

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	After reviewing Chapters 3 and 6 of the Environmental Statement Natural England can find no direct reference to how this scheme will achieve 'good design'. The only related reference found was in Chapter 28 table 28.4 p.18 where para. 5.9.22 of EN-1 is quoted. Natural England notes the revised layout design, which has added some embedded mitigation in the form of reduced lateral spread, and welcome this. We also note the role of the site selection process and the operation of navigational lighting in minimising landscape and visual effects. However, despite this significant detrimental landscape and visual effects are still predicted for the scheme principally as a result of technology choice selected for use in the worst case scenario i.e. 300m high turbines. Natural England requests further information on the decisions which have led to the selection of 300m turbines. In particular the use of 300m turbines in the portion of the Development Control Order (DCO) closest to the coast of the AONB. We note the option to use turbines of different heights (Chapter 28 para. 24 p.7) and reflect further mitigation through embedded design is still possible, although noting that significant landscape and visible effects are still possible from the use of 250m turbines. Due to the technology choice selected for use in the worst case scenario, and reflecting that smaller turbines are available, NE considers that the **NPS requirements for 'good design' have not yet been fully applied in the design of the EA2 scheme. And as a consequence the statutory purpose of the AONB will be**	the potential increase in number of turbines required to achieve the same generation capacity, which does at least in part offset the potential benefits, since a larger number of turbines would be visible. The appearance of 250m high turbines are shown in a selection of key viewpoints in ***Figures 28.27g*** (APP-357)***, 28.28i*** (APP-358)***, 28.29g*** (APP-359), ***28.30g*** (APP-360), ***28.31g*** (APP-361) ***and 29.32h*** (APP-362). The Applicant considers that although smaller turbines may be available, it has still applied the NPS requirement for good design through the embedded mitigation that the revised Project design incorporates, which has successfully addressed the key concern raised by NE at PEIR, by effectively removing the possibility that a 'curtaining' effect would be apparent (where views of the horizon could be obscured) in views from the coastline of the AONB. On balance, taking into account the mitigation measures proposed, and that the visual effects of the Project windfarm site upon the AONB cannot be eliminated, the Applicant considered that NPS requirements for 'good design' have been applied in the design of the Project. These design measures provide mitigation of the level of adverse effects to the environmental setting of the AONB and the objectives of designation, including consideration of its panoramic views to sea.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	adversely effected by the EA2 proposal as it is currently configured.	
Comments on Visibility		
NE-3.2.1	Natural England notes that the text used in Offshore Visibility Appendix (PIER Appendix 28.7, ES Appendix 28.8) are essentially the same. At the s42 consultation Natural England's provided extensive advice on offshore visibility. As we still have concerns about the commentary provided in these appendices, we reiterate the relevant parts of our s42 consultation response. We also add further comments in response to new text in the ES SLVIA and as a result of the evidence gathered by NE in the summer of 2019. The information and evidence about visibility is important additional information about the character of the seascape setting of the AONB and Suffolk Heritage Coast (SCH). It is certainly a factor in defining the worst case scenario for the scheme. We note at 28.8 para. 5 p1 that the 'worse case' is assed as requiring 'excellent' visibility conditions as defined at 28.8 para. 3. NE advises that the 'worst case' should be informed by 'very good' to 'excellent' visibility conditions. As would be expected periods of 'very good' and 'excellent' visibility occur most frequently during the summer. Outdoor recreational activity in the AONB (reflected in the visual receptor groups identified in the visual assessment) is at its peak in the summer months (as acknowledged in Chapter 28 para. 134 p.46). GLVIA 3 makes no reference to the frequency of when 'very good' or 'excellent' conditions need to exist in order to define the worst case	The Applicant would note some misunderstanding in the interpretation of ***Appendix 28.8*** (APP-563) paragraph 5 p1 and the consideration of frequency of effect in the SLVIA and provides the following clarifications. The text at ***Appendix 28.8*** (APP-563) paragraph 5 p1 is not intended to imply that the 'worse case' requires only excellent visibility conditions (it is noted that visibility could also be experienced in 'very good' visibility). The text states that *'the assessments in the SLVIA are based on optimum viewing conditions with clear visibility of the turbines and as such assess the 'worst case' or maximum visual effect'.* This is in order that a worst-case is assessed throughout and no reductions in magnitude (or effect) are applied to take account of times of less than optimal visibility. The approach is explained fully in the SLVIA Methodology, ***Appendix 28.2*** (APP-557), ***section 28.5.3***. This includes paragraph 107 '*The judgements made in the SLVIA are based on optimum 'very good' to 'excellent' visibility of the East Anglia TWO windfarm site'* and paragraph 111 *'Met Office visibility frequency data is used to inform an assessment of the likelihood of effect from each viewpoint, in order to qualify any significant effects assessed in optimum visibility conditions, with how likely they are to actually occur given the prevailing weather/ visibility conditions'.* Frequency or 'likelihood' of effect has therefore not been a factor in judging the magnitude or significance of effects assessed in the SLVIA but

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	scenario. As a result frequency is not a critical factor in judging the significance of effect. Natural England advises therefore that the statement contained in the first sentence of 28.8 para. 6, although useful in terms of context, is discounted as it is not a factor in judging significance. Natural England agrees with the statement contained in the second sentence of this paragraph as this is based on the conclusion of the visual assessment. At its closest point to the AONB coast line EA2 is 32.6km distant. Approximately 32 turbines (53%) and potentially 3 other associated structures are located within 40km of the shore. The remaining 28 of the turbines (47%) plus a further 2 associated structures are located beyond 40km. Visibility out to 40km is predicted to occur for 34% of the time whilst visibility beyond 40km can be anticipated to occur for 21% of the time. These numbers have been derived from measurements taken from Figure 28.20 within the ES. Consequently at least 53% of the array will be potentially visible form the coastline for at least 34% of the time. Significant effects have been predicted to occur at distances up to 36.4km (see our comments below). We estimate that up to 14 turbines are located within 37km (25%) of the coast. NE also considers that significant effects are possible beyond this distance. An understanding of the likely number of turbines within the array which would contribute most to the predicted significant landscape and visual effects would be helpful in determining this application.	is stated separately for each receptor to inform the consideration of effects. The Applicant considers that this approach represents best practice and presents the worst-case, in line with the Rochdale Envelope approach, as opposed to an approach where the visual effects may have been considered not significant because they occur over short periods of 'excellent' or 'very good' visibility. Such an approach would not have allowed for significant visual effects potentially occurring for at least some of the time (in 'very good' or 'excellent' visibility) and would not present worst-case. Although visibility frequency has not been a factor in judging significance in the SLVIA, the Applicant would maintain that based on the analysis of the Met Office visibility data (contained in ***Appendix 28.8*** (APP-563)), it is reasonable to conclude that the prevailing visibility and weather conditions will combine to reduce the probability and frequency of significant effects to periods when clear views (i.e. 'excellent' or 'very good' visibility) are available. As noted by NE and as described in Appendix 28.8 of the ES, based on the Met Office data (presented in Plate 28.1, Appendix 28.8), the East Anglia TWO windfarm site would only be visible during periods of 'very good' or 'excellent' visibility. Visibility frequency calculations are presented in the ES in ***Appendix 28.8*** (APP-563) paragraph 37 and within the SLVIA (***Chapter 28*** (APP-076)) at paragraph 230-231. Taking visibility above 30km as the basis for this calculation (since the Met Office provide data >30km in 5km distance

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		bands), visibility of the closest turbines of the Project windfarm site are predicted to occur for approximately 33% of the time (i.e. the addition of all visibility frequency percentages above or beyond 30km). These figures apply to the closest parts of the windfarm site. For turbines located at distances over 40km, visibility is predicted to occur for approximately 20% of the time. The Applicant notes that NE consider it would be helpful to understand further the likely number of turbines within the array that would contribute most to the predicted significant landscape and visual effects. The Applicant considers that it is difficult to identify specific turbines that contribute most to significant landscape and visual effects, partly because the SLVIA is based on a Rochdale Envelope with a realistic worst-case layout (60 x 300m wind turbine layout). Although they represent the worst-case in terms of turbine height, lateral spread and extent of visibility, turbine locations of the Rochdale Envelope layout are not definitive locations in terms of the actual turbine positions that would be installed (if consented). There are also a number of different magnitude and sensitivity factors influencing significance, which vary depending on the receptor and its geographic location. The Applicant does, however, recognise that the distance of the turbines offshore is a key aspect of magnitude and that it influences the apparent height of the turbines in views from the coast. The table below identifies the distance of each wind turbine within the Project windfarm site to the closest point of the coast. It provides some understanding of the likely number of turbines within the array which may contribute most to the apparent height effect.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		Distances presented in the table below are based on the turbine numbering of the 300m worst case scenario project envelope layout shown in the wirelines in Figures 28.25 – 28.46 of the ES (APP-355 to APP-376). They are based on distance offshore from the closest point of the coast and listed in order of distance. Turbines are grouped into bands of 32-35km, 35-40km, 40-45km, 45-50km and 50-55km offshore from the closest point of the coast. Based on the realistic worst-case layout assessed as the project design envelope for the SLVIA, it is notable that there are very few turbines (only 3) within the closest 32-35km distance band. It should be noted therefore, that the minimum distances referred to in the ES, including from the AONB and viewpoints within it, are very often a worst-case to the closest point of the windfarm site, however the majority of turbines (in the project design envelope layout) are actually located at greater distance offshore, beyond 35km. The majority of turbines in the project design envelope layout are located between 35-40km (26 turbines) or 40-45km (22 turbines) from the closest parts of the coast. In addition, there are 9 turbines located over 45km from the coast. All of the distance and turbine numbers within each distance band are indicative of the project design envelope layout and are subject to change, providing only a guide to the number of turbines within the array that would contribute most to the predicted significant landscape and visual effects. **Distance band (in km)** / **Number of turbines within distance band** / **Turbine ID number** / **Distance to closest point of UK land (km)**

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments			
		32 – 35 km	3	58	33.6
				55	34.3
				50	35.0
		35 – 40 km	26	53	35.1
				36	35.2
				59	35.5
				48	35.8
				32	35.8
				44	36.3
				56	36.3
				29	36.5
				41	36.8
				54	37.1
				25	37.2
				60	37.3
				37	37.4
				51	37.8
				33	38.0
				57	38.2
				45	38.5
				30	38.6
				16	38.7
				42	39.0
				26	39.3
				49	39.4
				11	39.5
				38	39.6
				52	39.8
				21	39.9

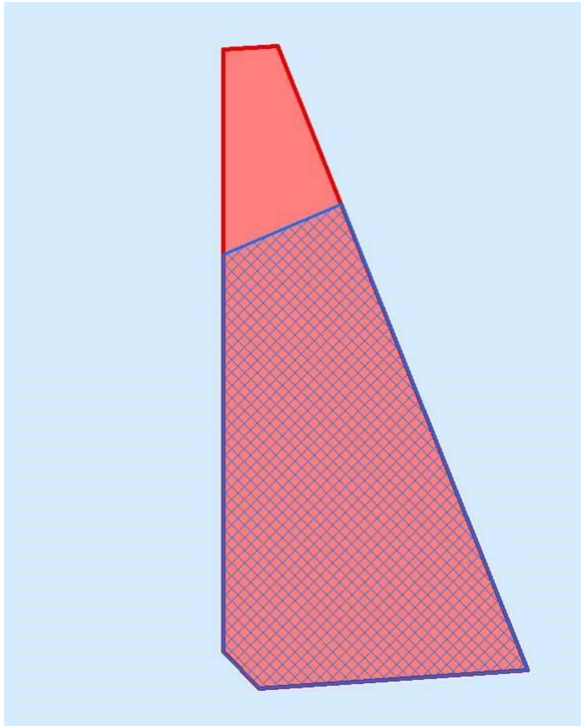
Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments			
		40 – 45 km	22	34	40.1
				6	40.3
				46	40.3
				17	40.7
				31	40.7
				43	41.1
				27	41.3
				12	41.4
				39	41.8
				22	42.0
				47	42.1
				7	42.2
				35	42.3
				18	42.7
				13	43.4
				28	43.5
				40	43.8
				23	44.1
				8	44.1
				19	44.8
				3	44.9
				14	45.4
		45 – 50 km	8	9	46.1
				24	46.2
				20	46.9
				4	46.9
				15	47.5
				10	48.2
				5	48.9

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		<table><tr><td></td><td></td><td>2</td><td>49.6</td></tr><tr><td>50 – 55 km</td><td>1</td><td>1</td><td>50.3</td></tr></table> It is notable that there are very few turbines (3) within the closest 32-35km distance band, with the majority of turbines being located between 35-40km (26) or 40-45km (22) from the closest part of the coastline.
NE-3.2.2	At the S42 consultation NE commented on the information and statements contained in paragraphs 8 and 12 of 28.8 (paragraphs 7 and 11 of PEIR document 28.7). We have since reviewed our comments and provided an update here. In paragraph 8 we note the reference to windfarms in the English Channel in the final sentence and understand that the report was in published in 2012 with fieldwork presumably being undertaken in 2011. In 2011 there were no windfarms located in the English Channel; the first and only such scheme located in the English Channel to date is Rampion, the construction of which commenced in 2015. A copy of quoted research document 'Offshore Wind Turbine Visibility and Visual impact Threshold Distances (2012)', included as an appendix to the ES would be helpful. In paragraph 12 we note that the maximum height of the turbines included in the study quoted is 153m, whereas the EA2 turbines used in the worst case realistic scenario are 147m taller. In addition we note from the abstract of the quoted research document that:	A copy of the quoted research document 'Offshore Wind Turbine Visibility and Visual impact Threshold Distances (2012)' is provided in ***Appendix 7*** of this document for reference. The article presents the results of fieldwork undertaken to assess the visibility of offshore windfarms currently operating in actual seascape settings and the effects of distance and variable atmospheric and lighting conditions on offshore wind turbine visibility. The fieldwork was undertaken as part of a larger effort to develop a Visual Impact Evaluation System for Offshore Renewable Energy in the United States. At the time, as there were no utility-scale offshore wind facilities in the US, the UK was chosen as the study site. The findings of the study are referred to ***Appendix 28.8*** (APP-563) since there is relatively little published independent research on the matter and the article was considered useful in helping to frame the discussion about visibility and separation distances, as acknowledged by NE. The limitations of this research article are recognised in the SLVIA - it considers turbines up to 153m to blade tip and not the larger scale commercial turbines that are currently under consideration for NSIP offshore windfarms in the UK. It is acknowledged in the SLVIA (***Appendix***

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	'Results showed that small to moderately sized facilities were visible to the unaided eye at distances greater than 42 km [26 miles (mi)], with turbine blade movement visible up to 39 km (24 mi). At night, aerial hazard navigation lighting was visible at distances greater than 39 km (24 mi). The observed wind facilities were judged to be a major focus of visual attention at distances up to 16 km (10 mi), were noticeable to casual observers at distances of almost 29 km (18 mi), and were visible with extended or concentrated viewing at distances beyond 40 km (25 mi).' This research is helpful in framing discussion about visibility and separation distances for turbines up to 153m although makes no reference to the AOD height of the observer. However, it doesn't assist in judging the significant effect for visual receptors located within designated landscapes and should therefore be treated with significant caution and not considered within any determination.	***28.8*** (APP-563), paragraph 11) that this research article does not attempt to assess whether visibility is significant or not. As described in response to NE-2.5, judgements on significance should properly be based on the assessment material provided in the ES which have been undertaken in accordance with best practice guidance (GLVIA3) and appreciated during field evaluation at the viewpoints with reference to the photomontages included in the SLVIA (Figures 28.25 – 28.54 (APP-355 to APP-380)).
Comments on the revised layout design:		
NE-3.3.1	The revised design presented in the ES is welcomed by Natural England for the reduction in the magnitude of effect this represents.	The Applicant notes agreement that the revised design of the Project windfarm site will reduce the magnitude of change and the effect that results.
NE-3.3.2	<u>Reduced lateral spread</u> Natural England agrees that the revised layout will reduce the magnitude of seascape, landscape and visual effects on the setting and key coastal viewpoints of the AONB. We agree that the revised design results in a notable reduction in the lateral spread (See ES Table 28.3) which we calculated to be between 31% and 28%. See table 2 below.	The Applicant notes agreement that the revised layout will reduce the magnitude of seascape, landscape and visual effects on the setting and key coastal viewpoints of the AONB; and that the revised design results in a notable reduction in the lateral spread (between 31% and 28% i.e. around one-third reduction in the lateral or horizontal spread of the windfarm site).

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	Table 2 Calculations of % reduction in lateral spread based on Table 28.3 of ES	The Applicant considers that the reduced lateral spread of the windfarm site will provide an important contribution to reducing the seascape, landscape and visual effect of the Project windfarm site on the AONB.

Viewpoint	PEIR Separation distance (km)	ES Separation distance (km)	Difference (km)	PEIR Horizontal angle (degrees)	ES Horizontal angle (degrees)	Difference (degrees)	Difference (%)
3 Covehithe	30.6	33	+2.6	37.5	26.1	-11.4	31%
4 Southwold	31.5	32.6	+1.1	40.5	28.1	-12.4	30%
5 Gun Hill, Southwold	31.7	32.6	+0.9	40.7	28.3	-12.4	30%
6 Walberswick	32.7	33.2	+0.5	40.8	28.4	-12.4	30%
7 Dunwich	35.0	34.6	-0.4	41.0	28.8	-12.6	31%
8 Dunwich Health Coast	35.7	34.7	-1.0	41.8	29.4	-12.4	30%
9 Minsmere Nature Reserve	36.2	35.2	-1.0	41.3	29.2	-12.1	29%
10 Sizewell Beach	35.6	34.8	-0.8	42.3	30.2	-12.1	29%
11 Suffolk Coastal path between Sizewell and Thorpeness	35.6	34.8	-0.8	42.6	30.4	-12.2	29%
12 Thorpeness	35.8	35.1	-0.7	42.3	30.2	-12.1	29%
13. Aldeburgh*	36.4	35.9	-0.5	41.2	29.4	-12.0	29%
18. Orford Ness (Lighthouse)	37.6	37.4	-0.2	37.8	27.1	-10.7	28%
We note in the PEIR that significant effects were predicted at a separation distance of 36.4km for this location.							

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
NE-3.3.3	Concentrated grouping Natural England agrees that concentrating the turbines into a smaller area will assist in reducing the magnitude of effect of the scheme.	The Applicant notes agreement that concentrating the turbines into a smaller area will assist in reducing the magnitude of change and the resulting effect of the Project windfarm site.
NE-3.3.4	Increased distance from the shore We note the increase in the minimum separation distance to 32.6km and the increase in separation distance from the coast at viewpoints 3, 4, 5 and 6 and welcome this. We also note the decrease in separation distance for viewpoints 7, 8, 9, 10,11,12,13 and 18. Based on these 12 locations the average separation distance for this portion of the AONB coastline remains unchanged at 34.5km. Natural England concludes therefore that the revised design provides no embedded mitigation in terms of proximity to the coast of the AONB nor in the height of the turbines used in the worst case scenario. Consequently the magnitude of this effect remains the same as that for the scheme design presented in the PEIR. This is primarily due to the height of the turbines used in the worst case scenario that so many significant landscape and visual effects have been identified in the SLVIA for landscape and visual receptors located in the northern portion of the AONB.	 Figure showing the Project PEIR (red) and ES (blue) windfarm site boundaries (NOTE - no change to southern portion)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments

The Applicant has provided an updated version of ***Table 28.3, Chapter 28*** (APP-076) as clarification. The minimum distances to the PEIR windfarm site set out in the 'CORRECTED' column in this table below, supersede those identified in the ES.

The minimum distances to the ES windfarm site are correct as listed in ES ***Table 28.3, Chapter 28*** (APP-076) and are repeated in the corrected table below (right hand column).

Table 28.3 Corrected: Comparison between distance and horizontal angle of the Project windfarm PEIR site boundary and ES site boundary from representative viewpoints in Suffolk

Viewpoint		ES TABLE 28.3 Distance from the Project windfarm site (km) – PEIR	CORRECTED Distance from the Project windfarm site (km) – PEIR	Distance from the Project (km) – ES
1	Lowestoft	32.1	31.7	37.0
2	Kessingland Beach	30.5	30.2	34.1
3	Covehithe	30.6	30.4	33
4	Southwold	31.5	31.4	32.6
5	Gun Hill, Southwold	31.7	31.7	32.6

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments				
		6	Walberswick	32.7	32.6	33.2
		7	Dunwich	35.0	34.5	34.6
		8	Dunwich Heath & Beach (Coastguard cottages)	35.7	34.7	34.7
		9	Minsmere Nature Reserve	36.2	35.2	35.2
		10	Sizewell Beach	35.6	34.8	34.8
		11	Suffolk Coastal Path, between Thorpeness and Sizewell	35.5	34.8	34.8
		12	Thorpeness	35.8	35.1	35.1
		13	Aldeburgh	36.4	35.9	35.9
		14	Orford Castle	40.6	40.4	40.4
		15	Shingle Street	46.0	45.8	45.8
		16	Bawdsey	47.7	47.4	47.4
		17	Old Felixstowe	52.4	52.1	52.1
		18	Orford Ness (Lighthouse)	37.6	37.4	37.4

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		There are minor differences between the distances to the PEIR windfarm site quoted in ***Table 28.3, Chapter 28*** (APP-076) of the ES and the corrected distances to the PEIR windfarm site in Table 28.3 above. The order of difference is minor between 0.2km and 1km difference, and occurred due to a difference in the geographic projection of the PEIR and ES windfarm site boundaries and other minor differences due to more accurate UK coastline / local authorities / county data used in the ES compared to the PEIR. Viewpoints 1 – 7 are the 'northern' viewpoints in Suffolk where the minimum distance to the Project windfarm site has increased in the ES, compared to the PEIR. Viewpoints 8 – 18 are the 'southern' viewpoints where the minimum distance to the Project windfarm site PEIR boundary will remain identical to the ES windfarm site boundary. In terms of proximity to the coast, there is an increased minimum separation distance from the 'northern' viewpoints (1-7) and no change in the separation distance for southern viewpoints (8-18). **The Applicant would therefore clarify that there has been no reduction of the minimum separation distance between the PEIR windfarm site and the ES windfarm site.** The Applicant would therefore reason that the revised design does provide embedded mitigation in terms of proximity to the coast, given that there is an increased separation from northern viewpoints and no decrease in separation distance for southern viewpoints.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		The Applicant considers that the separation distance of coastal viewpoints from the Project windfarm site should not be averaged, as the benefit of the mitigation provided by increased separation from parts of the AONB may be lost in this averaging. The Applicant notes that the mitigation provided by the revised design was principally aimed at addressing the lateral spread of the windfarm site in views and not necessary its distance offshore (which is already 32.6km from the closest AONB viewpoint). As set out in full in ***Section 28.3.3*** of the ES (APP-076), the revised design of the Project windfarm site has resulted in some specific reductions in the magnitude of change assessed in the ES, from viewpoints in the northern part of the AONB, such as Kessingland and Covehithe, where the medium magnitude of change assessed at PEIR reduced to medium-low in the ES. In these viewpoints, the increased separation distance and perceived reduction in lateral spread was most notable. In addition, the revised design resulted in a general reduction in the scale of change arising in views from other locations, where the magnitude of change 'threshold' did not change, but mitigation of the intensity of effects occurred, such that changes were considered to be towards the lower threshold of medium in the assessment. The Applicant notes NE's comments regarding the height of the turbines used in the worst case scenario resulting in significant landscape and visual effects and would point to the response at NE-2.4 to NE2.9 with regards to apparent height.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
NE-3.3.5	Cumulative effects Natural England agrees that the cumulative effect of EA2, in conjunction with EA1N, will be reduced through the creation of a clear gap in the seascape between these 2 schemes. This has effectively removed the possibility that a 'curtaining' effect would be apparent from certain viewpoints located on the coastline of the AONB. However we note that significant cumulative effects are still predicted.	The Applicant notes agreement that the cumulative effect of the Project windfarm site, in conjunction with East Anglia ONE North, will be reduced through the creation of a clear gap in the seascape between the two windfarms; and that this has effectively removed the possibility that a 'curtaining' effect would be apparent from certain viewpoints located on the coastline of the AONB.
Comments on night-time effects:		
NE-3.4.1	Natural England's advice at s42 included comments on the night time effects produced by the navigation lighting associated with the EA2 turbines. From our review of the ES SLVIA documents we can find no evidence that our comments have been addressed. We request therefore that these effects are assessed and the results used to inform the significance of effect judgement for both landscape and visual receptors. For clarity we repeat out comments at s42 below. Please note these have been amended slightly to reflect our updated advice as presented elsewhere in this document. We note at section 28.3.3 para. 42 p.12 that embedded mitigation measures include the fitting of *'aviation warning lights to significant peripheral wind turbines and will allow for reduction in lighting intensity at and below the horizon when visibility from every wind turbine is more than 5km'*. We presume therefore that the worst case scenario would be that illustrated in figure 28.28g where 2000 candela lights are shown.	As set out at ***Chapter 28*** (APP-076), paragraph 83, a selection of receptor locations / viewpoints were agreed with the ETG as needing night-time photomontages to illustrate the likely impacts of aviation and marine safety lighting, from Lowestoft (Vp1, Figure 28.25f (APP-355)), Kessingland (Vp2, Figure 28.26f (APP-356)), Southwold (Vp4, Figure 28.28f (APP-358)), Aldeburgh (Vp13, Figure 28.37e (APP-367)) and Felixstowe (Vp17, Figure 28.41e (APP-371)). The SLVIA focuses on the visual effects of the aviation lighting of the wind turbines considered for each of the above viewpoints in ***Appendix 28.5*** (APP-560). These receptors were agreed with the ETG based on the locations where people will most likely experience night-time view, i.e. the sea fronts of key settlement receptors, within and outside the AONB. The photomontages and assessment provided from these viewpoints are considered sufficient to allow judgement of the likely effects of aviation lighting in views from other nearby coastal locations, including the viewpoints referred to by NE in rural areas, namely Viewpoints 3, 6, 8, 11, 12 and 18.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	Natural England is unsure as to why the assessment of night time effects has been restricted to LCT 25, which only affects the urban areas of Southwold and Aldeburgh. Dark skies are an important component of the special qualities of the AONB (see Assessment of AONB Special Qualities below) and it is clear from the figures 28.28g and 28.37f that the aviation navigational lighting affixed to EA2 has the potential to adversely affect this. Our experience of other OWF suggests that aviation navigational lighting is a conspicuous feature when viewed from the shore and that atmospheric conditions, such as sea fog, can amplify the adverse effect as aviation navigational lights flash in sequence. Natural England wishes to see an assessment of the effects of navigational lighting on night time skies, based upon the worst case scenario for the use of navigational lighting, on the following LCTs: • LCT 05 Coastal Dunes and Shingle Ridges (Area C) • LCT 06 Coastal Levels (Area B and D) • LCT 07 Estate Sandlands (Areas A and C) • LCT 29 Covehithe Broad and Easton Broad • We request that a visual assessment is undertaken for the receptor group 'beach users' from the viewpoints located within the relevant LCTs namely; • Viewpoint 03 • Viewpoint 06	As stated in ***Chapter 28*** (APP-076) paragraph 38, the SLVIA and the night-time photomontages assume full lighting intensity of the 2000cd aviation warning lights in 'very good' to 'excellent' visibility conditions as a worst case. The assessment is additionally conservative in that it does not take into account any directional intensity of the lighting – aviation lighting is required to minimise downward light spill and upward glare. This would further reduce the perceived intensity of lights at the coast. Embedded mitigation measures are described in paragraph 38 and 44 of ***Chapter 28 SLVIA*** (APP-076). This includes the potential to reduce the intensity of lights from 2,000cd to 200cd. As provided for in CAA guidance CAP 393 , 2,000cd aviation lights may be dimmed to 10% of their intensity (200cd) where visibility conditions permit, when visibility from every turbine within the windfarm group is >5km. Therefore, the Applicant can commit to reducing intensity to 200cd when these conditions are met. As identified at ***Chapter 28*** (APP-076), paragraph 215, landscape character is not readily perceived at night due to the level of darkness, particularly in rural areas. The assessment of turbine lighting in the SLVIA does not consider effects of aviation lighting on landscape character (i.e. landscape effects). For 2,000 candela medium intensity steady or fixed red lights, ICAO[55] indicates a requirement for no lighting to be switched on until 'Night' has been reached, as measured at 50cd/m2 or darker. This is helpful as it does not require 2,000 candela medium intensity to be on during 'twilight', when landscape character may be discerned.

[55] Annex 14 to the Convention on International Civil Aviation - Volume I Aerodrome Design and Operations (ICAO, Eighth Edition, July 2018).

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	• Viewpoint 08 • Viewpoint 11 • Viewpoint 12 • Viewpoint 18	CAA regulations require aviation lights to be switched on when 'Civil Twilight' occurs, after official sunset and before sunrise. In effect it means that the opportunity to see turbine aviation lights and assess landscape character is a relatively short window and does not give rise to landscape character effects. During the twilight hours, the aviation lights may be seen for a short period, when some recognition of landscape features/ profiles/ shapes and patterns may be possible. It is considered that level of recognition does not amount to an ability to appreciate in any detail landscape character differences and subtleties, nor does it provide sufficient natural light conditions to undertake a landscape character assessment. In the same way, an assessment of the special qualities of a designated landscape cannot be made at dusk or night-time, other than an appreciation of the dark sky qualities that may apply to an area (as recorded for the AONB), which is essentially a visual or experiential/ perceptual quality. The Applicant considers that NE's statement *'dark skies are an important component of the special qualities of the AONB'* requires further justification. Although dark skies are mentioned as an indicator in the AONB special qualities report, the description simply notes that there are 'areas with dark skies' and that these are 'relatively dark skies', but does not describe them as a particularly important component of the special qualities of the AONB, which principally focus on qualities that are perceived during the day-time. The matter of visible aviation lighting assessment is wholly a visual concern and the assessment presented in the SLVIA focusses on that

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		premise. As stated in the SLVIA, it is considered that the proposed aviation lighting will not have significant effects on the perception of landscape character, which is not readily perceived at night in darkness, particularly in rural areas.
Comments on the AONB baseline:		
NE-3.5.1	For the s42 consultation Natural England made comments on the anticipated trends in the AONB baseline conditions. The text in the ES SLVIA is essentially same as that used in the PEIR SLVIA. Therefore for clarity we repeat our comments from the s42 consultation below. Natural England fails to understand the relevance of this section to defining the existing landscape baseline against which the significance of this scheme will be judged. The aims and objectives of the AONB Management Plan (para. 141) focus on the conservation and enhancement of the natural beauty of the designation and will help guide future development. As national planning policy (NPPF para. 172) seeks to limit major development in designated landscapes it is unlikely that the baseline conditions, as they relate to the developed environment, will alter greatly in the forthcoming decades. The exception is Sizewell C, the DCO for which is yet to be submitted but is expected to be during the examination for this project.	The Applicant notes that it is a requirement of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 to provide a description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution of that baseline without implementation of the development. ***Section 28.5.4*** 'Anticipated trends in the AONB baseline conditions' of ***Chapter 28*** (APP-076) is therefore provided to address this requirement. The impact assessment is undertaken against the existing landscape baseline, against which the significance of the project is judged.
NE-3.5.2	Natural England accepts the reasoning set out in this paragraph but is concerned about the conclusions drawn. The applicant is correct in stating that the seascape covered by the study (and the wider seascape of the southern North Sea) is increasingly characterised by the presence of a number of large offshore windfarms. However, we	The Applicant notes agreement that the seascape covered by the study (and the wider seascape of the southern North Sea) is increasingly characterised by the presence of a number of large offshore windfarms.

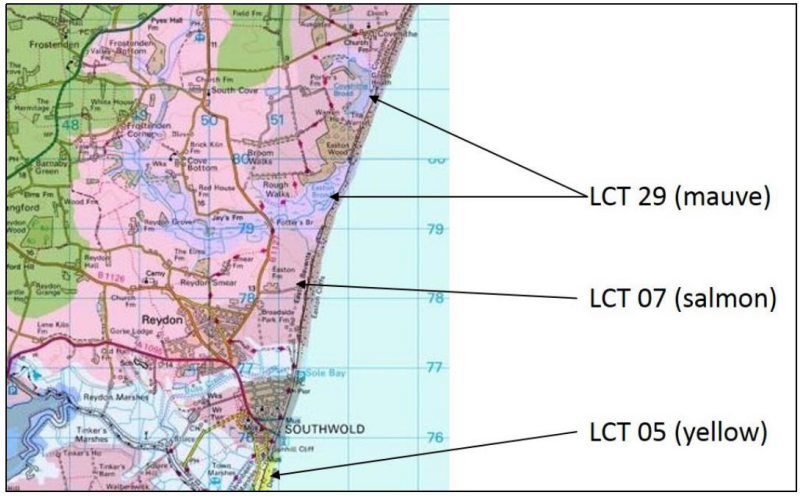
Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	consider that it is incorrect to assume that the acceptable landscape and seascape change which this has produced sets a precedent for EA2. The landscape referred to in the text covers the entirety of the study area and fails to differentiate between designated and non-designated landscapes. We contend that whilst the landscape change identified may be deemed acceptable for non-designated landscapes this does not justify the significant adverse effects predicted for the EA2 on the nationally designated landscape of the AONB. We note the SLVIA assessment for the Galloper OWF scheme judged its landscape and visual effects to be either minor or negligible and therefore not significant. Natural England agreed with this judgement. So although visible from the southern portion of the AONB this reference to the Greater Gabbard and Galloper arrays is potentially misleading as these schemes have not resulted in a significant adverse effect on the statutory purposes of the AONB. However, in contrast the SLIVA EA2 does conclude there will be a significant adverse effect on the AONB and also greatly extends the northward spread and visual influence of turbines further across the seascape setting of the designation. NPS EN-1 states that the 'aim should be to avoid compromising the purposes of the designation and that projects should be designed	As part of the 'Anticipated trends in the AONB baseline conditions' section, paragraph 142 of ***Chapter 28*** (APP-076) sets the context for the evolving seascape baseline, which is anticipated to change given the consented East Anglia THREE offshore windfarm and potentially if other NSIP applications are consented. The text does not explicitly state that the Project is therefore acceptable in this context, merely that it fits with the overall approach of 'accommodation' of wind energy development in this seascape. Paragraph 142 of ***Chapter 28*** (APP-076) also does not state the Greater Gabbard and Galloper have significant effects, providing a statement of fact that they are present and visible in the seascape. This is recognised in the Suffolk Coast and Heaths AONB Natural Beauty and Special Qualities Report (2016) *'Offshore wind turbines at Greater Gabbard, Galloper and the more distant London Array are visible from some stretches of the coastline. These create a cluttered horizon and, like the large scale elements onshore, also divide opinion'.* The SLVIA recognises that the Project windfarm site results in some significant effects on the perception of panoramic offshore views from parts of the AONB coastline, however the Applicant considers that the project will not result in harm to the statutory purposes of the AONB. The reduced windfarm site area has regard to the statutory purposes of the AONB and demonstrates good design in respect of landscape and visual amenity, given the various siting, operational, and other relevant constraints.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	sensitivity'. The consideration therefore is good design and not the precedent set by other schemes.	
Comments on seascape character assessment		
NE-3.6.1	For the s42 consultation we requested that maintenance activities associated with the operational phase of the scheme are incorporated into the seascape assessment; see Chapter 6 6.5.15 p.59 – 60. From our review of the ES SLVIA we cannot find evidence that this has been done. We therefore ask again that this is done. We offer the following comments on the seascape assessment as set out in the ES SLVIA. As with our comments at s42 our advice relates solely to the contribution that SCT 06 makes to the seascape setting of the AONB. <u>SCT 06 Offshore Waters</u> We note the amended wording in paragraph 152 in respect of the contribution LCT 06 makes to the seascape setting of the AONB and welcome this. The following sentence is particularly helpful in clarifying the relationship. *'Whilst the SCT (06) forms part of the wider seascape setting of the AONB the land has very little influence on the character of the SCT itself'.* In addition the following sentence in paragraph 155 (Chapter 28 p.46) also helpful;	Maintenance activities associated with the operational phase of the scheme are incorporated into the SLVIA. As stated in ***Chapter 28*** (APP-076) paragraph 1 'Operational effects include consideration of maintenance'. This is also noted at paragraph 161 in relation to landscape character impacts *('Long-term impacts on landscape character during operation and <u>maintenance'</u>)*; and paragraph 219 in relation to visual impacts (*'Long-term visual impacts on views during operation and maintenance').* The Applicant considers that no further assessment of maintenance activities is required as they are incorporated as part of the operational impact assessments in the SLVIA. The Applicant notes the comments on the seascape assessment of SCT06 Offshore Waters as set out in the ES SLVIA.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	'It (EA2) will however result in changes to the seascape character, perceived from the land, particularly that portion of the Offshore Water LCT (06) which forms the seascape setting of the AONB'.	
Comments on landscape receptors		
Table 3.7	We restrict our comments to those Landscape Character Type (LCT) sub areas within the AONB. **Table 3 Summary of Natural England's position based on Table 28.9 of the ES**	With regards to effects on landscape character types (LCTs), the Applicant notes considerable agreement between the ES impact assessment and NE on the LCT receptors that may experience significant and not significant effects. The Applicant notes disagreement only on the ES impact assessment for parts of two LCTs: • Coastal Levels (LCT 06) Areas B and D • Wood Fens (LCT 29) Covehithe Broad and Easton Broad

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	<table><tr><th>Landscape Character Type</th><th>Environmental Statement Judgement</th><th>Natural England's position</th></tr><tr><td colspan="3">Coastal Dunes and Shingle Ridges (LCT 05)</td></tr><tr><td>Area C*</td><td>Significant</td><td>Agree</td></tr><tr><td>Area D*</td><td>Not Significant</td><td>Agree</td></tr><tr><td>Area E</td><td>Not Significant</td><td>Agree</td></tr><tr><td colspan="3">*we note the change in the description and geographical areas of these from that used in the PEIR. For clarity NE understands that the 'north side of Orford Ness' refers to the point where LCT 05 is intersected by LCT 20.</td></tr><tr><td colspan="3">Coastal Levels (LCT 06)</td></tr><tr><td>Area B</td><td>Not Significant</td><td>Disagree</td></tr><tr><td>Area C</td><td>Not Significant</td><td>Agree</td></tr><tr><td>Area D</td><td>Not Significant</td><td>Disagree</td></tr><tr><td>Area E</td><td>Not Significant</td><td>Agree</td></tr><tr><td>Area F</td><td>Not Significant</td><td>Agree</td></tr><tr><td colspan="3">Estate Sandlands (LCT 07)</td></tr><tr><td>Area A</td><td>Significant</td><td>Agree</td></tr><tr><td>Area B</td><td>Not Significant</td><td>Agree</td></tr><tr><td>Area C</td><td>Significant (Dunwich Heath)</td><td>Agree</td></tr><tr><td>Area D</td><td>Not Significant</td><td>Agree</td></tr><tr><td>Area E</td><td>Not Significant</td><td>Agree</td></tr><tr><td colspan="3">Open Coastal Fens (LCT 08)</td></tr><tr><td>Area A</td><td>Not Significant</td><td>Agree</td></tr><tr><td>Area B</td><td>Not Significant</td><td>Agree</td></tr><tr><td>Area C</td><td>Not Significant</td><td>Agree</td></tr><tr><td></td><td></td><td></td></tr></table> ***In addition Natural England advices that there will be a significant adverse effect on LCT 29 Wooded Fens (Covehithe Broad and Easton Broad) which has not been assessed in the ES .**	
NE-3.7.1	Our advice provided at s42 remains the same for these LCT areas. For completeness included below is the reasoning we set out in our response to the s42 consultation.	The Applicant notes that NE's advice provided at s42 remains the same for these LCT areas. Further field survey work has been undertaken to review comments on these LCTs. The Applicant provides responses as set out below.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
NE-3.7.2	LCT 06 Area B We disagree with the judgement of no significant effects for the construction and operational phases of the scheme. The contribution the sea makes to the coastal portion of this LCT has been underestimated in the assessment. A portion of this LCT extends down to the coast (at Sole Bay, to the north of Southwold) where long distance and panoramic views out to sea will be altered through the loss of the open seascape occupied by EA2. We advise therefore that the scale of the change should be 'medium' for these portions of the LCT and the judgement should be significant.	LCT 06 Area B The Applicant maintains its assessment of LCT 06 Area B as set out in the ES. Only a very small part of this LCT extends down to the coast (at Sole Bay), with the majority set back and covering land 'behind' Southwold (to its north and west), where there is limited visibility shown on the ZTV and further screening by intervening urban development. There is very limited visibility from the Town Marshes / Havenbeach Marshes area, due to intervening raised shingle/dunes landforms towards the sea which 'shelter' the coastal levels on its inland side. There are numerous more prominent existing development influences in the context of the LCT around Southwold. Much of the LCT is marshland with limited access to perceive changes to its character. Overall, the perceived character of these areas of the LCT would be medium-low as assessed in the ES and would not be significantly affected by the Project windfarm site, which is located on the sea skyline at long distance over 32km from this area of LCT 06.
NE-3.7.3	LCT 06 Area D We disagree with the judgement of no significant effects for the construction and operational phases of the scheme. The contribution the sea makes to the coastal portion of this LCT has been underestimated in the assessment. Although the beach and shoreline are not visible from this LCT, due to the low shingle ridge contained in LCT 05, long distance and panoramic views out to the seaward horizon are available and form a key component of the character of this area. Due in part to the height and mass of the turbines the EA2 scheme will be visible (as predicated by the ZTV model Figure 28.23b which indicates up to 60 blades tips will be visible in the northern portion of the area).	LCT 06 Area D The Applicant maintains its assessment of LCT 06 Area D as set out in the ES. Similar to Area B above, there is very limited visibility from within the LCT which drops down to lower levels inland of the low shingle ridge contained in LCT 05, which limits direct views of the sea and is predicted to provide screening of the turbines within the Project windfarm site. Although visibility is indicated from central parts of the LCT in the ZTV, field survey verification confirms limited visibility from the Suffolk Coast Path crossing the LCT, which is on a raised embankment, with the surrounding levels being lower in elevation. There are numerous more prominent existing development influences in the context of the LCT around Southwold and Thorpeness. Overall, the perceived character of the coastal portion/edges of this area of the LCT would be medium-low as

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	We advise therefore that the scale of the change should be medium for these portions of the LCT and the judgement should be significant.	assessed in the ES and would not be significantly affected by the Project windfarm site.
NE-3.7.4	<u>LCT 29 Covehithe Broad and Easton Broad</u> Following a site visit to viewpoint 3 (Covehithe Beach) undertaken on 23rd June 2019 Natural England now has a clearer understanding of how this LCT interacts with its seascape setting. Previously we had thought that LCT 05 extended along the entirety of the coastline north of Southwold to the edge of the AONB at Kessingland and thereby intervened between LCT 29 and the shoreline. As is clear from the map below (Figure 4) this is not the case.  Consequently, we now realise that the advice we provided for the s42 consultation (included below for reference) was incorrect. *'Although views out to sea are partially obscured by the intervening ridge of shingle and do not contribute to the character of this LCT we wish to see evidence to confirm this. We do not recognise the*	<u>LCT 29 Covehithe Broad and Easton Broad</u> The Applicant maintains that the effect of the Project windfarm site on the perceived character of LCT 29 Wooded Fens (Covehithe Broad and Easton Broad) is not significant as a whole, as set out in the ES. Following the site visit on 23rd June 2019, the Applicant also noted that the eastern edges of LCT 29 extends to the shoreline to cover part of the shingle/dunes area that is typically part of the LCT 05 (Coastal Dunes and Shingle Ridges), however these consist of short sections of shoreline associated with LCT 29, of approximately 400m at Covehithe Broad; and 800m at Easton Broad. Although these locations have a distinctive character as areas where these two broads meet the coast, they are not representative of the overall character of these wooded fens, which extend further inland as coastal valleys with extensive bodies of water, grazing marsh and plantation woodlands on higher ground surrounded the broads. During the site visit with NE of 23rd June 2019, the Applicant noted that the majority of the LCT extends inland of these short coastal edges, at low level, consisting of low lying valley floor of marshland and areas of open water. These areas are contained by the gradually rising landform of adjacent land. The Applicant noted that land at 'Green Heath', forming the southern part of Covehithe Cliffs, provides screening of views out to sea from within Covehithe Broad. Further visual containment is also provided within the low-lying broads of the LCT by extensive reed beds and marsh habitat, which contain views. There is also limited access to people to these wet valley floors of Covehithe and Easton broads where there is

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	description contained in 28.3 Table A28.1 p.6 'substantial intervening screening provided by wooded fen' for this LCT at Covehithe Broad' Because LCT 29 extends to the shoreline we consider the effect of EA2 to be the same as that for LCT 07 Area A and therefore significant.	considerable amount of water either in drainage ditches or wider open broads, which afford limited opportunity to people to perceive changes occurring in the wider landscape context. The general perception when alongside these areas of water is of being contained 'within' the landscape, with the exception of the short sections of the LCT at the shoreline where there are wider views of the sea that contributes to the character of the coastal edges of the LCT. The LCT description in the Suffolk Landscape Assessment recognises the amount of woodland screening provided around these wooded fens, including the *'larger amounts of plantation woodlands on the higher ground surrounding them'* and that the broads are *'framed by woodland on the rising ground around them'.* The Applicant recognises that this is particularly applicable to Benacre Broad, and only partially applicable to the areas of Covehithe Broad further inland, where woodland lines the southern side of the broad and provides substantial screening. The Applicant notes that the Estate Sandlands LCT 07 Area A, referred to by NE, has a more elevated landform at the coast, including sections of low cliffs with more exposure to changes in panoramic views of the sea and is not directly comparable to the changes which may occur to the perceived character of the Wooded Fens LCT 29. While the Applicant notes the potential for changes to the perceived character of small areas of the coastal edges of the LCT with offshore sea views, on balance the effects of the Project windfarm site on the perceived character of the Wooded Fens LCT 29, particularly on its key characteristics, are considered to be of medium-low magnitude and are assessed as not significant.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
EA2 Comments on the AONB Special Qualities		
Table 4:	**Table 4: Summary of Natural England's position based on Table 28.10 of the ES**	With regards to effects on AONB Special Qualities, the Applicant notes considerable agreement between the ES impact assessment and NE on the Special Qualities that may experience significant and not significant effects. The Applicant notes disagreement on the SLVIA impact assessment (presented within ***Chapter 28*** of the ES (APP-076)) for six special qualities, which NE considers to be significantly affected: 1. Landscape Quality - Influence of incongruous features. 2. Scenic Quality - Appeal to the senses; Sensory stimuli and 'big Suffolk skies'. 3. Relative Wildness - Sense of remoteness; pockets of relative wildness. 4. Relative Wildness - Sense of remoteness; largely undeveloped coastlines. 5. Relative Wildness - Sense of passing time and a return to nature. 6. Relative Tranquillity - Distractors from tranquillity.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments

AONB Special Qualities	Environmental Statement Judgement (construction and operational phases)	Natural England's position
Landscape Quality		
Intactness	Significant	Agree
Condition of features	Not Significant	Agree
Influence of Incongruous features	Not Significant	**Disagree**
Scenic Quality		
Distinctive sense of place	Significant	Agree
Striking landform – sea cliffs and shingle beaches	Significant	Agree
Striking landform – coastal cliffs, shingle beaches and estuaries	Not Significant	Agree
Visual interest in patterns of land cover	Not Significant	Agree
Appeal to the senses – Interrelationship of features	Not Significant	Agree
Appeal to the senses – large open vistas	Significant	Agree
Appeal to the senses – Sensory stimuli and 'big Suffolk skies'	Not significant	**Disagree**
Relative Wildness		
Sense of remoteness – absence road and rail routes	Not significant	Agree
Sense of remoteness – pockets of relative wildness	Not significant	**Disagree**
Sense of remoteness – semi-natural habitats	Not significant	Agree
Sense of remoteness – largely undeveloped coastlines	Not significant	**Disagree**
Sense of openness and exposure – big Suffolk skies	Significant	Agree
Sense of passing time and a return to nature	Not significant	**Disagree**
Relative Tranquillity		
Contributions to tranquillity	Not significant	Agree
Distractors from tranquillity	Not significant	**Disagree**

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
NE-3.8.1	The role of the seascape setting of the AONB in shaping and maintaining the special qualities of the area is a vital consideration and a critical component of the SLVIA. It is a key interest for Natural England. We therefore welcome this assessment for the evidence and clarity it provides and believe it will greatly assist in the determination of the scheme. The judgements contained in the landscape, seascape and visual assessments underpin the assessment of the effect on the special qualities of the AONB as they relate to the setting of the designation. We note the detailed assessment in Appendix 28.4 p.34 to 60 and make reference to the information in contained this document below. Natural England welcomes the additional evidence provided in the ES in respect of the special qualities Relative Tranquillity and Relative Wildness. We offer the following comments (which replace those provided for the s42 consultation) for where we disagree with the judgement as set out in the SLVIA of the Environmental Statement.	The Applicant notes feedback from NE on the clarity provided by the AONB special qualities assessment in the SLVIA, including the detailed assessment in ***Appendix 28.4*** of the ES (APP-559) p.34 to 60 (Table A28.3). The Applicant notes NE's comments where it disagrees with the judgement as set out in the SLVIA of the Environmental Statement and provides brief responses as set out below for each special quality.
NE-3.8.2	<u>Landscape Quality – Influence of Incongruous features</u> We disagree with the magnitude of change judgement of medium-low. We consider the change to be at least medium and the significance of effect should be significant. We note the reference to the 'cluttered horizon' created by the Galloper, Greater Gabbard, Gunfleet Sands and London Array OWFs which are visible from the southern portion of the AONB i.e. eastward to southwards from Ordford Ness as objects on the horizon. The	The Applicant maintains that the effect of the Project windfarm site on this special quality is of medium-low magnitude and not significant, for reasons as set out in the ES (***Table A28.3, Appendix 28.4*** (APP-559)) and with further commentary provided below. This particular AONB landscape quality is distinct from other qualities described because it recognises the influence of existing 'incongruous' features on the perceived beauty of the AONB. In particular, it refers to the military site at Orford Ness, the Sizewell A and B Nuclear Power Stations

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	SLVIA has judged the effect of EA2 on the majority of landscape and visual receptors located in the northern portion of Orford Ness as significant and therefore adverse. This northern portion of the seascape setting of the AONB is currently free of fixed man-made features. The introduction of wind turbines into this seascape can only spread the influence of such incongruous features into an otherwise naturalistic vista. The statutory purpose of the AONB is the conservation and enhancement of natural beauty; the seascape setting of the designation greatly contributes to its natural beauty and hence its statutory purpose. Offshore wind turbines which are predicted to have significant adverse effects do not contribute to this statutory purpose i.e. they will not conserve or enhance the seascape setting of the AONB. They will appear as incongruous man-made features and in-effect replicate in the northern area, the cluttered horizon of the southern portion, and with a visual effect judged to be significant. At para. 208 p.67 this claim is made that the turbines; *'…may also be seen to represent the visual aesthetic of green / sustainable energy which may be perceived as having positive visual associations with the natural environment'.* Whilst this statement may reflect the opinion of some people it should have no bearing on the determination of the scheme. The policy test for determining EA2 is set by NPS 1 and 5 with reference of the statutory purpose of the AONB.	and offshore wind turbines at Greater Gabbard and Galloper. The inclusion of these 'incongruous' features as a defined quality of the AONB demonstrates that the AONB is not an entirely 'unspoilt' landscape and that such development influences can become part of the landscape quality or distinctiveness of place, without necessarily resulting in harm to its statutory purpose. Although the construction and operation of the Project windfarm site will increase the influence of visible development in offshore views, these will from some areas occur in the context of existing incongruous elements or features. In some localised areas, such as close to Sizewell or close to the Orford Ness Transmitting Station towers, these elements are present to a significant degree and considered to be visually intrusive on parts of the AONB. Although the northern portion of the seascape setting of the AONB is less influenced by 'fixed man-made features', the wider landscape is not entirely without development influence. Often the wider views to the north extend to take in the developed coastline between Kessingland and Lowestoft, with urban areas, tall buildings, commercial development and the Lowestoft Ness Point wind turbine influencing this part of views north; while the massing and dome of Sizewell A and B power stations are often visible as a focal feature in views south along the AONB coastline. The fact that the natural beauty of the AONB is influenced by a small number of large scale and long established elements on the coast of the AONB is salient and relatively unusual, in the national context, for an AONB to include such influences of incongruous features or elements as an indicator in its key qualities.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		In the context of the other recognised development influences and features, the construction and operation of the Project windfarm site is not considered to be 'incongruous'. Although it may extend the influence of wind energy development in offshore views, it is generally in keeping with these other aspects of the surroundings and not overtly unusual to what is already present in the setting of parts of the AONB, and that is defined in this special quality. While there are locations where its visual effect, or perceived effect on character, is recognised in the ES as being significant, this does not in this instance translate to a significant effect on this particular landscape quality, which relates particularly to development influences. The changes associated with the construction and operation of the Project windfarm site are not considered to be visually 'intrusive' in their context, which would necessitate an uncomfortable disrupting influence, or inward projection of effects on the AONB. The Project windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape, and is not in this sense considered to be 'intrusive'. On balance, the effect of the Project windfarm site on this particular special quality is considered to be of medium-low magnitude and not significant, as assessed in the ES. The Applicant considers that although the Project windfarm site will result in additional influence of offshore wind energy development in the perceived character of the AONB, it will not necessarily impair, harm or change significantly the perception of this

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		landscape quality, in adding to what is already described as the 'cluttered horizon' from 'some stretches of the coastline'.
3.8.3	<u>Scenic Quality - Appeal to the senses; Sensory stimuli and 'big Suffolk skies'</u> We disagree with the magnitude of change judgement of medium-low. We consider the change to be at least medium and the significance of effect should be significant. Big Suffolk skies do not stop at the coastline. They extent out over the sea, and like the seascape setting of the AONB, contribute to the natural beauty of the designation. At night, in the northern portion of the AONB, these skies are free of fixed marine lighting and this, combined with the generally unlit coastline, allow for extensive areas of the dark night sky to be experienced. As acknowledged these dark skies contribute to the natural beauty of the AONB. Although located just above the horizon the safety and navigation lighting associated with each turbine will detract from these dark skies by providing points of fixed lighting which, in the case of the aviation lighting will also flash. This lighting will extend out over a considerable distance. As illustrated in figures 28.28g and 28.37f these lights will be clearly visible from the coastline. In the southern portion of the AONB the 'big Suffolk skies' which extend out to sea are already influenced by the navigation lighting associated with the Greater Gabbard, Galloper and the lesser extent Gunfleet Sands and London Array OWFs. Because coastal shipping (such as ships awaiting to enter the port of Felixstowe) is more	The Applicant maintains that the effect of the Project windfarm site on this special quality is of medium-low magnitude and not significant, for reasons as set out in the ES (***Table A28.3, Appendix 28.4*** (APP-559)) and with further commentary provided below. In relation to the 'Big Suffolk Skies' it is notable that due to the relatively flat land of Suffolk and the features visible within it there may be up to around 180 degrees of sky visible from open locations along the coast. As demonstrated in the analysis of apparent height (Table 1), the Project turbines may be apparent over less than 0.5 vertical degrees of this arc, a very small proportion of the big skis, and occurs at its very edge (i.e. at the horizon). The vertical height of the wind turbines relative to the 'big Suffolk skies' will be relatively small / moderate in scale, due to their long distance offshore (over 32km) and the large scale of the seascape. The Applicant notes the numerous other influential development elements on the land within the AONB influence the 'Big Suffolk Skies' to a greater degree than would the Project windfarm site when viewed from their local environment. These include, for example, the existing Sizewell A and B Nuclear Power Stations; the tall communications masts at Orford Ness Transmitting Station; and even urban development within localised areas of the main sea front towns within the AONB which occupy foreground views of the sky; compared to the much more distant Project windfarm site on the sea skyline.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	associated with this southern portion the contribution of these array's is not so pronounced. The lower height of these turbines, when compared to those used in the worst case scenario for EA2, also assist in this regard. However, the influence of marine traffic on the seascape setting of the AONB is less pronounced in the northern portion. Extending the influence of fixed marine lighting into the northern portion will therefore result in the loss of this important characteristic in this part of the seascape setting of the AONB. We also note that big Suffolk skies contribute to the 'sense of openness and exposure' (under the Relative Wildness special quality) which has been judged to be adversely effected by EA2. See Chapter 28 at 28.7.3.2.3.6 page 71.	The Applicant agrees that aviation lighting from the existing offshore wind farms and coastal shipping (such as ships awaiting to enter the port of Felixstowe) influences seaward views at night from the southern portion of the AONB. This is particularly the case from the southern coastline of the AONB, however visible aviation lighting of existing wind turbines has been recorded as being clearly visible from night-time viewpoints as far north as Aldeburgh during the SLVIA. As described in the earlier responses on apparent height (NE 2.5 – 2.9), in views from the southern portion of the AONB, the apparent height of EA2 turbines is similar or less than Greater Gabbard and Galloper, therefore the lower blade tip height of these existing turbines makes little difference to the effect of aviation lighting on this southern part of the AONB, since their apparent height would be similar to the Project (at 300m), as Greater Gabbard and Galloper are closer to this section of coast. The influence of lighting of marine traffic on the seascape setting of the AONB may be less pronounced in the northern portion, but is still apparent, with many large vessels being visible on the sea skyline at night, including vessels using the nearby port of Lowestoft approximately 8km to the north of the AONB. Lit vessels can be seen in the night-time photomontages from Kessingland Beach, for example, in Figure 28.26f of the ES (APP-356); and from Southwold in Figure 28.28g (APP-358). While the Applicant notes that many areas of the AONB have low levels of light at night, there are several coastal areas of the AONB that have brighter night lights, particularly around the main towns at Kessingland Beach, Southwold, Sizewell, Leiston, Thorpeness and Aldeburgh, as well as several airfields, and main transport routes further inland. Lighting from

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		these existing developments within the AONB has an influence on the dark skies of the AONB at night including views from the coastline. As described in response to NE 3.4.1, the opportunity to see wind turbine aviation lights and perceived 'natural beauty' is a relatively short window while features can still be discerned in clear sky conditions during the civil twilight period, when levels of available light are reducing. The Applicant is of the view that natural beauty (of the AONB) cannot be perceived at night-time when the sky is dark. The assessment of the special qualities of a designated landscape cannot be made at night-time during the dark, other than an appreciation of the dark sky qualities that may apply to an area, which is essentially a visual or experiential/perceptual quality. While dark skies may therefore be valued by people viewing the night-sky, they do not in themselves *'contribute to natural beauty'*. While aviation lighting will provide points of fixed lighting in views offshore from the AONB coastline, as described in the ES, the night-time assessment and worst-case photomontage representations assume full lighting intensity of the 2000 candela (cd) warning lights in very good to excellent visibility conditions, as a worst-case. As described in paragraph 38 (page 10) of the SLVIA, the Project windfarm site will incorporate mitigation measures in respect of turbine aviation lighting. Aviation warning lights will allow for reduction in lighting intensity to a minimum of 10% (i.e. 200cd) when visibility from every wind turbine is more than 5km. On balance, considering all of these factors and the assessment set out in the ES (***Table A28.3, Appendix 28.4*** (APP-559)), the Applicant considers that the influence of the Project windfarm site will not result in the loss of

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		the fundamental characteristics that contribute to 'Big Suffolk Skies' in the seascape setting of the AONB.
3.8.4	<u>Relative Wildness - Sense of remoteness; pockets of relative wildness</u> We disagree with the magnitude of change judgement of medium-low. We consider the change to be at least medium and the significance of effect should be significant. This special quality is particularly associated with the undeveloped sections of the coastline in the northern portions of the AONB. We consider that the wind turbines of EA2 will detract from this special quality in this area due to their apparent size and, to a lesser extent, lateral spread. They are likely to lessen the experience of relative wildness through the introduction of incongruous made-man features into an otherwise undeveloped seascape.	The Applicant maintains that the effect of the Project windfarm site on this special quality is of medium-low magnitude and not significant, for reasons as set out in the ES (***Table A28.3, Appendix 28.4*** (APP-559)) with further commentary provided below. The indicator for this sense of remoteness experienced within the AONB is defined in the AONB special qualities report as being 'Distant from, or perceived as distant from, significant habitation'. Clearly, the Project windfarm site will not increase the proximity of habitation to the AONB or influence its remoteness in that sense, however it may, as recognised in the ES, increase the perceived influence of apparent human activity as result of the introduction of other modern, man-made structures in the seascape setting. The East Suffolk coastline is an area that has been transformed by the impact of people, including coastal settlement, which has reduced the sense of remoteness to 'pockets of relative wildness' within the AONB and has a long-established inter-relationship between people using and interacting with the sea/maritime environment. The influence of other non-fixed elements in the seascape such as large commercial vessels is readily apparent. Relative wildness is a product of people's perceptual response to certain physical attributes in the landscape. 'Physical attributes' and 'perceptual responses' are therefore used as the measure by which changes in experience are assessed.

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		Due to the location of the Project windfarm site outside the AONB, no physical attributes contributing to wildness special qualities will be changed, for example it will not introduce modern artefacts into the AONB itself, nor directly change the land use or its landform features, nor will it make a remote area of the AONB more accessible (such as through the introduction of roads or access tracks associated with development). Since it cannot directly change the physical attributes of the AONB, the Applicant considers that the location of the Project windfarm site 32.5km outside the AONB boundary makes it unlikely to experience changes of medium or high magnitude to its relative wildness. The construction and operation of the Project windfarm site may only affect perceptual responses of wildness, i.e. people's perception evoked by physical attributes, such as the sense of sanctuary or solitude, sense of remoteness, sense of awe or anxiety, or inspiring qualities of the landscape. The Applicant considers that only in exceptional circumstances relating to scale, siting or design will development outside the AONB have a significant effect on its relative wildness, for example, if the development were located particularly close to the coastline boundary of the AONB within its immediate seascape setting; or being of such large scale that its apparent size resulted in immediate and fundamental change to the experience of relative wildness within the AONB. As demonstrated in the earlier analysis of apparent height (Table 1), the Project turbines will occupy less than 0.5 vertical degrees, which constitutes a very small vertical angle and apparent size, and not one that would be considered as having a particularly intrusive effect on the sense

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		of remoteness experienced from pockets of the AONB coastline in the northern portions of the AONB. Although the Project windfarm site may be visible in the seascape setting of the AONB and therefore not completely dissociated with it, at distances over 32km it is considered to be relatively remote from the AONB in terms of its distance and therefore its subsequent influence on the experience of remoteness within the AONB is diminished. This particular AONB special quality relates to the sense of remoteness, which is experienced from 'pockets of relative wildness associated with the coast, estuary and forests'. The geographic locations of these 'pockets' are not defined in the AONB special qualities report, however they are considered in the ES assessment as relating particularly to the pockets of open coastal fens and estuaries/marshlands near the coast. The ES (Appendix 28.4, Table A28.3, p47) (APP-559) found that *'the visual containment of these low lying estuaries and fens of the AONB by the intervening raised dunes and shingle landforms along their eastern edge, reduces their association and the resulting changes arising from the East Anglia TWO windfarm site. The introduction of wind turbines in the coastal backdrop located well outside and at distance (over 32km), removed from the association of the sea (which is often not visible), would constitute a new, but relatively minor alteration to perceived wildness of the coast, estuaries and forests, at variance to the relatively undeveloped, flat, open and simple character of the LCT, but removed from and in the background to the main elements that define character'*. By definition of 'pockets of relative wildness', the geographic extent of changes to the sense of remoteness is not widespread, and will be very

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		limited to these isolated 'pockets', with the vast majority of the AONB landscape experiencing negligible changes to the sense of remoteness perceived. Overall, the changes identified do not affect the sense of remoteness perceived within the AONB to the degree that the qualities are substantially eroded and are therefore considered to be not significant.
3.8.5	<u>Relative Wildness - Sense of remoteness; largely undeveloped coastlines</u> We disagree with the magnitude of change judgement of medium-low. We consider the change to be at least medium and the significance of effect should be significant. Built development along the coastline is well confined and with the exception of Sizewell Nuclear Power station of a small scale; both in terms of height and lateral spread along the coast, with very few buildings extending above two storeys in height. The seascape setting of the designation greatly contributes to this sense of remoteness with the OWFs of Greater Gabbard, Galloper, London Array and Gunfleet Sands not significantly detracting from it. Due to the greater height, and to a lesser extent lateral spread of EA2 array, the northern portion of the seascape setting of the AONB is likely to lose a sense of having an undeveloped coastline. As presented in the ES the turbines of EA2 will provide not only a sense of enclosure but also a clear indication of built intrusion into an otherwise naturalistic seascape setting.	The Applicant maintains that the effect of the Project windfarm site on this special quality is of medium-low magnitude and not significant, for reasons as set out in the ES (***Table A28.3, Appendix 28.4*** (APP-559)) and with further commentary provided below. The Applicant notes an error in the AONB special quality quoted by NE in this comment. NE identify the special quality as 'Sense of remoteness; largely undeveloped coastlines', however the AONB special qualities report describes it as 'Relative wildness; relative lack of human influence'. The Applicant considers that the NE's error in the title for this special quality heightens the importance of the coastline element. The Applicant notes that 'Largely undeveloped coastline and offshore areas' is the key area of relevance, but it is noted as one aspect of many other indicators of the relative lack of human influence, including semi-natural habitats, isolated villages, built heritage assets and a small number of large scale and industrial elements. Although visible from the coast, the Project windfarm site will not physically introduce development into the AONB coastline and will not render it largely developed. The Applicant would expect that a development would need to have such a fundamental change to this special quality to be significant. The effects of the Project windfarm site are relevant on the 'largely undeveloped…. offshore areas', as perceived from the coast. As assessed in the ES, the lateral spread of the Project

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		windfarm has been notably reduced through embedded mitigation, with a lateral spread of between 26-30 degrees in views from the AONB coastline, which is a relatively small portion of the wider panorama of offshore area viewed from the AONB. The open sea skyline would remain unaffected across the majority of the skyline, such that offshore areas viewed from the coastline will remain largely undeveloped. The apparent height of the turbines is relatively small and would not provide a sense of enclosure, due to the large portion of the big skies that will remain undeveloped. Overall, it is considered that a relative lack of human influence will continue to prevail and influence the perceived wildness of the AONB, with large areas of uninterrupted land and sea with few built elements and occasional industrial or urban influences, such that the addition of the Project windfarm site will be not significant.
3.8.6	Relative Wildness - Sense of passing time and a return to nature We disagree with the magnitude of change judgment of medium-low. We consider the change to be at least medium and the significance of effect should be significant. We advise that the significant adverse landscape and visual effects resulting from the construction and operation of EA2 will not contribute to the sense that nature is returning to the AONB.	The Applicant maintains that the effect of the Project windfarm site on this special quality is of medium-low magnitude and not significant, for reasons as set out in the ES (***Table A28.3, Appendix 28.4*** (APP-559)) and with further commentary provided below. The Applicant considers that the rationale for significant effects identified by NE on the 'sense of passing time and a return to nature' are not sufficiently justified. Although it is accepted that it is unlikely that the Project windfarm site would contribute to the sense that nature is returning to the AONB, since it does not directly influence the land use within the AONB, the Applicant considers that this does not result in change to this quality of such magnitude that it would be considered significant.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		The Applicant considers that effects of development on 'a sense of the passing of time' in the landscape is one of the more abstract qualities defined in the AONB special qualities report. A sense of the passing of time being evident in landscape is arguably more likely to be gained in a landscape where both historic and modern elements form aspects of character and can be perceived and understood in the same landscape where the is a visible time depth and also seasonal changes. The inherent character, together with historic changes relating to human activities and more recent modern interventions can then be experienced and appreciated together. The indicator described for this special quality in the AONB special qualities report refers to landscape and seascape, along the coastline, where there is 'little evidence of apparent human activity'. These may be landscapes in which a perceived naturalness and sense of earlier times may be experienced, but this does not necessarily equate to a sense of the passing of time. A sense of the passing of time could be increased by the presence of an offshore wind farm, such as where modern wind turbines are viewed in combination with an old windmill, for example at Westwood Marshes Mill, where the passing of time between old and new methods of harnessing the wind will be evident in the experience of this coastal landscape. Although there are areas of semi natural landscape and seascape along the coastline, as assessed in the ES, many of the coastal marshes and landscapes along the coast have been subject to modification and human intervention over time, with the draining of marshes for grazing and introduction of sea walls. The limited amount of settlement in some areas also belies the previous extent of occupation of parts of the coast, the

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		former settlements/ports of Sizewell and Dunwich having been lost to the sea. The introduction of the Project offshore windfarm site will increase the evidence of apparent human activity as a modern intervention in the distant, but not immediate, seascape setting of the semi-natural landscapes of the AONB, however the changes identified are not considered to significantly affect the sense of passing time perceived within the AONB to the degree that these existing qualities are substantially eroded and are considered to be not significant.
3.8.7	<u>Relative Tranquillity - Distractors from tranquillity</u> We disagree with the magnitude of change judgment of medium-low. We consider the change to be at least medium and the significance of effect should be significant. The opportunity to experience tranquillity in a naturalistic environment is influenced by many factors. Things which detract from the potential of a place to provide this experience are varied but include seeing / hearing people, seeing traffic and hearing traffic noise and seeing vertical structures. Offshore wind turbines fall into this latter category which also includes electricity pylons and telecommunication towers. All 3 of these structures are currently present in the landscape and seascape setting of the AONB and all act as detractors, although some detract more than others. The OWFs of Greater Gabbard, Galloper, London Array and Gunfleet Sands, due to reasons already set out, provide only a limited detraction. Natural England advices that it is likely that the turbines of EA2, as defined in the ES, will act as a significant detractors for the northern portion of the AONB. In certain locations, such as beaches of Covehithe and Minsmere, the presence of these structures in the	The Applicant maintains that the effect of the Project windfarm site on this special quality is of medium-low magnitude and not significant, for reasons as set out in the ES (***Table A28.3, Appendix 28.4*** (APP-559)) and with further commentary provided below. The perception of tranquillity, and the factors which may influence this state of tranquillity are particularly subjective, and it is an area where different assessors may conclude different findings. GLVIA3 defines tranquillity as 'A state of calm and quietude associated with peace, considered to be a significant asset of landscape'. Whilst this is the case the Applicant considers that the windfarm site would need to have a much more intrusive or overbearing effect if it were to significantly affect tranquillity. The turbines would not be audible at this range and the revolution of the blades would be slow and even, which could be considered to be 'calm' by some people, although this is also likely to be highly subjective. The Applicant considers that in order to have a significant effect on tranquillity, the turbines would require to be audible and/or viewed in close proximity, with large vertical scale, surrounding and prevailing visual

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	seascape will significantly reduce the opportunity to experience relative tranquillity in this part of the AONB.	movement of the rotor blades, which will not occur. Changes of this nature would influence opportunities to experience a sense of tranquillity as the windfarm element would over-ride the naturalistic elements in the landscape that are the basis for calm and tranquillity. The Applicant is of the view that the opportunity to experience tranquillity in a naturalistic environment will not be changed to a significant degree by the Project windfarm site, located over 32km away from the AONB at its closest point. Other natural heritage features will prevail and continue provide opportunities to experience a sense of relative tranquillity within a natural environment, i.e. a peaceful, calm state, without noise in a natural setting. This includes locations such as the beaches of Covehithe and Minsmere.
Comments on Viewpoints and Visual Receptors		
3.9	In keeping with our comments provided in our response to the s42 consultation NE restricts its advice to those visual receptors most associated with the statutory purpose of the AONB i.e. enjoyment of the natural beauty afforded by the designation. For simplicity we have coded these receptors as follows: A. Beach users. B. Walkers and cyclists. C. People sitting / viewing from seafront benches. D. Visitors / Tourists (Dunwich, Minsmere, Thorpeness, Aldeburgh, Orford Ness).	The Applicant notes that NE restricts its advice to those visual receptors most associated with the statutory purpose of the AONB.

<table>
<tr><th>Point</th><th>Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project</th><th>Applicant's Comments</th></tr>
<tr><td>Table 5

3.9.1</td><td>Table 5: Summary of Natural England position based on Table 28.11 of ES
<table>
<tr><th>Viewpoint</th><th>Separation Distance (km)</th><th>Environmental Statement Judgement (construction and operational phases)</th><th>Natural England's position</th><th>Visual Receptor Groups</th></tr>
<tr><td>3 Covehithe</td><td>33</td><td>Significant</td><td>Agree</td><td>A</td></tr>
<tr><td>4 Southwold</td><td>32.6</td><td>Significant</td><td>Agree</td><td>A, B, C</td></tr>
<tr><td>5 Gun Hill, Southwold</td><td>32.6</td><td>Significant</td><td>Agree</td><td>A, B, C</td></tr>
<tr><td>6 Walberswick</td><td>33.2</td><td>Significant</td><td>Agree</td><td>A, B, C</td></tr>
<tr><td>7 Dunwich</td><td>34.6</td><td>Significant</td><td>Agree</td><td>A</td></tr>
<tr><td>8 Dunwich Health Coast</td><td>34.7</td><td>Significant</td><td>Agree</td><td>B, D</td></tr>
<tr><td>9 Minsmere Nature Reserve</td><td>35.2</td><td>Significant</td><td>Agree</td><td>B, D</td></tr>
<tr><td>10 Sizewell Beach</td><td>34.8</td><td>Not Significant</td><td>Disagree</td><td>A, B</td></tr>
<tr><td>11 Suffolk Coastal path between Sizewell and Thorpeness</td><td>34.8</td><td>Significant</td><td>Agree</td><td>A</td></tr>
<tr><td>12 Thorpeness</td><td>35.1</td><td>Significant</td><td>Agree</td><td>A, B, D</td></tr>
<tr><td>13. Aldeburgh</td><td>35.9</td><td>Significant</td><td>Agree</td><td>A, B, C, D</td></tr>
<tr><td>18. Orford Ness (Lighthouse)</td><td>37.4</td><td>Not Significant</td><td>Disagree</td><td>D</td></tr>
</table>
Our advice provided at s42 remains the same for those visual receptor groups at those viewpoints listed in the table above where we agree with the judgement in the ES SLVIA.

Where we disagree with the judgement in the ES SLVIA we offer the following comments. These comments have been updated following the site visits undertaken in the summer of 2019.</td><td>With regards to effects on viewpoints and visual receptors, the Applicant notes considerable agreement between the ES impact assessment and NE on the viewpoints and visual receptors that may experience significant and not significant effects. The Applicant notes that NE's advice at s42 remains the same for visual receptor groups at viewpoints where there is agreement with the judgement in the ES SLVIA.

The Applicant notes disagreement only on the ES impact assessment for two viewpoints:
• Viewpoint 10 Sizewell Beach
• Viewpoint 18 Orford Ness

The Applicant notes NE's comments where it disagrees with the judgement as set out in the ES SLVIA and provides responses regarding these two viewpoints below.</td></tr>
<tr><td>3.9.2</td><td><u>Viewpoint 10 Sizewell Beach</u>
We disagree with the judgement of no significant effects as set out. In all other instances the sensitivity of 'beach users' and 'walkers on the SCP' (and similar groups) is high; this includes at viewpoints 4, 5, 13, A and D which are either urban or semi-urban in character. Natural England sees no justification in lowering the sensitivity of this group</td><td>The Applicant maintains that the effect of the Project windfarm site on 'beach users' and 'walkers on the SCP' is not significant as set out in full in Appendix 28.5 (APP-560) Viewpoint 10 (Page 47-49).

The Applicant considers that the presence of Sizewell Nuclear Power Station has a material influence on the assessment from this viewpoint.</td></tr>
</table>

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	at this location to medium on the premise that the presence of Sizewell nuclear power station would reduce their expectations, and hence the sensitivity, of these groups. The sensitivity for these groups at this location should be assigned as high. It could be argued that the opportunity to experience an open undeveloped seascape, as an alternative to the nuclear power station, means that such views are valued more by these receptor groups at this location. We advise that the significance of effect for these 2 receptor groups at this location is significant.	As described in the SLVIA, the prominence of Sizewell A and Sizewell B Nuclear Power Stations, associated National Grid electrical pylons and its intake and outfall structures in the nearshore waters affects the existing scenic qualities and setting of the view from Sizewell Beach. The scenic interest in the view arises from the juxtaposition of perceived 'natural' qualities of the dune/shingle coast and open sea, with Sizewell A and Sizewell B Nuclear Power Stations, as well as associated National Grid electrical pylons and offshore structures, which form visible contrasts in the view. The view has lower scenic qualities relating to the content and composition of the visible landscape than other parts of the AONB. Sizewell Power Station has a substantial and profound effect on the visual amenity of the Sizewell Beach area. People continue to use the beach and the coastal path for recreation, however viewers are likely to have different expectations about visual amenity experienced in this area compared to people visiting other areas of the AONB coastline, where development influence is less. Viewers' attention and interest may also be focused on the power station itself, and less focused on the view offshore, due to its scale, form and interest as a dominant feature in the landscape, coupled with people's curiosity with viewing the power station at close range. All of these factors contribute to lowering the sensitivity of the receptors experiencing the view at this location, to medium, compared to the higher sensitivity experienced by people at more remote/natural parts of the

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		AONB coastline. Sensitivity of visual receptors to change, as set out in GLVIA3 and in the ES methodology (Appendix 28.2) (APP-557), is derived from both the value attached to views and the susceptibility of visual receptors to change. The susceptibility of visual receptors to change includes both 'the occupation or activity of people experiencing the view at particular locations' and 'the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations' (GLVIA3 P113). The existence of Sizewell A and Sizewell B Nuclear Power Stations in the views, as part of the baseline, influences susceptibility by creating an alternative interest in the views from this location and also reduces the visual amenity experienced at this particular location – thus reducing people's susceptibility to the proposed change in the view and as a result, also reducing the sensitivity of the visual receptors. The SLVIA also assessed the magnitude of change resulting from the East Anglia Windfarm Site as medium-low in this viewpoint. In addition to the magnitude factors relevant at all viewpoints, such as the distance, apparent height and lateral spread of the windfarm site, in Viewpoint 10, the SLVIA notes that the windfarm site will be viewed in the context of more prominent energy infrastructure influences at Sizewell A and Sizewell B Nuclear Power Stations and its offshore intake and outfall structures in foreground. The concrete hulk of Sizewell A and white dome of Sizewell B are a key landmark and exert a strong influence on the view. The scale of the buildings dominates the local landscape in the view such that other landscape features, including the Project offshore windfarm, feel

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		smaller and less significant. This scale effect of Sizewell Power Station is noted in the Touching the Tide landscape assessment. The assessments on the sensitivity and magnitude of the visual effects were combined to allow a judgement that the effect on this particular viewpoint (Viewpoint 10) at Sizewell Beach, on balance was not significant, as set out in full in ***Appendix 28.5*** (APP-560) Viewpoint 10 (Page 47-49).
3.9.3	<u>Viewpoint 18 Orford Ness</u> The judgement for this location in the PEIR was significant (PEIR Appendix 28.4 p.71). We assume that the revised design has resulted in the array being 200m closer to the location of this viewpoint, but with a reduced lateral spread (37.8 to 27.1 degrees). This revision has resulted in a judgment of not significant within the ES. However, we note that significant landscape effects (LCT 06) are predicted to extend to a point approximately 1.25km north of the location of this viewpoint. The reasoning in the ES is essentially the same as that provided in the PEIR, although we note the additional text in the ES. Our concerns remain in relation to: The Galloper and Greater Gabbard arrays occupy approximately 40 degrees (or 22%) of the visible seaward horizon (based upon a visible horizon which extends to 180 degrees). The visual effect of these structures is judged not significant, a conclusion NE agrees with. EA2 would occupy a further 27 degrees (15%) of the visible horizon meaning that offshore structures would occupy 37% the seascape setting off this location. Although clear sight lines to the horizon would be available between these structures a sense of enclosure would nevertheless be apparent in views out to sea. NE	The Applicant maintains that the effect of the Project windfarm site on visitors to Orford Ness is not significant as set out in full in ***Appendix 28.5*** (APP-560) Viewpoint 18 (Page 71 - 73). The Applicant considers that the reduced lateral spread (37.8 to 27.1 degrees) has contributed to a reduction in the magnitude of change to medium-low, resulting on balance, to a judgement of not significant within the ES. The Applicant considers that the presence of Galloper and Greater Gabbard windfarms also have a more notable influence on the assessment from this viewpoint and that the introduction of the windfarm site represents a lower degree of contrast / higher degree of integration of these new features with the existing windfarm elements and characteristics that are more prominent in this view than others. The Applicant notes that NE consider that the visual effect of Galloper and Greater Gabbard windfarms is judged not significant. The Applicant considers that the combined Galloper and Greater Gabbard windfarms are likely to have a greater visual effect than the Project in this particular viewpoint from Orford Ness (Viewpoint 18), noting the following:

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	considers the cumulative effect i.e. Greater Gabbard plus Galloper plus EA2 would be contrary to the statutory purposes of the AONB as these structures would be seen to dominate views out to sea (from the northeast through to south east) thereby detracting from the natural beauty afforded by this location. Distant views (to the south southeast) of the London Array and Gunfleet Sands OWF have been discounted. We disagree with the assertion that the 'vertical height of the turbines will be relatively moderate in scale' and the statement 'the turbines (300m …at 37.38km) will appear similar in height to the Galloper turbines 180.5m… at 29.3km)'. Using the SNH formulae we calculate that the EA2 turbines are likely to appear taller than the Galloper turbines by a factor 1.239.8 Rather than appear to be similar in height we consider that they will appear 24% taller. We disagree that the existence of the Galloper and Greater Gabbard arrays provides justification for the EA2 application. These structures do not have a detrimental effect on the seascape setting of the AONB at this location. We agree that EA2 *'would not form an entirely new type of visible development but will instead tend to be seen in the context of existing wind turbines on the horizon and result in a northerly extension to this influence'* but note that this northerly extension will be a significant increase in the space occupied (from 22% to 37%) and use turbines which are and will appear substantially taller. NE advises therefore that it is incorrect therefore to assign a 'medium-low magnitude of change' judgement on this basis.	• Greater Gabbard/Galloper occupy 40 degrees of the visible seaward horizon (13 degrees more than the Project); • They are located 25.0km (Greater Gabbard) and 29.3km (Galloper) from the viewpoint (9-13km closer than the Project); and • The Greater Gabbard/Galloper turbines have a very similar apparent height as the Project turbines (EA2 0.365˚; Greater Gabbard 0.350˚; Galloper 0.301˚) (see below table). The Applicant notes NE comments that the cumulative effect resulting from the combination of Greater Gabbard, Galloper and the Project, however would contest that in combination they would 'dominate' views out to sea. The term 'dominant' suggests an effect which has a commanding or prevailing influence, which is not representative of the scale of effect arising from the offshore windfarms, at distances of 25km (Greater Gabbard), 29km (Galloper) and 38km (the Project). The wide expanse of sea would, in the Applicant's opinion, remain the most influential feature of these views. The Applicant has calculated the apparent height of the Project, Greater Gabbard and Galloper turbines in Viewpoint 18 as follows: **Windfarm** | **Turbine height (blade tip) (m)** | **Minimum distance to Vp 18 (km)** | **Visible height (m)** | **Apparent height of closest turbine (˚)** East Anglia 2 | 300 | 38.3 | 244 | 0.365

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	We accept that determining the significance of effect for this viewpoint is a finely balanced judgement, which is reflected in both the PEIR and ES through differing combinations of factors. In this instance, and in consideration of the unique character of this location, we advise that a precautionary approach should be adopted. Therefore Natural England disagrees with the revised judgement and advises that the significance of effect on the receptor group visiting this location is significant.	<table><tr><td>East Anglia 2</td><td>250</td><td>38.3</td><td>194</td><td>0.290</td></tr><tr><td>Greater Gabbard</td><td>134</td><td>25.1</td><td>153</td><td>0.350</td></tr><tr><td>Galloper</td><td>180</td><td>29.3</td><td>154</td><td>0.301</td></tr></table> The Applicant notes that the apparent height of the 300m Project turbines would be similar to the apparent height of the Greater Gabbard turbines; and marginally higher than the Galloper turbines. This similarity in apparent height is evident in the wireline visualisation in Figure 28.42b-c of the ES (APP-372). The Applicant considers that the austere simplicity and unique scenic qualities afforded by this location would still be appreciated by visitors, even with the addition of a further windfarm element on the visible seaward horizon. The SLVIA notes that wider views of Orford Ness include other development influences, including structures associated with the military use of Orford Ness and the tall communications masts at Orford Ness Transmitting Station. The Applicant notes and agrees that determining the significance of effect for this viewpoint is a finely balanced judgement and notes that the effects are near the threshold of significance. On balance, the Applicant considers that the assessments on the sensitivity and magnitude of the visual effects combined to allow a judgement that the effect on this particular viewpoint (Viewpoint 18) at Orford Ness Lighthouse is not significant, as set out in full in ***Appendix 28.5*** (APP-560) Viewpoint 18 (Page 71 - 73).

<table>
<tr><th>Point</th><th>Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project</th><th>Applicant's Comments</th></tr>
<tr><td></td><td></td><td>The Applicant considers that there is likely to be a transition between impact thresholds to the north of Orford Ness, where significant landscape effects (LCT 05c) and visual effects (Viewpoint 14, Aldeburgh) are predicted to the north of this Orford Ness viewpoint, with reducing separation from the Project windfarm site.</td></tr>
<tr><td colspan="3">Comments on the Suffolk Coast Path</td></tr>
<tr><td>Table 6</td><td>Table 6: Summary of Natural England position based on Table 28.13 of ES
<table>
<tr><th>Suffolk Coastal Path</th><th>Environmental Statement Judgement (construction and operational phases)</th><th>Natural England's position</th></tr>
<tr><td>Section 03</td><td>Not significant</td><td>Agree</td></tr>
<tr><td>Section 04</td><td>Significant</td><td>Agree</td></tr>
<tr><td>Section 05</td><td>Significant</td><td>Agree</td></tr>
<tr><td>Section 06</td><td>Significant</td><td>Agree</td></tr>
<tr><td>Section 07</td><td>Not significant</td><td>Disagree</td></tr>
<tr><td>Section 08</td><td>Significant</td><td>Agree</td></tr>
<tr><td>Section 09</td><td>Not Significant</td><td>Agree</td></tr>
<tr><td>Section 10</td><td>Not Significant</td><td>Agree</td></tr>
<tr><td>Section 11</td><td>Not Significant</td><td>Agree</td></tr>
</table></td><td>With regards to effects on walkers on the SCP, the Applicant notes considerable agreement between the ES impact assessment and NE on the sections of the SCP where users may experience significant and not significant effects.

The Applicant notes disagreement only on the ES impact assessment for one section:
Section 07 Minsmere and Sizewell.</td></tr>
<tr><td>3.10.1</td><td><u>Section 7 Minsmere and Sizewell</u>
We disagree with the judgement of no significant effects as set out. Figure 28.23b clearly shows that for a significant portion of the path within this section (07) EA2 will be visible, with the predicted number of blade tips being visible in the banding 51 to 60.

The commentary on p.19 states that the development will be visible from 3.6km of this 6.1km section (58%) 'of the route'. Although this is technically correct this fails to acknowledge how people use the path</td><td>The Applicant notes there will be visibility of the Project windfarm site for a portion of this section of the Suffolk Coast Path. Although the defined route of the path generally follows a route along the grassy ridge on the inland side of raised shingle/dunes, which provide partial screening of the sea, the Applicant accepts that on parts of the route, people have freedom to deviate from the defined route and, for example, walk along the shingle ridge where views are more open. The assessment of the SCP necessitated an assessment of views experienced from the route itself, as defined by the digital dataset that defines the route of the SCP. The Applicant recognises that this is a practical assessment limitation when</td></tr>
</table>

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	and the how the creation of the English Coastal Path will allow people greater freedom in their use of this route. The landscape through which this section of the SCP passes (in the south LCT 07 moving northwards into LCT 06) allows users to either follow the actual route of the path or detour should they wish to walk along sections of the shingle ridge (LCT 05) in order to enjoy views out to sea. On the landward side of the shingle ridge the path wanders through a broad grassy ride which narrows further north as Minsmere is encountered. Opportunities to access the ridge are frequent and there are no impediments to do so. To assume that all users of the path remain on the actual route (as marked on OS maps) throughout this section, and thereby not take opportunities to either walk on the shingle ridge or climb it to enjoy views out to sea is incorrect. The creation of the English Coastal Path, particularly the creation of the Coastal Margin, is very likely to formalise this type of usage. We note that for path users heading north the sensitivity is considered medium-high and for those heading south medium. We disagree with this assertion that the sensitivity of users is reduced due to the presence of the Sizewell nuclear power station; in essence that their expectations have been reduced because of the presence of Sizewell. See also our comments at point 24 for viewpoint 10.	assessing approximately 87km route of the SCP through the study area, otherwise the scope for assessing 'desire lines' or open access in areas which deviate fromthe defined SCP route becomes almost open-ended. Notwithstanding this assessment limitation, the Applicant maintains that the effect of the Project windfarm site on walkers on Section 07 of the SCP (Minsmere and Sizewell) along with minor deviations from the defined route is not significant as set out in full in ***Appendix 28.6*** (APP-561) (Page 19-21). The Applicant considers that the presence of Sizewell A and Sizewell B Nuclear Power Stations has a material influence on the assessment of Section 7 of the SCP and would point to the factors set out above in response to Viewpoint 10 at NE 3.9.2 with regards sensitivity and magnitude, as being material to the consideration of significance for this section of the SCP. Section 7 of the SCP (including minor deviations from it) has very direct close-range views of Sizewell Power Station from most of its length and at its closest section passes immediately alongside the power station for 1km between Sizewell Beach and Minsmere. The influence of Sizewell Power Station on this section of coast is recognised in the Touching the Tide LCA (2012) Suffolk Coast and Heaths AONB: *'The construction of Sizewell A power station was started in 1961. Today the complex comprises two power stations and exerts a strong influence across this section of the coast. In close proximity to the power station the scale of the buildings and associated power lines dominate the landscape*

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
		such that other landscape features and activities feel small and insignificant'.
Further EA2 Detailed Comments		
Comments on cumulative effects		
3.11.1	The ES SLVIA for EA1N judges that there are no significant landscape and visible effects resulting from this scheme despite the use of turbine technology identical to that used in EA2. The separation distance of the EA1N scheme from the coast of the AONB is greater than that of EA2 and the lateral spread smaller when viewed form the coastline. Natural England agrees with this conclusion although notes that opportunities exist to reduce these effects further through the use of shorter turbines. In our Relevant Representation for EA1N we have stated that 250m turbines would have approximately the same apparent height of those of the Greater Gabbard OWF; 270 degrees and 275 respectively. See below:	The Applicant notes agreement that the East Anglia ONE North windfarm site results in no significant landscape and visual effects. The Applicant notes this threshold of significance for East Anglia ONE North, which has a narrower lateral spread, is further from the coast of the AONB and therefore has a smaller apparent turbine height when viewed from the coast. The Applicant notes the same limitations with the calculations made in the table to the left, as raised in response to Table 1 (in NE-2.5 to NE-2.8 above), i.e. that the analysis relies on one observer height (eye level) set at 6.5m. It uses the closest distance offshore of each windfarm and compares the visible height/apparent height of each based on this closest distance. It is a hypothetical position, since in reality there are no viewpoints where East Anglia ONE North is viewed simultaneously with Greater Gabbard and Galloper at these distances offshore. The analysis also uses the closest distance of EA1N as 40km. The Applicant notes that EA1N is 37.7km to the AONB at its closest point and 38.3km to the closest AONB viewpoint (Viewpoint 2). The Applicant has calculated the apparent height of the East Anglia ONE North, Greater Gabbard and Galloper as follows:

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments

Array	Visible Turbine Height ASL (blade tip) (m)	Apparent Height of Turbine (˚)	Actual Turbine Height (blade tip) (m)	Distance offshore (km)
Greater Gabbard	115	**0.275**	134	25
Galloper	155	**0.309**	180	29
EA1N	239	**0.342**	300	40
EA1N (250m)	189	**0.270**	250	40
EA1N (200m)	139	**0.199**	300	40

The EA2 ES SLVIA predicts that significant cumulative effects for the following receptors;
LCTs; 05 (Area C), 06 (Area B) and 07 (Area A)
Viewpoints; 3, 4, 5, 6, 7, 8, 9, 11, 12 and 13

NE also advises that significant cumulative landscape effects are also likely for:
LCT 29 Covehithe Broad and Easton Broad

NE also advises that significant cumulative visual effects are also likely for viewpoint 10. In addition significant cumulative effects are predicted for the Suffolk Coastal Path on
Sections: 04, 05, 06 and 08

Windfarm	Turbine height (blade tip) (m)	Minimum distance	Visible height (m)	Apparent height of closest turbine (˚)
East Anglia 1N	300	38.3*	242	0.363
East Anglia 1N	250	38.3*	192	0.288
Greater Gabbard	134	25.1*	153	0.350
Galloper	180	29.3*	154	0.301
*from closest AONB viewpoint				

The Applicant considers that for East Anglia ONE North, 300m turbines would have approximately the same apparent height of those of Greater Gabbard; and 250m turbines would have approximately the same apparent height of those of Galloper (from the closest AONB viewpoint to each windfarm).

The Applicant notes NE agreement on the majority of receptors where significant cumulative effects of the Project and East Anglia ONE North are predicted in the ES, with the exception of:

- LCT 29 Covehithe Broad and Easton Broad.
- Viewpoint 10 Sizewell Beach.
- Section 07 of the Suffolk Coast Path.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	NE also advises that significant cumulative effects are also likely for section 07. The use of lower turbines (250m) for the EA1N scheme would assist in reducing the cumulative effects predicted in the EA2 SLVIA. The possibility for this should be explored by the applicant in order that further embedded mitigation is introduced into the design of the EA1N scheme which would help reduce the adverse effects predicted for the EA2 scheme. We note at para. 24 p.7 that the *'design envelope would allow a mixture of turbine sizes to be used in the final detailed design'* and suggest that the use of shorter turbines (250m) at the western edge of the EA1N development area is likely (based upon the apparent height measurements provided above) to assist in reducing the significant cumulative effects predicted in the EA2 and EA1N ES SLVIAs. Please refer also to our comments made in respect of 'good design' above.	The Applicant notes NE's recommendation to explore the use of lower turbines (250m) for the EA1N scheme, as a way of reducing the cumulative effects predicted in the Project SLVIA. The Applicant considers that since there is agreement that the project alone East Anglia ONE North effects are not significant, further mitigation of the turbine height for East Anglia ONE North is not required.
Comments on summary and conclusions		
3.12.1	Natural England restricts its comments to those statements where we disagree with the applicant's assessment or where we wish to provide clarity on the implications of a statement as presented.	This is noted by the Applicant.
3.12.2	Para 325 We note the increase in the minimum of separation distance to 32.6km and the increase in separation distance from the coast at viewpoints 3, 4, 5 and 6. We also note the decrease in separation	Please refer to the Applicant's response at NE-3.3.4. The Applicant has provided a clarification regarding the reported decrease in separation distance to the Project windfarm site between PEIR and ES for some viewpoints in Table 28.3 of ***Chapter 28*** of the ES (APP-076). The

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	distance for viewpoints 7, 8, 9, 10,11,12,13 and 18. Based on these 12 locations the average separation distance remains unchanged at 34.5km.	Applicant can confirm that there is no difference in the separation distance of the PEIR and ES windfarm site boundary from Viewpoints 7 – 18. The Applicant would therefore reason that the revised design does provide embedded mitigation in terms of proximity to the coast, given that there is an increased separation from northern viewpoints 3, 4, 5, 6, 19, 20, 21, 22 and no decrease in separation distance for southern viewpoints.
3.12.3	Para 331 We are unsure of the point that this paragraph is seeking to make.	Paragraph 331 seeks to make the point that the aspect of character which the Project windfarm site may change relates to one specific aspect of character, concerning offshore sea views. There are many other key characteristics of these LCTs that will not be changed or affected, which will continue to define their landscape character.
3.12.4	Para 329 We advise that significant landscape effects are very likely to occur in respect of the setting of LCT 29 and wish to see an assessment of this LCT.	Please refer to the Applicant's response at NE-3.7.4.
3.12.5	Para 332 We disagree that effects on AONB special quality 'big Suffolk Skies' are not significant.	Please refer to the Applicant's response at NE-3.8.3.
3.12.6	Para 336 We agree that the additional effects that the EA1N scheme contributes to the cumulative effects of the two schemes is small. However we note that there opportunities to lessen this contribution through the use of shorter turbines. NE does not consider that the combined lateral spread of the two arrays is likely to result in significant adverse visual effects. The	The Applicant notes agreement that the contribution of East Anglia ONE North to the cumulative effects of the two schemes is small. The Applicant also notes that NE consider that the combined lateral spread of the two windfarm sites is unlikely to result in significant adverse visual effects and that the reduction in the lateral spread of the Project windfarm site has eliminated the possibility of a 'curtaining effect'.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	reduction in the lateral spread of the EA2 array has eliminated the possibility of a 'curtaining effect' where views of the horizon are obscured due to the apparent merging of the EA1N and EA2 arrays.	The Applicant considers that since there is agreement that the project alone East Anglia ONE North effects are not significant, further mitigation of the turbine height for East Anglia ONE North is not required.
3.12.7	Para 339 Natural England accepts that there is capacity within SCT 06 Offshore Waters to accommodate further windfarms provided that the technology selected and design of the layout, particularly the distance from the coastline of the AONB, is sufficient to avoid significant adverse landscape and visual effects which are detrimental to the statutory purpose of the designation.	The Applicant notes and welcomes NE's advice regarding the capacity of SCT 06 Offshore Waters to accommodate further windfarms.
3.12.8	Para 340 Natural England notes the incompleteness of some of the statements in the 2nd, 3rd, 5th and 4th bullet points of this paragraph. For the 2nd bullet we note that significant landscape and visual effects are predicted to extend for at least 35km along the coast for the majority of this distance. Due to the technology selected in the worst case scenario we disagree with the statement in the 3rd bullet point. At the 4th bullet point the statement made at paragraph 155 (Chapter 28 p.46) is needed to clarity the statement made here; *'It (EA2) will however result in changes to the seascape character, perceived from the land, particularly that portion of the Offshore Water LCT (06) which forms the seascape setting of the AONB'*	The Applicant considers that the statements in the 2nd, 3rd, 4th and 5th bullet points of this paragraph are complete. Responses are provided to each bullet as follows: 2nd bullet: The Applicant notes the spatial extent of effects extending along the coastline, but would re-iterate that this is a narrow strip, avoiding widespread effects on the AONB further inland. 3rd bullet: The Applicant notes that at 3.12.7, NE recognise some inherent capacity of SCT 06 Offshore Waters to accommodate further windfarms. 4th bullet: The Applicant refers to paragraph 155 in full to provide further clarification of the statement made here. 5th bullet: The Applicant requests further clarification as to why the phrase East Anglia TWO windfarm site is misleading.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix E –SLVIA – offshore elements of the project	Applicant's Comments
	In the 5th Bullet we advise that the phrase 'EA2 windfarm site' although factually correct is misleading. Natural England disagrees with conclusion of the final sentence as set out at the 7th bullet point. Natural England advises that the special qualities of the AONB will be adversely effected by this scheme. Although these effects will be confined to the northern portion of the designation's coastline, and will not affect every part of the AONB, they are nevertheless predicted to occur.	7th bullet: The Applicant notes NE's disagreement with the final sentence as set out, but maintains its position on this finding that the East Anglia TWO windfarm site will not result in harm to the Special Qualities of the AONB in overall terms.

4.18.2 All Other Matters

4.18.2.1 Site Selection and Assessment of Alternatives

Table 40 Applicant's Comments on Natural England's Relevant Representation (Site Selection and Assessment of Alternatives)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
Document used: 6.1.4 EA2 Environmental Statement Chapter 04 Site Selection and Assessment of Alternatives			
1.2.1	Although the decision to cross the Sandlings SPA at the narrowest section is welcomed, it should be noted the decision to HDD or trench through this section has yet to be determined. There is still the potential for impacts and disturbance to occur to species using the SPA despite this narrowest route.		The Applicant's preference is for an open-cut trenching technique to cross the Sandlings SPA. As noted in ***section 22.6.1.1.2 of Chapter 22 Onshore Ecology*** the onshore cable route will cross the Sandlings SPA at its narrowest point, towards the north of the SPA and the Applicant has committed to a reduced onshore cable route working width of 16.1m (reduced from 32m) within the SPA to minimise habitat loss. It is noted that a substantial portion of the open trench crossing is through a horse paddock. The Applicant will update the ***OLEMS*** with an outline of the timing of habitat creation areas (i.e. the 3ha of compensatory turtle dove feeding habitat and nightingale nesting habitat). The Applicant will submit an EMP for approval by the LPA in consultation with NE. In accordance with requirement 21 of the DCO this will include a SPA crossing method statement. Additionally, as agreed at a SoCG meeting with NE on the 19th of February 2020 the Applicant will produce an outline SPA Crossing Method Statement to be submitted during the examination that will provide further details on the methodology to be adopted for an open trench crossing, and for a trenchless technique (such as HDD).

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
1.2.2	Natural England queries if the removal of a section of woodland been fully considered within the ES? Signposting to this would be useful. Has the applicant considered alternatives to not removing the woodland? Will the woodland be replaced?		***Section 22.5.2*** of ***Chapter 22 Onshore Ecology*** (APP-070) covers the baseline for all woodland types within the study area, impacts upon woodland (including removals) are covered in ***section 22.6.1.4*** with the areas affected shown in ***Table 22.18*** of the chapter. Mitigation for impacts upon woodland is covered in ***Table 22.4*** of the chapter and ***sections 5.1***, ***6.2*** and ***6.3*** of the ***OLEMS*** APP-584). During the early stages of site selection, options were considered which would avoid removal of woodland at Aldeburgh Road, however these options were not taken forward, as discussed in ***section 4.9.1.2.4*** of ***Chapter 4 Site Selection and Assessment of Alternatives***. The initial site selection study area (which originally extended from the coast to Aldeburgh Road) was extended westward by considering removal of woodland and potentially crossing Aldeburgh Road, as recommended by the Site Selection ETG feedback in July 2017.
1.2.3	Although Natural England recognises the options of crossing the SPA, trenching or HDD, the Applicant needs to make it clear what the impacts will be if the EA2 and EA1N cable routes are put in sequentially rather than at the same time (see point 4 below). This applies to other scenarios such as Aldeburgh road woodland.		The two construction scenarios are compared in full in ***Appendix 23.2*** (-509), Scenario 2 (sequential) is deemed to be the worst case and this is carried into the assessment in ***Chapter 23 Onshore Ornithology*** (APP-071) (see ***section 23.7***). ***Table 23.20*** summarises the potential impacts of sequential construction.

4.18.2.2 Project Description

Table 41 Applicant's Comments on Natural England's Relevant Representation (Project Description)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
Document used: 6.1.6 EA2 Environmental Statement Chapter 06 Project Description			
1.2.4	It is not clear whether the cable corridor area described is intended for both EA1N and EA2, i.e. will all cable installation for both projects take place within the same 32m wide corridor or will there be 2x 32m cable corridors, one for EA1N and one for EA2? If the cable routes for both EA1N and EA2 are installed within the same 32m wide corridor, will this occur sequentially or at the same time?		The onshore cable route for the Projects is located within the Order Limits. The onshore cable route is independent for each Project and so there is flexibility around where each Project cable can be installed within the Order Limits. ***Chapter 6 Project Description*** (APP-054) illustrates the onshore cable route (i.e. construction area) for each project (see ***Plate 6.18***) which will be 32m for each project. The onshore cable corridor is identical for both Projects and the onshore cable route for each project must be located within this onshore cable corridor. The onshore cable route is reduced at certain points (e.g. at a number of Important Hedgerow crossings, where the onshore cable route reduces to 16.1m) and is increased at other points (e.g. to accommodate a trenchless crossing of the SPA,). ***Appendix 6.4*** (APP-453) describes the options for constructing both Projects, either concurrently or sequentially.

4.18.2.3 Marine Geology Oceanography and Physical Processes

Table 42 Applicant's Comments on Natural England's Relevant Representation (Marine Geology Oceanography and Physical Processes)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
Document used: 6.1.7 EA2 Environmental Statement Chapter 07 Marine Geology, Oceanography and Physical Processes			
2.2.1	Natural England advises that evidence needs to presented to support statements that the maximum volumes of sediment released from sea bed preparation is five times greater than is likely to be released by scour? This currently seems quite arbitrary to base the assessment of scour during the operational phase on. Does this only apply to near-surface sediments as indicated by table 7.3?		The worst-case maximum volumes of sediment released from seabed preparation during *construction* is calculated at 25,875m^3 for each wind turbine foundation and based on an assumed worst-case of the 300m wind turbine with a 60m gravity base basal diameter. ***Section 7.6.2.4***, paragraphs 273 and 274 of ***Chapter 7 Marine Geology, Oceanography and Physical Processes*** (APP-055) refer to previous studies in which the worst-case *operational* scour volume per turbine is 5,000m^3. As the Project has similar foundation types and sizes (and physical environment) to the previous studies this figure of 5,000m^3 is considered appropriate for the likely scour volume for the Project. 5,000m^3 is approximately one fifth of 25,875m^3. This figure only applies to near-surface sediments as it is those which will be released by scour.
2.2.2	Natural England welcomes the commitment by the Applicant to ensure sediment arising from any sand wave clearance would be deposited in locations which avoid sensitive features and enable sandwave recovery. These sensitive features are most likely to be Sabellaria spinulosa reef and by depositing the sediment within the vicinity of where it was dredged means the sediment will be retained within the		A separate clarification note regarding cross-receptor impacts on the Outer Thames Estuary SPA has been prepared and is provided in ***Appendix 5*** of this document.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
	sandbank system. Much of the cable corridor sits within the Outer Thames Estuary SPA and there is the potential for disturbance to this species during any proposed works. Likewise, these subtidal sandbanks are key feeding areas for designated features such as red-throated diver. Therefore, for works including disposal within the sandbank areas there will need to be an assessment of the impacts against the conservation objectives for the site.		
2.2.3	Assuming some of the cable protection will be laid within the SPA boundary, has the Applicant considered the loss of supporting SPA habitat for the designated features? This will need to be considered across several thematic areas including offshore ornithology, sediment transportation and benthic		
2.2.4	Natural England welcomes bullet point 2, to allow local scour around the piles to minimise the scour protection footprint. This will minimise the habitat loss due to additional scour protection.		Noted.
2.2.5	It is clear from this section (7.5.1.2 para 106-111) that both project sites exhibit large areas of sandwaves and megaripples. This suggests to Natural England that a significant amount of sandwave clearance may be needed. If so, then it is essential that the applicant sufficiently considers the impact of disturbance and prey availability upon the interest features of the Outer Thames Estuary SPA, plus the potential loss of *Sabellaria spinulosa* reef such as *Sabellaria spinulosa*		A separate clarification note regarding cross-receptor impacts on the Outer Thames Estuary SPA has been prepared and is provided in ***Appendix 5*** of this document. With respect to *Sabellaria spinulosa,* results from the side scan sonar survey carried out in 2018 (***Appendix 9.3 Benthic Factual Data Report*** (APP-460)) show that there is no evidence of *Sabellaria* reef in the offshore cable corridor. However, it is noted that side scan sonar data would need to

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
	which should be avoided by micro-siting where possible.		be ground-truthed with drop-down video in order to accurately determine the presence or absence of *Sabellaria* reef. As stated in ***section 9.3.3.1.4*** of ***Chapter 9 Benthic Ecology***, a detailed pre-construction geophysical survey will identify any areas of *Sabellaria* reef which are required to be avoided, as agreed with the MMO and secured through the ***Offshore In-principle Monitoring Plan*** (APP-590), submitted with the application material and Design Plan which will be submitted post-consent. Regarding disturbance to *Sabellaria* reef from sand wave levelling, sediment arisings from sand wave clearance in the offshore cable corridor would be deposited back within the offshore cable corridor at locations which avoid any *Sabellaria* reefs (if their presence is determined from pre-construction surveys) (as described in ***section 9.3.3.2.3 of Chapter 9 Benthic Ecology***). Agreement is being sought for a single disposal site encompassing the offshore cable corridor which avoids overlap with existing disposal sites (***Site Characterisation Report (Offshore Cable Corridor***) (APP-593)). However, the Applicant will consult with the MMO and their advisors post-consent on the results of the preconstruction surveys and any sensitive features that may require avoidance during sediment disposal activity. No sand wave levelling / pre-sweeping or disposal is anticipated in the near shore section of the offshore cable corridor, subject to findings of the detailed pre-construction geophysical survey.
2.2.6	Paragraph 130 indicates that a relatively large area of the export cable corridor is predominantly silt. Has this change in sediment been fed into the impact		As described in ***section 7.5.6*** of ***Chapter 7 Marine Geology, Oceanography and Physical Processes***, grab samples collected within the offshore export cable corridor revealed the

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
	assessment to determine the impact of trenching cables within this area? A greater percentage of silt within the sediment will result in a more persistent suspended sediment concentration following disturbance.		majority of sediments to be slightly gravelly sand (using the Folk scale). The central section of the offshore cable corridor has the highest percentage of fines in samples collected with sediment mainly falling within the sandy mud classification on the Folk scale. Areas of the export cable corridor where silt is a greater sediment component are highly localised to the inshore area where trenchless (such as HDD) techniques will be used (see ***Figure 9.3a*** (APP-177)) however this has been incorporated into the assessment and the resulting conclusions in ***section 7.6.1.5*** regarding export cable installation and settlement rates (full dispersion of any plumes after 180 hours following cessation of installation activities). Jetting is considered the worst-case export cable installation technique since it results in the largest volume of suspended sediment being released from the sea bed and into the water column however based on experience from East Anglia ONE it is anticipated that the majority of cables would be installed using a ploughing method which is the cable installation method that gives rise to the lowest increases in suspended sediment concentrations**.**
2.2.7	Is there any site specific evidence from the EA One construction of the actual sediment concentrations that were experienced during foundation installation?		There were no requirements for suspended sediment concentration monitoring during construction of East Anglia ONE. The modelling and assessments for East Anglia ONE (and subsequently East Anglia ONE North and East Anglia TWO as per ***section 7.6.1*** of ***Chapter 7 Marine Geology, Oceanography and Physical Processes***) were informed by monitoring evidence from Nysted (Denmark) and Thornton Bank (Belgium) which used gravity base foundations (considered to be the worst-case).Thornton Bank has similar

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
			environmental conditions to the Project in terms of hydrodynamic and sedimentary environment. This is based on information in ***section 6.4.2.4.1*** of ***Chapter 7 Marine Geology, Oceanography and Physical Processes*** (APP-055) for East Anglia ONE.
2.2.8	Natural England clearly sees the benefits in assessing the worst case scenario for the impacts associated with the windfarm. However, for a greater perspective it would be interesting to understand the level of drilling that is likely to occur especially in these substrates. Can any predictions be drawn from EA One and the levels of drilling that occurred there?		With regard to the drilling of foundations, feedback from the East Anglia ONE team was that there was no requirement for East Anglia ONE, however it should be noted that ground conditions may differ at the windfarm site and therefore drilling for foundations may be required subject to the findings of the pre-construction site investigations.
2.2.9	Paragraph 180 states "the resulting mound would be a measurable protrusion above the existing sea bed (likely to be tens of centimetres to a few metres high)" This is a large range in the size of the potential mound that could be formed. It is not clear from the resulting text why this variation would exist. We assume it would be due to the varying sediment particle size from the drill arising, the sheer force of the foundations being installed or general sea bed preparation, however confirmation regarding this would be welcome. In addition the persistence of any mound/s would also need to be considered. If this is hard substrata then it would need to be potentially added to the in-combination assessment of any cable/scour protection; especially in relation to		***Section 7.6.1.2*** of ***Chapter 7 Marine Geology, Oceanography and Physical Processes*** (APP-055) refers to resulting localised mounds from suspended sediment from near-surface sediments as likely being tens of centimetres to a few metres high. This variation is likely across the windfarm site as the heights of mounds will depend on the prevailing physical conditions and underlying geology at each location. For sediment forming a passive plume, expert-based assessment suggests the thickness of these deposits across the wider area would be in the order of millimetres. With regards to persistence, any potential sediment mounds are expected to become re-mobilised and therefore would rapidly become incorporated into the mobile sea bed sediment layer, thereby reducing any potential effect (***section 7.6.1.2.1***

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
	potential impacts to the conservation objectives for the Outer Thames SPA.		of ***Chapter 7 Marine Geology, Oceanography and Physical Processes*** (APP-055)). In all cases the sediment within the mound would be similar to that on the existing sea bed. This would mean that there would be no discernible change in sea bed sediment type. Therefore, additional in-combination assessment with cable and scour protection is not considered necessary.
2.2.10	Although the overall sediment release volumes would be low and confined to near the sea bed; it is not clear if there has been an assessment of the impacts at varying depths? This may apply more to the export cable installation further inshore.		The assessments provided with respect to changes in suspended sediment concentrations and changes in sea bed level have taken into account differences in potential impacts at varying depths. The assessment for offshore export cable installation has been considered separately from those for the inter-array and platform link cables because parts of the offshore cable corridor are in shallower water and closer to the identified morphological receptor groups.
2.2.11	As highlighted above, a relatively large area of the export cable corridor is predominantly silt. There seems to be no assessment of how this would affect the dispersion and settlement rate, particularly in nearshore shallow waters and any designated sites. Further information would be welcome.		As described above, grab samples collected within the offshore export cable corridor revealed the majority of sediments to be slightly gravelly sand. The central section of the offshore cable corridor has the highest percentage of fines in samples collected with sediment mainly falling within the sandy mud classification on the Folk scale (***section 7.5.6*** of ***Chapter 7 Marine Geology, Oceanography and Physical Processes*** (APP-055)). Areas of the export cable corridor where silt is a greater sediment component are highly localised to the inshore area where trenchless techniques will be used (see ***Figure 9.3a***) however this has been incorporated into the assessment and the resulting

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
			conclusions in ***section 7.6.1.5*** regarding export cable installation and impacts on designated sites (which concluded **minor adverse** to **negligible** significance on Suffolk Natura 2000 site)**.**
2.2.12	Natural England queries if there is an opportunity to microsite jack up vessels legs if habitats of conservation interest are found in the area during pre-construction surveys?		Through the Design Plan (Condition 17 of the generation DML and Condition 13 of the transmission DML), the Applicant will set out how the Project has been designed and micro-sited around reefs and sensitive habitats which will be submitted to the MMO for approval.
2.2.13	Although the worst case scour volume of 50,000 m^3 is considerably less than the worst case volume of sediment released following sea bed preparation activities, this impact could be considered longer term as scour is likely to continue during the lifetime of the wind farm. It is not clear how this been considered and assessed by the applicant?		It is understood that the figure cited by NE is a typographic error and should be 5,000m^3. As described in ***section 7.6.2.4*** of ***Chapter 7 Marine Geology, Oceanography and Physical Processes*** (APP-055), the worst-case scour volume of 5,000m^3 has been assessed under a 1 in 50-year return period event (exceeding the lifetime of the Project) and under typical conditions, the volume of scour (in the worst case of no scour protection) will be much less than the worst-case assessed value of 5,000m^3. After each scour-inducing event (in the worst-case scenario of no scour protection being provided), the suspended sediment concentrations would rapidly settle within a few hundred metres of each foundation structure.
2.2.14	Table 7.31 concludes that the magnitude of effect on sea bed morphology due to the presence of foundations is high in the near field. Further expansion within this section on what this means for the receptors concerning this chapter would be useful. We understand the effect will be raised in other		As described in ***section 7.6.2.5 of Chapter 7 Marine Geology, Oceanography and Physical Processes*** (APP-055) the sea bed morphology would be directly impacted by the footprint of each foundation structure on the sea bed within the windfarm sites. This would constitute a 'loss' in natural sea bed area during the operational life of the Project. This direct footprint could be further increased due to the presence of

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
	chapters, but it is hard to understand what this magnitude means for this particular topic.		foundation structures and associated scour protection (which is the worst case when considered against scour hole formation). With the installation of scour protection, the sea bed would be further occupied by material (e.g. concrete mattresses) that is 'alien' to the baseline environment and which as a worst case would result in a maximum footprint of 1,719,856m^2, associated with GBS foundations. While the near-field magnitude of effect from this would be high, these effects are confined to within the footprint of scour protection (should it be provided) and would not cover the whole of the windfarm sites. The identified receptor groups[56] for this assessment are located remotely from the windfarm site and therefore, there is **no impact** associated with the proposed project on the identified receptor groups for this Chapter.
2.2.15	The Applicant identifies this impact (changes to the sea bed morphology due to the presence of foundation structures) as not having the potential for cumulative impacts, as the foundation structures affects a discrete area of seabed. However, in-combination with other windfarms and their associated foundation footprints could these discrete areas be combined to create a large overall impact?		The footprint effect is discrete to each turbine foundation location. The overall foundation area (1.5km^2 and 1.3km^2 for East Anglia TWO and East Anglia ONE North respectively) is low with respect to the total windfarm area (218.4km^2 and 208km^2 for East Anglia TWO and East Anglia ONE North respectively). When other wind farms are considered in-combination, the total sea bed area under consideration increases, so proportionally the effect still remains small. Therefore, no interactions with the other windfarms considered

[56] The sensitive 'East Anglia' coast, the 'Norfolk' Natura 2000 site, the 'Suffolk' Natura 2000 site, the 'non-designated sandbanks' and the Orford Inshore MCZ.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
			in ***Table 7.37*** of ***Chapter 7 Marine Geology, Oceanography and Physical Processes*** are predicted.
2.2.16	Natural England queries what is this accepted threshold of 5% and less for cumulative effect on baseline wave regime based upon? What are the predicted impacts of a greater than 2% increase upon the sensitive receptors for marine geology, oceanography and physical processes?		The figure of 5% is the agreed nominal threshold of significance for changes to the baseline wave climate. This was agreed with MMO, Cefas and NE following an Expert Topic Group meeting on the 18/10/2017. Under some wave approach directions, the zone of cumulative effect can impinge upon some of the identified sensitive receptors as presented in ***Figure 7.8*** (APP-110) of the ES. The effects under all approach directions are seen to extend over the greatest area under the lower (1 in 1 year) return period event for the reason associated with the higher (1 in 50 year) return period events having longer wave periods, which are less affected by the foundation structures. This is described further in ***Appendix 7.2 Individual Project and Cumulative Wave Modelling*** (APP-455). However, the magnitude of change in baseline significant wave heights across these zones of extended influence is <1% where it reaches the location of the identified receptors (***section 4.1.4.2***). This magnitude of change is therefore insignificant with regards to potential impacts.

4.18.2.4 Benthic Ecology

Table 43 Applicant's Comments on Natural England's Relevant Representation (Benthic Ecology)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
Document used: 6.1.9 EA2 Environmental Statement Chapter 09 Benthic Ecology			
3.2.1	Natural England wishes to highlight that the worst case scenario for benthic ecology should be related to the foundation type and not the blade tip height. We believe that this has been covered in the chapter so raises as a point to note to the examiner.		The Applicant appreciates the opportunity to clarify this point. Paragraph 17 explains that the worst case scenario for benthic ecology is based on either 67 or 75 wind turbines depending on the foundation types used. Maximum blade tip height references are provided to distinguish between the maximum number of each turbine type i.e. 75 x 250m blade tip height or 67 x 300m blade tip height wind turbines.
3.2.2	Natural England highlights that the Rochdale envelope remains all-encompassing including the use of Gravity Based foundations that have not been used in English waters to date. Therefore, we would question why these have continued to be included in the Environmental Statement (ES). Especially as it unrealistically skews some of the assessments.		Assessing a wide ranging design envelope ensures flexibility in the consent which is required to account for potential technology advancements during the long lead-in times to project construction. Gravity-base foundations are currently in operation in the UK at the Blyth offshore windfarm demonstrator project and there is potential that this foundation type could become used more widely in the future.
3.2.3	Please be advised that there should be a commitment that is secured in one of the DCO/DML reference docs relating to the clearance of boulders should be away from habitat of conservation important.		Through the Design Plan, Condition 17 of the generation DML and Condition 13 of the transmission DML, the Applicant will set out how the Project has been designed and micro-sited around reefs and sensitive habitats which will be submitted to the MMO for approval.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
3.2.4	Natural England supports the undertaking of sandwave levelling if as stated it reduces the need for cable protection. However, we do recognise that sandwave levelling activities (including sediment disposal), is likely to have a significant effect (LSE) on the interest features of the Outer Thames Estuary SPA and will need to be considered against the conservation objectives for the site in an Appropriate Assessment.		A separate clarification note regarding cross-receptor impacts on the Outer Thames Estuary SPA has been prepared and is provided in ***Appendix 5*** of this document.
3.2.5	We also welcome the commitment to avoid sensitive receptors when undertaking sandwave levelling works, but where possible sand should be disposed in similar particle sized areas.		Noted.
3.2.6	It would be helpful if the Applicant could provide context from East Anglia ONE in relation to the amount and location of cable protection placed along the export cable.		The East Anglia ONE project installed cable protection along 2.11% of its first export cable and 2.12% along its second export cable. This was mainly in areas of hard ground or at cable crossings.
3.2.7	Natural England notes that the placement of new cable protection over the life time of the project is not included in the assessment. Is this because a separate marine licence will be applied for at the time?		As per the Applicant's response to Point 2 of DCO, DMLs and Related Certified Documentation below, this matter is under consideration by the Applicant. Through the SoCG process, the Applicant has requested sight of the joint paper by the MMO and NE which the MMO state will offer guidance on the expected marine licensing requirements for such activities. Following review of this guidance, the Applicant will prepare a response on this matter.
3.2.8	Please be advised that the assessment of cable protection is not consistent with Natural England recent draft advice position paper as provided for Boreas examination. Please		This advice paper was submitted post-DCO application submission and therefore the Applicant considers that an updated assessment of cable protection is outwith the scope of

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
	see Appendix F2. Ideally drill arisings should be deposited in areas of scour protection against to turbines and/or similar habitats.		the application and disproportionate since the relevant assessments with regards to benthic ecology (see ***sections 9.6.1.1.2*** and ***9.6.2.1.2*** of ***Chapter 9 Benthic Ecology*** (APP-057) concluded impacts of no greater than **minor adverse** significance. It is noted that Appendix F2 states that cable protection installed during the operation period requires a new licence. As per the Applicant's response to Point 2 of DCO, DMLs and Related Certified Documentation below, this matter is under consideration by the Applicant. Through the SoCG process, the Applicant has requested sight of the joint paper by the MMO and NE which the MMO state will offer guidance on the expected marine licensing requirements for such activities. Following review of this guidance, the Applicant will prepare a response on this matter. Drill arisings will be deposited in areas of scour protection against turbines.
3.2.9	Please be advised that mitigation in the form of micro-siting is not normally secured as part of the In Principle Monitoring Plan. Further consideration should be given to how best to do this.		Through the Design Plan, Condition 17 of the generation DML and Condition 13 of the transmission DML, the Applicant will set out how the Project has been designed and micro-sited around reefs and sensitive habitats which will be submitted to the MMO for approval.
3.2.10	Please be advised that the 50m buffer around Sabellaria spinulosa reef outside of designated sites is consistent with the advice provided to the aggregates industry. However, we note that for East Anglia ONE that micro siting wasn't feasible at all locations. Please note that under NERC Act		Noted.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
	2006 Section 40 there is a duty to avoid impacts to priority habitats such as Sabellaria spinulosa.		
3.2.11	Natural England notes that no benthic ecology monitoring is proposed. However, this differs from what is outlined the In-Principal Monitoring Plan (Page 10, Table 2 within Section 1.6.4). Natural England agrees with the IPMP and advises that potential impacts to *Sabellaria spinulosa* reef areas will be required.		Noted, for clarification, the reference to no benthic monitoring is with regard to general benthic monitoring. However, as described in ***section 9.3.3.2.1 of Chapter 9 Benthic Ecology*** (APP-057), pre-construction surveys will be undertaken to identify *Sabellaria* reef upon which consultation on micrositing with the MMO and its advisors would be undertaken. The requirement for these pre-construction surveys is secured within condition 20 of the generation DML and condition 16 of the transmission DML and in the ***In-Principle Monitoring Plan*** (APP-590).
3.2.12	Please be advised that all reef is reef no matter the quality and is therefore protected as such.		See the response to Point 3.2.3.
3.2.13	Natural England welcomes the proposal to use horizontal directional drilling (HDD) under the beach to avoid impact to vegetated shingle, however, we query what would happen in relation to a bentonite outbreak?		The Applicant will produce an Outline Landfall Construction Method Statement (to be submitted as early as possible during the examination period) that will provide further details on the trenchless technique to be adopted at the landfall and will include details on how the risk of bentonite break-out would be reduced and break out contingencies in the event of a bentonite breakout.
3.2.14	Natural England notes that impacts to mapped sandbanks will be avoided. However, there remains an impact to 1,000,000m^3 of sediment, which is not small. It would therefore be useful know footprint/spatial extent to the impacts. However, at this stage we can advise that there		A separate clarification note regarding cross receptor impacts on the Outer Thames Estuary SPA has been prepared and is provided in ***Appendix 5*** of this document.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
	would be a LSE which would require further consideration as part of an Appropriate Assessment.		
3.2.15	Natural England notes that cable protection is proposed at the HDD exit point. Please be advised that there will need to be join up in relation to potential impacts to coastal processes and sediment transport.		The assessment of cable protection at the HDD exit point in relation to morphological and sediment transport pathways is provided in ***Chapter 7 Marine Geology, Oceanography and Physical Processes, section 7.6.2.7*** (APP-055). This concluded no impact on the relevant receptors.
3.2.16	Natural England doesn't support the view that reef on artificial substrate is Annex I reef. Please see Appendix F3 for our advice on the Boreas offshore windfarm application. But it is recognised that as the works are not within a designated site there is no legislation under pinning this advice.		Noted. For clarification, the Applicant has only stated that introduced hard substrate could be colonised by *Sabellaria* not that this newly colonised substrate would represent Annex I reef.
3.2.17	Inclusion of assessment for potential interactions between impacts is welcomed.		Noted.

4.18.2.5 Fish and Shellfish Ecology

Table 44 Applicant's Comments on Natural England's Relevant Representation (Fish and Shellfish Ecology)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
Document used: 6.1.10 EA2 Environmental Statement Chapter 10 Fish and Shellfish Ecology			
4.2.1	Although larval abundances between 2007- 2017 have been relatively low as described by Figures 10.15 to 10.17, there is little mention of the nursery grounds in relation to Herring. Figure 10.14 indicates that the cable corridor in particular is a high intensity nursery ground. Natural England would welcome further consideration of how impacts to nursey grounds may effect prey availability for the interest features of the marine protected areas.		An error in the data processing stage means that ***Figures 10.15, 10.16*** and ***10.17*** (APP-143, APP-144, APP-145) have now been updated with IHLS data from all three larvae surveys carried out in specific periods and areas, following autumn and winter (September, December and January) spawning activity of herring from north to south. These amended figures are shown in the Fish and Shellfish Ecology Clarification Note ***Figures 1-3 (Appendix 3*** of this document***)***. The impact on habitat loss for herring has been considered with sandeel in ***section 10.6.1.1.1*** of ***Chapter 10 Fish and Shellfish Ecology***. The impact is determined as ***minor adverse*** significance. Regarding impacts to nursery grounds potentially affecting prey availability, a separate clarification note regarding cross receptor impacts on the Outer Thames Estuary SPA has been prepared and is provided in ***Appendix 5*** of this document.
4.2.1a	Natural England also advises that the impacts of climate change, particularly the redistribution of species as a result, is considered within the assessments against the variety of species considered. Much of the spawning, nursery and larval abundance data ranges from 1998 to 2017.		Noted. Anticipated trends in baseline conditions have been included within ***section 10.5.7*** of ***Chapter 10 Fish and Shellfish Ecology*** (APP-058).

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
4.2.2	As raised in our Preliminary Environmental Information Report (PEIR) response, the reference used within this paragraph is very old, nearly 40 years. Is there any more recent evidence to show herring tolerance to elevated suspended sediment concentrations? Also what does Kiorboe et al. 1981 define as "short term" exposure?		In response to the NE PEIR comment in ***Appendix 10.1*** (APP-462) it was confirmed that an extensive literature review has been conducted which has not found any new studies with regards to effects of Suspended Sediment Concentrations (SSCs) on herring eggs. Best practice guidance will be followed at the time of construction which will account for any new research which may have been conducted in the interim. With regards to short term exposure, Kiorbie et al (1981)[57] exposed the eggs to silt (at day 2, 4 and 6 after fertilisation) kept in suspensions for 2 hours and then allowed to settle.
4.2.3	With regards to sand eels and their limited capacity to flee, Figure 10.14 highlights the site sits within the nursery and spawning grounds as defined by Coull et al. 1998 and low intensity nursery grounds as identified by Ellis et al. 2010. Is there any further site specific information to determine the likelihood of being in direct contact with sand eel habitat and linking this to the noise modelling impacts to have a greater understanding of the risk given to sand eels?		As described in ***section 10.2.4.3*** in ***Appendix 10.2*** (APP-463), Particle Size Analysis (PSA) data from benthic surveys undertaken across the former East Anglia Zone were analysed to provide an indication of the suitability of the offshore development area in terms of potential for provision of habitat for sandeel. This is shown in ***Figure 10.2.4*** of ***Appendix 10.2.*** As expected, given the sandy nature of the sediment across the offshore development area, preferred and marginal sandeel habitat was identified, with unsuitable areas identified at discrete locations particularly along the offshore cable corridor. It should be noted, however, that the habitat classification on which this analysis is based (Marine Space, 2013)[58] relies on sediment composition rather than evidence

[57] Kiørboe, T., Frantsen, E., Jensen, C. and Sorensen, G. (1981). Effects of suspended sediment on development and hatching of herring (Clupea harengus) eggs. Eastuarine, Coastal and Shelf Science. 13(1), 107-111.
[58] Marine Space (2013). Screening Spatial Interactions between Marine Aggregate Application Areas and Sandeel Habitat. A Method Statement produced for BMAPA.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
			of sandeel usage of the area. This is further supported by Jensen et al. (2011)[59] and ***Figure 10.26*** of the ES (APP-154) which shows that the main sandeel habitats do not overlap with the offshore development area. The presence of suitable sediment does not necessarily imply that sandeels are present or that a given area would ever be colonised by sandeels. ***Figure 10.41*** (APP-169) and ***Figure 10.3.8*** of ***Appendix 10.3*** (APP-464) display the noise impact ranges against sandeel nursery and spawning groups for both the fleeing and stationary animal model respectively. As discussed in ***section 13.5.6.1*** of ***Chapter 13 Commercial Fisheries*** (APP-059), analysis of VMS data for the sandeel fleet (***Figure 13.37*** (APP-218)) suggests that activity by sandeel industrial trawlers is mainly concentrated in areas such as the Dogger Bank (Central North Sea) and the Norwegian coast (Northern North Sea). Although not restricted to these areas activity is considerably lower in the Southern North Sea. In the offshore development area activity by these vessels occurs at negligible levels therefore it is very likely that there is a low presence of sandeels in the offshore development area. ***Section 10.6.1.4.1*** of ***Chapter 10 Fish and Shellfish Ecology*** (APP-058) details that sandeels are a fish species with no swim bladder or other gas chamber. These species are less susceptible to barotrauma and only detect particle motion, not sound pressure. ***Section 10.6.1.4.5.1*** assesses

[59] Jensen, H., Rindorf, A., Wright, P.J. and Mosegaard, H. (2011) Inferring the location and scale of mixing between habitat areas of lesser sandeel through information from the fishery, ICES Journal of Marine Science, 68(1), pp. 43–51.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
			the potential for mortality and recoverable injury on sandeel from piling and ***section 10.6.1.4.5.2*** assesses the behavioural impacts on sandeel from piling. Given sandeels' burrowing behaviour and substrate dependence, they may have limited capacity to flee the area compared to other fish species. They are therefore considered to be of medium sensitivity. Taking account of the spatial extent of the impact with the overall short duration of piling and its intermittent nature, together with the fact that any effect associated with Temporary Threshold Shift (TTS) and behavioural impacts would be temporary, the magnitude of effect for **all species** is considered to be low. This results in an impact of **minor adverse** significance for both mortality and recoverable injury and behavioural impacts on sandeel from piling. ***Section 2.4.2*** of ***Appendix 3*** discusses potential impacts on prey species such as sandeel and herring due to underwater noise.
4.2.4	Is there a reason why the applicant cannot commit to burying their cable to a minimum depth of 1.5m?		Cable burial depth presented in the Preliminary Environmental Information report was a minimum of 0.5m. In response to concerns expressed by Natural England in the Section 42 consultation over this depth and a request to increase burial depth to 1.5m, the Applicant made a commitment to increase burial depth to a minimum of 1m where possible against the argument that this was in line with current best practice and the engineering limitation based on the department for Business Enterprise and Regulatory Reform review of cabling techniques and environmental effects applicable to the offshore wind farm

Point	Taken from NE's Relevant and Written Representations EA2 Appendix F1 - All Other Matters	RAG Status Assigned by NE	Applicant's Comments
			industry (BERR 2008)[60]. Final details regarding cable installation will be provided to the MMO for approval in the cable laying plan secured under Condition 17(1) of the Generation DML and 13(1) of the Transmission DML which will include a detailed cable laying plan for the Order Limits, incorporating a burial risk assessment. This plan will be developed once detailed site investigation information has been collected post-consent.

[60] BERR. (2008). Review of Cabling Techniques and Environmental Effects applicable to the Offshore Windfarm Industry.

4.18.2.6 DCO DMLs and Related Certified Documentation

Table 45 Applicant's Comments on Natural England's Relevant Representation (DCO DMLs and Related Certified Documentation)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G – DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
Document used: 3.1 EA2 Draft Development Consent Order			
1	Natural England cannot agree to the definitions of "commence" and "offshore preparation works". As currently drafted the wording the work permits damaging works such as UXO detonation. The wording is also open to the inclusion of more activities than specified and thus could lead to works such as boulder removal, sandwave levelling, pre lay grapnel runs and a range of other potentially environmentally damaging works. These works could commence before the appropriate methodologies and documentation have been approved. As there would be no regulatory involvement it is not certain if pre construction surveys would be completed to sufficiently inform and agree micro siting requirements. Thus leading to an increased risk of impact to features of conservation value, such as biogenic reef. The words 'but not limited to' should be removed, as should reference to UXO detonation works.		In order to clarify the activities that fall within the definition of "offshore preparation works", the definition will be updated in the next version of the draft DCO as follows: *"offshore preparation works" means surveys, monitoring and UXO clearance ~~any activities within the Order limits seaward of MHWS~~ undertaken prior to the commencement of construction to prepare for construction~~, including but not limited to surveys, monitoring and UXO clearance.~~* The Applicant does not agree that reference to UXO clearance should be removed from the definition of "offshore preparation works" as such activities are assessed within the Environmental Statement and are controlled by the conditions of the DMLs. The DMLs do not permit any UXO clearance activities to be undertaken without the requirements of condition 16 of the generation DML and condition 12 of the transmission DML first being complied with which require the following to be submitted to and approved by the MMO: *(a) a method statement for UXO clearance which must include—*

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G – DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
			(i) methodologies for— *(aa) identification and investigation of potential UXO targets;* *(bb) clearance of UXO;* *(cc) removal and disposal of large debris;* *(ii) a plan showing the area in which clearance activities are proposed to take place;* *(iii) a programme of works;* *(b) a marine mammal mitigation protocol in accordance with the draft marine mammal mitigation protocol, the intention of which is to prevent injury to marine mammals, following current best practice as advised by the relevant statutory nature conservation bodies; and* *(c) an East Anglia TWO Project Southern North Sea SAC Site Integrity Plan for UXO Clearance which accords with the principles set out in the in principle East Anglia TWO Project Southern North Sea SAC Site Integrity Plan.* With regard to the risk of UXO clearance to *Sabellaria* reef, the pre-construction reef survey, secured under condition 20 of the generation DML and condition 16 of the transmission DML, will be undertaken prior to UXO clearance. Therefore, the plans submitted to the MMO for approval under condition 16 of the generation DML and condition 12

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G – DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
			of the transmission DML will include details of exclusion zones/environmental micro-siting requirements.
2	Natural England does not agree with the definition of "maintain". Specifically that works linked as ancillary works (listed in schedule 1 part 1) are part of maintenance. Works such as cable protection and scour protection deployment are construction activities which can have significant environmental impact. They should not be included within the definition of maintenance. Please see Natural England and the MMO positions on deployment of cable protection.		Under consideration by the Applicant. Through the SoCG process, the Applicant has requested sight of the joint paper by the MMO and NE which the MMO state will offer guidance on the expected marine licensing requirements for such activities. Following review of this guidance, the Applicant will prepare a response on this matter.
3	Arbitration: Natural England does not consider that it is appropriate for post-consent sign-off of DML conditions to be subject to arbitration. Natural England suggests that this wording be amended to that which was used by the Secretary of State (SoS) while deciding on this issue in the Tilbury 2 application. Natural England also refers to the representations and submissions on arbitration submitted during the recent Hornsea 3, Vanguard and Thanet Extension applications.		The Applicant considers it necessary to ensure that there is an appropriate appeals mechanism available to the undertaker during the process of discharging requirements of the DCO and conditions of the DMLs so that this nationally significant infrastructure project is not delayed due to the failure of discharging authorities to determine applications for approval within the agreed timescales. *DML conditions* The Applicant will therefore seek to modify the provisions of the Marine Licensing (Licence Application Appeals) Regulations 2011 so that they apply where the MMO refuses an application for approval under one of the conditions of the DMLs or

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G – DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
			alternatively where the MMO fails to determine an application within the timescales. This is to ensure that the undertaker has an appropriate appeals mechanism in order to resolve matters in a timely manner to reduce the risk of delays to the Project. *DCO requirements* The Applicant also intends to include a new schedule within the draft DCO which sets out a procedure in respect of the discharge of requirements which provides timescales for decisions to be made and an appeals process where an approval is refused or where the discharging authority fails to issue a decision within the timescales. This approach is in accordance with PINS Advice Note 15: Drafting Development Consent Orders and largely follows the text proposed by PINS within Appendix 1 of that Advice Note. This will not apply in respect of the discharge of conditions of the DMLs. *Arbitration* The Arbitration provisions are not intended to apply to decisions of the MMO in discharging DML conditions.
4	Many areas and volumes are given as m2 and m3, they should be m^2 or m^3		This will be updated in the next version of the draft DCO.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G – DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
5	No volumes or areas of cable protection are provided. Given the potential for significant impact from these works they should be appropriately recoded here. However, it is noted these volumes and areas are recorded within the DMLs. However, the Environmental Statement (ES) project descriptions have separate areas of cable protection for the cable crossings. Clarification is needed to explain whether these volumes are recorded within the totals provided within the DMLs or if they are additional to the DML volumes. If additional then these additional volumes should be recorded in the DCO/DML appropriately to ensure the maximums are clearly stated and enforceable. No volumes or areas of disposal are provided here. Maximum amount of disposal should be provided and split into hard substrate (drill arisings) boulder relocation and soft sediments (sandwave levelling and ground preparation). However, it is noted the total volumes are recorded within the DMLs and split according to activity. This application and project description includes detonation of UXO. If these works are to be licenced and given the significant potential for impact the maximum number of detonations and the maximum size of detonation (size of UXO in kg) should be recorded. These factors should also be recorded in the DMLs to ensure no works outside of the scope of the ES details take place.		Deposits (including of cable and scour protection and drill arisings, etc.) are licensable marine activities and are therefore regulated by the DMLs, There is therefore no need for these areas or volumes to be specified in Schedule 1 of the DCO. Such parameters should be specified in the DMLs only so that if there is any need to vary the figures in the future, they can be dealt with by way of a DML variation. Specifying these figures in Schedule 1 of the DCO may cause unnecessary difficulties in the event that the figures require to be varied. The Applicant's assessment has been based on a more realistic worst case scenario drawing on experience from the neighbouring East Anglia ONE project, rather than absolute worst case scenarios that may have assumed greater volumes and areas to mitigate a situation where the site investigation surveys demonstrate that sufficient cable protection and/or disposal has not been provided for. Given this approach, there is a significant programme risk associated with inclusion of such detailed parameters under Schedule 1, Part 3 of the DCO should any changes be required which necessitate an amendment to the DCO. Specifying deposit volumes and areas in the DMLs alone provides for full regulatory control and should any amendments to these figures be necessary, a DML variation will be required and any application for

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G – DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
			a DML variation will need to be supported by appropriate environmental information at that time. As with disposal activities, UXO clearance activities are regulated by the DMLs and there is no need for details of such activities to be included within Schedule 1 of the DCO. The DMLs include conditions requiring various documents to be approved by the MMO prior to UXO clearance activities being permitted to proceed. Details of the number and size of detonations will be set out within these documents for approval by the MMO and such details will be within the scope of the impacts assessed within the ES.
6	The relevant statutory nature conservation body should be named as a consultee on the updated Code of Construction Practice. This is to ensure the appropriate environmental considerations are provided within these documents.		The Applicant will consult with NE during the preparation of the Code of Construction Practice (CoCP) and the Outline Code of Construction Practice (OCoCP) will be updated to reflect this commitment. The Applicant does not consider it necessary to name NE as a consultee on the face of the DCO in respect of the CoCP.
7	The relevant statutory nature conservation body should be named as a consultee on the onshore decommissioning plan. This is to ensure appropriate ecological mitigation and considerations are made within the decommissioning works.		The Applicant will update requirement 30 (Onshore decommissioning) of the draft DCO to include the relevant statutory nature conservation body as a consultee in respect of the onshore decommissioning plan.
8	This requirement makes it clear that onshore connection works built under one order can only be built on one order and not both.		In accordance with the requirements of the draft DCO, the party constructing the grid connection

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G – DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
	However, Natural England questions if this requirement adequately ensures that any ongoing monitoring or mitigation works for those areas are clearly secured. Natural England considers it logical that the party who constructed the works should hold responsibility for any required ongoing requirements.		works will require to submit various plans and documents for approval prior to construction. Some of these plans will contain monitoring obligations for the construction and operational period and so the party constructing and operating the works will be required to comply with the monitoring commitments approved within the relevant plans and documents. The transfer provisions within Article 5 of the draft DCO make the exercise by transferees and lessees of any benefits or rights conferred by the DCO subject to the same restrictions, liabilities and obligations as would apply if those benefits or rights were exercised by the undertaker. Therefore, in the event of a transfer of benefits or rights under the DCO, any associated restrictions or obligations (such as construction or operational monitoring requirements) would also be transferred and the transferee would be required to comply with such obligations.
9	Definitions of "commence", "offshore preparation works" and "maintain" are not acceptable, see points 1 and 2.		See responses to Points 1 and 2 of DCO, DMLs and Related Certified Documentation above.
10	This condition requires a notification of completion of construction activities. Does this condition adequately ensure that no further construction activities can be undertaken under this DML? Natural England considers that this is a notification only. To ensure clarity on the end of the construction period and the start of the operation period and to appropriately trigger the post-construction		The Applicant does not consider that the condition proposed by NE is required for the following reasons: • Condition 17 of the generation DML and condition 13 of the transmission DML require submission of a construction programme which will define the construction period;

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G – DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
	conditions, Natural England considers that a separate condition may be needed to require the applicant to inform once all construction activities have completed and that no further construction works will be required under this licence. Recent projects have implied that as their DCO and DML has no requirement or condition ending construction they can complete construction activities throughout the lifetime of the project. Natural England does not consider this appropriate.		• Condition 10 of the generation DML and condition 6 of the transmission DML requires notifications to various stakeholders that construction is complete; Condition 17 of the generation DML and condition 13 of the transmission DML secure the requirement for an offshore operations and maintenance plan to be submitted to the MMO at least six months prior to commencement of operation which will provide details of the activities required during the operations and maintenance phase and will specify when the operational phase will commence.
11	Natural England notes the inclusion of these conditions to ensure removal of UXO can proceed without inclusion under commencement. However, these works also require consideration of potential benthic impacts, such as biogenic reef. The requirement to preform pre-construction surveys to inform micro-siting of cables must be included here to ensure appropriate mitigation. The current drafting has no timing requirements for submission. They need to be submitted a minimum of 6 months prior to the detonation of UXOs. However, Natural England considers this work to lead to significant duplication of effort for post-construction document approval. Therefore, Natural England advises inclusion of UXO within the definition of "commence" and the sign off of plans within the pre-construction conditions. Furthermore, Natural England considers that conditions should be added to DMLs ensure that:		*Reefs* As stated in the Applicant's response to Point 1 of DCO, DMLs and Related Certified Documentation above, the pre-construction reef survey, secured under condition 20 of the generation DML and condition 16 of the transmission DML, will be undertaken prior to UXO clearance. Therefore, the plans submitted to the MMO for approval under condition 16 of the generation DML and condition 12 of the transmission DML will include details of exclusion zones/environmental micro-siting requirements. *Submission of UXO plans* The Applicant proposes to submit the plans required under condition 16 of the generation DML and

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G – DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
	• Only 1 UXO is detonated across both EA2 and EA1N within a 24 hour period. • No piling will occur concurrent to the UXO detonation or within 24 hours of a detonation. • Only 1 piling event can occur across EA2 and EA1N within any 24 hour period. • A Co-operation Plan/Agreement will be required between EA1N and EA2 in the event that construction periods overlap. These are key mitigations proposed within the outline Site Integrity Plan (SIP) page 30 section 6.1 and should be appropriately secured through condition.		condition 12 of the transmission DML three months prior to the planned commencement of UXO clearance activities. This period is in line with the determination period for new marine licences and is therefore considered to be appropriate. Additionally, as the impact assessment for UXO clearance has already been undertaken and is detailed within the Environmental Statement (notwithstanding that there are requirements for a method statement, marine mammal mitigation protocol (MMMP) and site integrity plan (SIP)), the volume of information required to be submitted will be slightly less than that required for a new marine licence application. Furthermore, given that UXO clearance is intended to proceed prior to commencement of construction, submission of the UXO plans would occur prior to submission of the information associated with construction (i.e. design plan, construction method statement, etc) and therefore not during a period where stakeholders are required to review a large number of documents in parallel (which we understand to be the key reason that has driven the general requirement for a six month review period for other pre-construction documentation). *Inclusion of UXO clearance within the definition of 'commence'*

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G – DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
			See response to Point 1 of DCO, DMLs and Related Certified Documentation above. *Proposed conditions* Such conditions are not considered to be appropriate or necessary for the reasons set out in our responses to Points 4, 5 and 6 of Marine Mammals above. As noted by NE, these commitments are set out within the In-Principle SIP (APP 594), and a final version of this plan requires to be submitted to the MMO for approval in accordance with the conditions of the DMLs. The Applicant considers that the SIP provides the most flexible and appropriate mechanism for managing potential impacts.
12	The condition allows for changes to the cable protection if proposed following cable laying operations. However, there is no end date within the condition. Natural England's joint position with the MMO is that it is not appropriate for cable protection to be deployed throughout the operation and maintenance (O&M) phase of a project. This is due to the very large spatial and temporal scale of these licenced works, giving a Rochdale Envelope that is too undefined to appropriately assess. An end date should be included based on the proposals within the Natural England and MMO joint position statement. Any cable protection works after this end date should be licenced separately. It should also be noted that further surveys would be required to confirm the presence/absence of Sabellaria reef, such as is required prior to construction.		As per the Applicant's response to Point 2 of DCO, DMLs and Related Certified Documentation above, this matter is under consideration by the Applicant. Through the SoCG process, the Applicant has requested sight of the joint paper by the MMO and NE which the MMO state will offer guidance on the expected marine licensing requirements for such activities. Following review of this guidance, the Applicant will prepare a response on this matter.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G – DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
13	Natural England considers that within these conditions the requirements to conduct ornithological monitoring (as outlined in the In Principle Monitoring Plan) should be secured.		Under consideration by the Applicant.
14	Natural England notes that this condition includes a requirement to monitor the first four piles and that under sub-paragraph (2) the MMO may require further monitoring. This requirement is in line with previous requirements for similar projects. However, Natural England would consider the first four piles represent the minimum requirement and would welcome discussion on expanding this proposed monitoring to include an agreed selection of the most resistant piles. The most resistant piles are likely to represent the largest noise impacts and could be further used to validate the noise impact predictions of the ES.		The Applicant will discuss this comment with NE through the SoCG process but does not consider any changes are required to the conditions of the DMLs.
15	All issues raised under Schedule 13 also apply to Schedule 14 where similar conditions exist.		Noted
16	Please see point 3 regarding Arbitration.		See response to Point 3 of DCO, DMLs and Related Certified Documentation above.

4.18.2.7 Offshore Operations and Maintenance Plan

Table 46 Applicant's Comments on Natural England's Relevant Representation (Offshore Operation and Maintenance Plan)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
Document Used: 8.12 EA2 Outline Offshore Operations and Maintenance Plans			
17	The definition of green items states that these items may go ahead and that no additional Marine Licences are needed, but that notification may be required. This is not entirely accurate, some of the items listed as green require resubmission of plans and documentation and further approvals from the MMO. Natural England suggests that the text is amended to reflect that some green items will require approval and not just notification.		It is not entirely clear what items are being referred to and the Applicant would request further clarification from Natural England on this point.
18	Cable burial using surface protection: Natural England assumes this refers to deployment of cable protection, although the table is not clear on this point. This is listed as green indicating that a further marine licence is not required. Natural England does not agree and considers this should be amber. Please see point 2 and the MMO and Natural England position statements on cable protection. This issue is replicated in the transmission section of the plan and both sections should be amended.		See response to Point 2 of DCO, DMLs and Related Certified Documentation.
19	Scour protection is listed within the table as green. Therefore, it may be deployed with no additional licence required. This should be changed to amber. Scour protection may be deployed up until the maximum assessed in the ES. Any additional protection above the amount assessed in the ES would need additional licences. Natural England advises that maximum amount allowed should be based on the maximum amount assessed in the ES for the individual foundation type. Not the total assessed volume of scour for the entire project and the document should be amended to reflect		The Applicant will review the OOMP in light of NE's comments and, where considered appropriate, will update the OOMP. With respect to scour and cable protection during O&M see the Applicant's response to NE Point 2 of DCO, DMLs and Related Certified Documentation.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
	this. This issue is replicated in the transmission section of the plan and both sections should be amended.		
20	Natural England does not consider it appropriate to grant a licence to detonate UXO over such a long period of time as the lifetime of the project. This is especially relevant to projects located within the Southern North Sea Special Area Of Conservation (SAC) where detonation could have significant impacts and should be assessed based on updated information to show consideration of such things as in-combination impacts. Notwithstanding our arguments above, if it is decided that it is appropriate to include UXO detonation for the lifetime of the project, then Natural England notes that UXO detonations are listed as green. Natural England would advise that this should be listed as amber as the ES has assessed only a total of 80 detonations up to a maximum size of 700kg and therefore if more than 80 UXO's are found, or a UXO of size greater than 700kg, a new Marine Licence would be required. Additionally, consent will be required for disturbance of European Protected Species (EPS) for all instances and, therefore, it may be more appropriate to list this as red. However, in all instances the need for the EPS consent should be appropriately reflected in this document to ensure appropriate consent is sought within a reasonable time frame.		The intention is not to carry out UXO clearance activities throughout the operational period and therefore this reference will be corrected in the OOMP. With respect to the comments about EPS licences being required, this is not relevant in the context of the OOMP as the OOMP relates to maintenance activities authorised by DML or marine licence. Separate EPS licences will be sought outwith the DCO as and when required.

4.18.2.8 In Principle Monitoring Plan

Table 47 Applicant's Comments on Natural England's Relevant Representation (In Principle Monitoring Plan)

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
Document Used: 8.13 EA2 Offshore In Principle Monitoring Plan			
21	The proposed benthic monitoring only considers construction activities. The requirement for monitoring for O&M activities, which directly impact the seabed, should be included. This monitoring will be required in the form of geophysical and ground truthing (drop down video) surveys for any areas which have no monitoring and no construction activity within 2 years prior to the proposed O&M works. The post-construction structural/engineering surveys suggested in Table 1 could be used to inform any monitoring should they be in the appropriate location and within an appropriate timeframe.		Under consideration by the Applicant. This matter is linked to NE Point 2 of DCO, DMLs and Related Certified Documentation. The Applicant requests sight of the Natural England / MMO joint positions on deployment of cable protection, which the MMO state will offer guidance on the expected marine licensing requirements for such activities. Following review of this guidance, the Applicant will prepare a response on this matter.
22	Natural England notes that we would like to engage with the applicant on the potential monitoring requirements for marine mammals and the potential for contribution to strategic monitoring. Following this discussion there may be a need to update this section to better reflect the monitoring that will be required.		The Applicant is a subsidiary of ScottishPower Renewables (UK) Limited (SPR) and SPR has a strong track record of engagement on strategic monitoring projects for marine mammals including: • providing technical input and funding to develop the DEPONS [61] model. • commissioning the collection and managing the ongoing assessment of project level piling data on East Anglia ONE with the intent that this could be used to advance understanding

[61] The Disturbance Effects of Noise on the Harbour Porpoise Population in the North Sea (DEPONS) model was developed to simulate individual animal's movements, energetics and survival for assessing population consequences of sub-lethal behavioural effects. Also see Nabe-Nielsen, J., van Beest, F.M., Grimm, V., Sibly, R.M., Teilmann, J. and Thompson, P.M. (2018). Predicting the impacts of anthropogenic disturbances on marine populations. Conserv Lett. 2018;e12563. https://doi.org/10.1111/conl.12563.

Point	Taken from NE's Relevant and Written Representations EA2 Appendix G DCO, DML and related certified documentation	RAG Status Assigned by NE	Applicant's Comments
			of the effectiveness and limitations of the DEPONS and iPCOD population effect models; • the intent to provide underwater noise data collected during UXO detonation at East Anglia ONE to support ongoing BEIS work contracted to Hartley Anderson to understand the noise profiles of underwater explosions which would be used to produce new industry guidance; • participation in the Joint Cetacean Protocol and commitment to data sharing. The Applicant will engage with Natural England however it is not considered that strategic monitoring is appropriate at a project level in the context of the application.
23	Natural England refers to our points 42 and 43 in Annex A Offshore Ornithology.		See the responses to points 42 and 43 of Offshore Ornithology above.

4.19 Network Rail Infrastructure Limited (RR-060)

Table 48 Applicant's Comments on Network Rail Infrastructure Limited's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	Network Rail is a statutory undertaker and owns, operates and maintains the majority of the rail infrastructure of Great Britain. The Book of Reference (BoR) identifies Plots 25 – 30 (inclusive) (Plots) as land owned or in which Network Rail has a property interest in respect of which compulsory powers to acquire new rights and to acquire land are sought, as well as other compulsory powers (Compulsory Powers). The Compulsory Powers are sought in relation to operational railway land and other railway property. Network Rail objects to the inclusion of the Plots in the Order and to the acquisition of Compulsory Powers in respect of them. The Plots constitute land acquired by Network Rail for the purpose of its statutory undertaking and, accordingly, this representation is made under section 56 and sections 127 and 138 of the Planning Act 2008. Network Rail considers that there is no compelling case in the public interest for the acquisition of the Compulsory Powers and Network Rail considers that the Secretary of State, in applying section 127 of the Planning Act 2008, cannot conclude that new rights and restrictions over the railway land can be created without serious detriment to Network Rail's undertaking; no other land is available to Network Rail which means that the detriment cannot be made good by them. Network Rail also objects to all other compulsory powers in the Order to the extent that they affect, and may be exercised in relation to, Network Rail's property and interests. In order for Network Rail to be in a position to withdraw its objection Network Rail requires: (a) agreements with the Applicant that regulate: (i) the manner in which rights over the Plots and any other railway property are carried out including terms which protect Network Rail's statutory undertaking and agreement that compulsory acquisition powers will not be exercised in relation to such land; and (ii) the carrying out of works in the vicinity of the operational railway network to safeguard Network Rail's statutory undertaking. (b) the inclusion of protective provisions in the DCO for Network Rail's benefit. To safeguard Network Rail's interests and the safety and integrity of the operational railway, Network Rail objects to the inclusion of the Compulsory Powers and any other powers affecting Network Rail in the Order. Network Rail requests that the Examining Authority treats Network Rail as an Interested Party for the purposes of the Examination.	The land referred to in the Relevant Representation by Addleshaw Goddard LLP on behalf of Network Rail Infrastructure Limited (Network Rail), plots 25 to 30, is not land acquired or owned by Network Rail for the purpose of its statutory undertaking or operational land. It is land which another party acquired from Network Rail on 20th June 1974. In the transfer of land to the other party a restrictive covenant was placed on the land in relation to fencing by Network Rail and it is for this reason Network Rail are included in the Book of Reference as Category 2 land interest under Regulation 7(1)(a) of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009. The Applicant has contacted Network Rail to confirm the nature of the Network Rail land interest and to address the points raised in the Relevant Representation. The Applicant is seeking agreement with Network Rail that Protective Provisions are not appropriate and not required, any restrictions regarding fencing can be easily be resolved and Network Rail can withdraw its objection.

4.20 Office for Nuclear Regulation (RR-062)

Table 49 Applicant's Comments on Office for Nuclear Regulation's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	ONR has a role as a statutory consultee for National Policy Statements (NPS) and Nationally Significant Infrastructure Projects (NSIPs) likely to affect matters relevant to ONR's purposes, as specified in Part 3 of the Energy Act 2013, under the following: • The Planning Act 2008 • The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 • The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) . • The Infrastructure Planning (Interested parties and Miscellaneous Prescribed Provisions) Regulations 2015 Additionally, ONR has a non-statutory development control role to consider the impact of proposed developments on local emergency planning arrangements for nuclear sites and the potential for developments to pose an external hazard to the sites.	Noted.
002	We therefore request that local planning authorities notify us of any application for planning permission within our consultation zones that meets our consultation criteria. ONR's Land Use Planning policy, procedure and consultation criteria are published online at www.onr.org.uk/land-use-planning.htm. ONR considers that NSIPs that extend into our consultation zones are likely to affect matters relevant to ONR's purposes. ONR should therefore be consulted on Development Consent Order (DCO) applications for such NSIPs.	Noted. The Applicant has consulted with Office for Nuclear Regulation (ONR) for this application.

No.	Relevant Representation	Applicant's Comments
003	ONR is seeking assurance from Suffolk County Council Emergency Planners that the proposed development can be accommodated within the existing off-site emergency plan for Sizewell B nuclear licensed site, from the Sizewell B operator that the development does not pose a hazard to the nuclear licensed site and from ONR inspectors that the appropriate external hazards posed by the development have been adequately considered and mitigated against.	The Applicant has engaged with Suffolk County Council (SCC) Emergency Planners and provided information to allow an assessment of the Project on existing off-site emergency arrangements made under Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPIR). The Suffolk County Council Emergency Planners have confirmed that provided an appropriate change to the REPPIR off site emergency plan (undertaken by SCC as the REPPIR duty holder for off-site emergency arrangements) is made and emergency arrangements proposed by the Applicant in The Emergency Incident Response Plan are in place prior to commencement of works, the existing off site radiation emergency arrangements for Sizewell B Nuclear Power Station can be adequately maintained. The Suffolk County Council Emergency Planners have requested two Requirements to be added to the ***draft DCO*** (APP-023) and have sought the support of ONR to safeguard this outcome. The Applicant will continue to engage with the Suffolk County Council Emergency Planners (and ONR) through the Statement of Common Ground Process in order to reach agreement on the wording of appropriate requirements.

4.21 Public Health England (RR-064)

Table 50 Applicant's Comments on Public Health England's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	Thank you for your consultation regarding the above development. Public Health England (PHE) welcomes the opportunity to comment on your proposals at this stage of the project and can confirm that: With respect to Registration of Interest documentation, we are reassured that earlier comments raised by us on 6th December 2017 and 26th March 2019 have been addressed. In addition, we acknowledge that the Environmental Statement (ES) has not identified any issues that could significantly affect public health. We are satisfied that the wider determinants of health have been adequately assessed, using a suitable methodology. On the basis of the documentation provided we have no additional comments to make at this stage and can confirm that we have chosen NOT to register an interest with the Planning Inspectorate on this occasion. Please do not hesitate to contact us if you have any questions or concerns.	Noted.

4.22 Suffolk Coasts and Heath AONB Partnership (RR-083)

Table 51 Applicant's Comments on Suffolk Coast and Heath AONB Partnership's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	I should like to make a representation on behalf of the Suffolk Coast & Heaths Area of Outstanding Natural Beauty (AONB) Partnership. The Partnership is made up of around 25 organisations who are committed to the purposes of the AONB designation, to conserve and enhance natural beauty. For the avoidance of any doubt, individual members of that Partnership are public bodies or statutory undertakers who have duties to conserve and enhance natural beauty and it is anticipated these members will provide separate representations reflecting their complete interests and responsibilities. The AONB Partnership response will focus on the following issues:	Noted.
002	1) The Landscape and Visual Impact of the scheme on the nationally designated AONB, including its setting.	The landscape impact of the cable route construction, specifically its effect on the Estate Sandlands Landscape Character Type and Area AONB special qualities, is described in ***section 29.6.1.2*** and ***Appendix 29.3*** (APP-567) ***(section 29.3.2)*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077). The effect of the onshore cable route during construction is assessed as being significant, short-term and temporary on the character of the AONB within a localised area of the onshore cable route between Thorpeness, Sizewell and Leiston (Area A), but is assessed as not significant, short-term and temporary on the wider AONB within the LVIA study area (Areas B and C (between Sizewell and Dunwich Forest)). It is anticipated that once operational, the potential effects of the landfall and onshore cable route would be not significant due to their presence underground.

No.	Relevant Representation	Applicant's Comments
003	2) The impact of the scheme on the defined natural beauty elements of the AONB, including landscape quality, scenic quality, relative wildness, relative tranquillity, natural heritage features and cultural heritage.	A full assessment of the impact of the scheme on the natural beauty elements of the AONB is provided in ***section 29.3.2.1*** of ***Appendix 29.3*** (APP-567) and within ***Table A28.3*** of ***Appendix 28.4*** (APP-559). The approach of the assessment regarding the effects on landscape character of the AONB has been to base the assessment on the more tangible and clearly landscape focused 'natural beauty' indicators, identified in Section 2.0 of the 'Special Qualities Report', as indicators of the landscape qualities of the AONB. The effects of the construction and operation of the onshore and offshore infrastructure are assessed on each special quality indicator as a whole, with reference to specific geographic areas informed by the landscape character type (LCT) assessment in ***section 28.2.1*** of ***Appendix 28.4*** of ***Chapter 28 Offshore Seascape, Landscape and Visual Amenity***.
004	3) The impact of the scheme on the defined special qualities of the nationally designated AONB, including health and wellbeing, community, economy and ecosystems goods and services. It is worth noting the defined natural beauty and special qualities of the AONB are represented in the document: 'Suffolk Coast & Heaths Area of Outstanding Natural Beauty: Natural Beauty and Special Qualities indicators at: http://www.suffolkcoastandheaths.org/assets/Planning/V1.8-Natural-Beauty-and-Special-Qualities-of-SCH-AONB.pdf	A full assessment of the impact of the scheme on the defined special qualities of the AONB is provided in ***section 29.3.2.1*** of ***Appendix 29.3*** (APP-567) and within ***Table A28.3*** of ***Appendix 28.4*** (APP-559). The approach of the assessment regarding the effects on landscape character of the AONB has been to base the assessment on the more tangible and clearly landscape focused 'natural beauty' indicators, identified in Section 2.0 of the 'Special Qualities Report', as indicators of the landscape qualities of the AONB. The effects of the construction and operation of the onshore and offshore infrastructure are assessed on each special quality indicator as a whole, with reference to specific geographic areas informed by the LCT assessment in ***section 28.2.1*** of ***Chapter 28 Offshore Seascape, Landscape and Visual Amenity***.

No.	Relevant Representation	Applicant's Comments
005	4) The impact of the scheme on the purposes of the nationally designated AONB, including its setting, to conserve and enhance natural beauty.	A full assessment of the impact of the scheme on the defined 'natural beauty' indicators special qualities, identified in Section 2.0 of the 'Special Qualities Report', of the AONB is provided in ***section 29.3.2.1*** of ***Appendix 29.3*** (APP-567) and within ***Table A28.3*** of ***Appendix 28.4*** (APP-559). The effects of the construction and operation of the onshore and offshore infrastructure are assessed with reference to specific geographic areas informed by the LCT assessment in ***section 28.2.1*** of ***Chapter 28 Offshore Seascape, Landscape and Visual Amenity***.
006	5) How the scheme and the developer has addressed its duty of regard to the purposes of the AONB.	The Applicant has addressed its duty of regard to the purposes of the AONB throughout the site selection process. ***Section 4.9.1.3.3*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** outlines the Applicant's approach to the policy assessment and giving the AONB the highest status of protection in relation to landscape and scenic beauty and that development consent may only be granted in these areas in "exceptional circumstances". As a result of this policy assessment, the Applicant did not locate the onshore substation and National Grid infrastructure within or adjacent to the AONB.
007	6) The impact of the scheme on the ability of residents and visitors to enjoy the purposes of the AONB, its natural beauty and special qualities, for example public access and enjoyment of countryside.	The Applicant recognises the potential impact of the scheme on the ability of residents and visitors to enjoy the purposes of the AONB. This is addressed in ***section 30.6.1.4*** of ***Chapter 30 Tourism, Recreation and Socio-Economics***. The Project will interact with a number of Public Rights of Way (PRoW) within the AONB during their construction including public roads and pavements, footpaths, bridleways and byways which are formally designated as PRoW by Suffolk County Council. PRoWs are assessed in ***section 30.6.1.4.2.1 Potential Effect on PRoWs and areas of Common Land*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP078)***.*** The PRoW network across the AONB will be maintained during construction through temporary diversions involving a

No.	Relevant Representation	Applicant's Comments
		short diversion around construction works, allowing construction works to progress in the area of the original PRoW. Once these construction works (or a phase of construction works) are complete, the PRoW would be reinstated along its original route. This will ensure that public access to the AONB is maintained throughout the onshore construction programme. The ***Outline Public Rights of Way Strategy*** (APP-581) outlines the management principles to be adopted in ensuring that PRoWs are managed in a safe and appropriate manner during construction (and operation).
008	7) The impact of the scheme on the local economy, in particular the tourism industry, that relies on the natural beauty and special qualities of the AONB.	The Applicant recognises the potential impact of the scheme on the local economy, in particular the tourism industry, and that the natural beauty and special qualities of the AONB are an important aspect of this. This is addressed in ***section 30.6.1.3*** of ***Chapter 30 Tourism, Recreation and Socio-Economics***. The construction impact is assessed as having major beneficial significance for local businesses and people working for them as summarised in ***Table 30.66***. The long term impact on tourism is assessed as having negligible significance for the tourism industry within the Suffolk Coast AONB, East Suffolk Council and Suffolk County Council as shown in ***Table 30.81***.
009	8) The quality of and appropriateness of measures to avoid, mitigate and compensate for impacts on the natural beauty and special qualities of the AONB.	The Applicant recognises the potential impact on the AONB. ***Section 4.7.4*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** outlines how the Applicant located the onshore substation and National Grid infrastructure outside the AONB; and sought to reduce the area of the East Anglia TWO windfarm site, and its lateral spread. The changes offshore were achieved whilst maintaining commercial viability on the basis of the original generation capacity and wind turbine generator envelope to reduce the magnitude of change on seascape, landscape and visual receptors and on the setting and key coastal viewpoints within the AONB. The north-south extent of the Project windfarm site was subsequently reduced (by 9.68km on the western boundary and 8.03km on the east) in order to mitigate

No.	Relevant Representation	Applicant's Comments
		potential seascape impacts, without a reduction in wind turbine numbers or generation capacity. The windfarm boundary was reduced by a total area of 37km^2.

4.23 The Crown Estate (RR-030)

Table 52 Applicant's Comments on The Crown Estate's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	The Crown Estate manages property and rights which are owned by Her Majesty in right of the Crown. This portfolio includes around half of the foreshore and almost the entire seabed out to 12 nautical miles around the UK. Under the Energy Act 2004 and the Energy Act 2008, The Crown Estate also manages the rights over the continental shelf to offshore energy generation and the rights to carbon dioxide and natural gas storage and transportation (respectively).	Noted.
002	The Crown Estate requests to be registered as an Interested Party in the examination of the East Anglia TWO offshore windfarm. Our interest in the project is that East Anglia TWO Limited holds an Agreement for Lease from The Crown Estate for the area of seabed to be occupied by the project, and (subject to obtaining the necessary development consents) The Crown Estate will issue a lease to East Anglia TWO Limited for construction of the project. We therefore wish to follow the progress of examination of the project.	Noted.

4.24 The Woodland Trust (RR-092)

Table 53 Applicant's Comments on The Woodland Trust's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	We hold concerns with regards to the potential impact to Grove Wood, designated as ancient on Natural England's Ancient Woodland Inventory. The scheme boundary directly borders the woodland, but it is not clear from the mapping provided as to the nature of the works proposed. It is therefore difficult to assess the impact the works will have to the adjacent ancient woodland. As such, the Trust would like to highlight Natural England's Standing Advice regarding development bordering ancient woodland. It states: "For ancient woodlands, you should have a buffer zone of at least 15 metres to avoid root damage. Where assessment shows other impacts are likely to extend beyond this distance, you're likely to need a larger buffer zone."	The Applicant notes the concerns with respect to the ancient woodland at Grove Wood and confirms that the Project has been designed to avoid any potential impacts. This is discussed in the ***Outline Landscape and Ecological Management Strategy (OLEMS)*** (APP-584) and assessed in ***Chapter 22 Onshore Ecology*** (APP-070). As stated in ***sections 22.6.1.3*** and ***22.6.1.4*** of ***Chapter 22 Onshore Ecology*** (APP-070) Grove Wood is on the boundary of the onshore development area and is a non-statutory designated site, designated as ancient woodland. This woodland will be retained and therefore, there will be no change to this non-statutory designated site. As stated in ***section 5.2.3.1*** of the ***OLEMS*** (APP-584) a pre-construction walkover survey would be undertaken by an arboricultural clerk of works (ACoW). This survey would inform the works and form part of the baseline construction information. The surveys would detail the position of trees, their condition and value as well as the extent of root protection zones. All surveys are to be undertaken in line with the British Standard BS5837:2012. The ACoW would also produce an Arboricultural Method Statement as part of the Ecological Management Plan. ***Section 5.2.3.2*** details the measures to be taken during construction, including fencing off root protection areas. ***Section 22.6.1.4*** of ***Chapter 22 Onshore Ecology*** (APP-070) states that there are three locations where woodland losses will be unavoidable, however woodland at Grove Wood will not be impacted. As part of embedded mitigation, the onshore infrastructure will avoid areas of woodland and scrub where practicable as stated in ***section 5.2.2*** of the ***OLEMS*** (APP-584). ***Section 5.2.3.1*** details that a pre-construction

No.	Relevant Representation	Applicant's Comments
		walkover survey would be undertaken by the ACoW, ECoW and an engineer to assist in micro-siting of accesses, haul road and jointing bays along the onshore cable route to minimise woodland, tree and scrub loss. The surveys would show actual position of trees, their condition and value and indicate the extent of root protection zones. ***Section 22.6.1.4.2*** of ***Chapter 22 Onshore Ecology*** (APP-070) details mitigation measures, such as fencing off root protection areas to ensure that no damage to retained trees is incurred. The Applicant notes Natural England's Standing Advice regarding development bordering Ancient Woodland and a 15m buffer zone around Ancient Woodland will be adhered to, where practicable. The Applicant commits to no onshore cable route trenches or the haul road within the 15m buffer zone. Examples of exceptions to the 15m buffer would be landscape planting signage, Public Right of Way diversions and ecological mitigation areas.
002	Once further information is submitted, the Trust can provide a more detailed assessment of the impacts posed. Furthermore, the Environmental Statement within the applicant's submission for both projects refers to the presence of veteran trees (Chapter 22; Onshore Ecology). The Trust requests that an arboricultural impact assessment is provided to allow the Trust to assess whether these veteran trees will be impacted by the proposed scheme. In summary, the Woodland Trust objects to the proposed development on the grounds of impact to ancient woodland. We hope our comments are of use to you.	The Applicant notes the objection by the Woodland Trust. As stated in ***section 5.2.3.1*** of the ***Outline Landscape and Ecological Management Strategy*** (APP-584) a pre-construction walkover survey would be undertaken by an arboricultural clerk of works and an engineer to assist in the micro-siting of access, haul road and jointing bays to minimise woodland, tree and scrub loss. Any veteran trees present within the onshore development area would be identified during this walkover survey. The survey would then inform the works and would form part of the baseline construction information. The surveys would detail the position of trees, their condition and value as well as the extent of root protection zones. All surveys would be undertaken in line with the British Standard BS5837:2012. The ACoW would also produce an Arboricultural Method Statement as part of the Ecological Management Plan. Requirement 21 of the ***draft DCO*** (APP-023), provides that no onshore works can commence until an arboricultural method statement forming part of the Ecological Management Plan (which must reflect the survey results and ecological

No.	Relevant Representation	Applicant's Comments
		mitigation measures included in the ES), has been submitted to and approved by the relevant planning authority in consultation with the relevant statutory nature conservation body. ***Section 5.2.3.2*** of the ***OLEMS*** (APP-584) details the measures to be taken during construction, including fencing off root protection areas.

4.25 Trinity House (RR-029)

Table 54 Applicant's Comments on Trinity House's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	Trinity House is the General Lighthouse Authority for England, Wales, the Channel Islands and Gibraltar with powers principally derived from the Merchant Shipping Act 1995 (as amended). The role of Trinity House as a General Lighthouse Authority under the Act includes the superintendence and management of all lighthouses, buoys and beacons within our area of jurisdiction. Trinity House wishes to be a registered interested party due to the impact the development would have on navigation within Trinity House's area of jurisdiction.	Noted.
002	It is likely that we will have further comments to make on the application and the draft Order throughout the application process.	Noted The Applicant has engaged with Trinity House and has submitted a draft Statement of Common Ground with Trinity House alongside this submission (ExA.SoCG-8.D0.V1).

5 Comments on Non-Statutory Organisations Relevant Representation

13. The Applicant's comments on Relevant Representations received from non-statutory organisations can be found in ***Table 55*** to ***Table 67*** below.

5.1 CLdN Group (RR-026)

Table 55 Applicant's Comments on CLdN Group's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	The CLdN Group operates ro-ro shipping lines between the Humber and northern European ports including Rotterdam [operated by CLdN ro-ro SA]) and Zeebrugge [operated by Cobelfret Ferries NV].	Noted.
002	The CLdN Group has been consulted about the project by the applicant and considers that there should not be any impact on its operations provided that the Secretary of State ensures that the mitigation measures set out in the environmental statement are secured by way of a requirement or other provision, and that there is adequate future monitoring of the effectiveness of the measures. Any failure to provide the mitigation would present collision and allision risk to commercial shipping, particularly in the event of ships sailing off their usual course as a result of adverse weather or other incidents.	All of the mitigation measures specified within ***section 14.3.3*** of ***Chapter 14 Shipping and Navigation*** (APP-062) are listed in ***section 8*** of ***Table 1.1*** of the ***Offshore Schedule of Mitigation*** (APP-574). The final column of that table specifies where these measures are secured within the ***draft DCO*** (APP-023) and/or deemed marine licences (DMLs). The mitigation measures to be applied are provided below for completeness: **Embedded Mitigation** • The windfarm site will meet the applicable requirements of MGN 543 and its annexes, including requirements to facilitate SAR access; • Lighting and marking of the windfarm site will be in line with IALA guidance O-139 (2013)[62], which will be agreed with Trinity House and Maritime and Coastguard Agency (MCA) post consent; • Wind turbines will have at least 22m air clearance above Mean High Water Springs as per MGN 543 (MCA 2016) and Royal Yachting Association (RYA) (RYA 2015) requirements. • Cable protection via burial (or alternative methods where burial is not feasible), including maintenance and monitoring

[62] IALA. (2013) O-139 the Marking of Man-Made Offshore Structures, Edition 2. Saint Germain en Laye, France: IALA.

No.	Relevant Representation	Applicant's Comments
		of the protection during the operational phase. A Cable Burial Risk Assessment will be developed post-consent; • Marking of structures and cables on appropriately scaled navigational charts; • Compliance from all vessels associated with the Project with international regulations as adopted by the flag state (most notably International Convention for the Prevention of Collision at Sea (COLREGS) (IMO 1972[63]) and International Convention for the Safety of Life at Sea (SOLAS) (IMO 1974)[64]); • Dedicated Marine Coordination Centre to manage on site vessels; and • Development of an Emergency Response Cooperation Plan (ERCoP). **Additional Mitigation** • Use of guard vessels as appropriate (e.g. during the construction period or during periods of major maintenance); • Under keel clearance will be risk assessed against MCA and RYA guidance; • Application post consent for safety zones around structures where construction or major maintenance is being undertaken; • Relevant information promulgated via Notice to Mariners and other appropriate media.

[63] IMO. (1972) COLREGS, London: IMO.
[64] IMO. (1974) SOLAS, London: IMO.

5.2 Harwich Harbour Fisherman's Association (RR-046)

Table 56 Applicant's Comments on Harwich Harbour Fisherman's Association's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	As a member representing the 17 vessels of Harwich Fisherman's Association on the East Anglia Two Commercial Fisherman Working Group, I submit my associations concerns, comments and formal objection regarding the proposed application to install wind turbines and cables in the proposed areas. For some months we have engaged in discussions through the working group and we appreciate the efforts by the developers to have open and meaningful discussion with our members however, there are still to date matters that are of serious concern which will create some major issues for all the inshore fleet on the east coast if the project goes ahead. Our members only have previous experience on how past and ongoing wind farm projects have been managed and how they have compromised the commercial activities of fishermen within the Harwich and east coast area.	As outlined in ***Chapter 13 Commercial Fisheries*** (APP-061), consultation with the fishing industry is on-going and will continue post-consent. A Commercial Fisheries Working Group (CFWG) has already been established to facilitate liaison with local fishermen in respect of the Project, as well as East Anglia ONE North, East Anglia ONE and East Anglia THREE. A key aim of the CFWG is to identify and develop co-existence strategies during the life cycle of the projects. The Applicant has appointed a Fisheries Liaison Officer (FLO) to work with the fishing industry across all East Anglia projects, including: • East Anglia ONE; • East Anglia THREE; • East Anglia TWO; and • East Anglia ONE North.
002	Sometimes a disruption payment has cushioned the impact during construction but we wish to stress that this objection has nothing to do with money; we just do not want any more wind farms, for the reason below, and WE HAVE OUR SHARE!	Noted
003	We are convinced, that certain further areas will become un-fishable and they will remain so whilst the proposed wind farm is in operation and possibly longer. Our members fishing (all under 10m vessels) will be compromised in the proposed areas. In the past the developer has agreed to pre and post construction surveys but because of the uncertain stability of the sea bed on the east coast (continually shifting	The Applicant notes that Fisheries Liaison and Co-existence Plans (FLCPs) will be produced post-consent for the Project (as secured in conditions 17 of the generation DML and 13 of the transmission DML. The FLCPs will include protocols for the snagging or loss / damage of fishing gear associated with project infrastructure.

No.	Relevant Representation	Applicant's Comments
	seabed) what may be satisfactory one day does not give the guarantee it will be safe to fish in the future. We have in all discussion stated that cables will not stay buried in certain sections, which is exactly what has occurred on the Gabbard and Gunfleet wind farms. Any exposed cable is a serious snagging hazard and could have serious consequences for the vessels safety and no skipper is willing to endanger his vessel and crew. The applicant will I am sure say they will follow best practice techniques but will not be able to give cast iron guarantees that cables will be buried and stay buried. The licence conditions will state the seabed should be restored however, again from our experience it will not happen in certain areas. Every cable crossing will have to be covered and each covering will create additional hazards!	Timely and efficient Notices to Mariners (NtMs), Kingfisher and other navigational warnings will be issued to the fishing industry prior to all survey and construction works through a project specific marine co-ordination system as secured in conditions 10 (notifications) and 11 (aids to navigation) of the generation DML and conditions 6 (notifications) and 7 (aids to navigation) of the transmission DML. Appropriate communication with the fishing industry will be undertaken in the event that cables become unburied during the operational phase of the Project (i.e. through the FLO and appropriate channels such as the Kingfisher Information Service). The communication of cable exposures is secured under Condition 10 of the generation DML and condition 6 of the transmission DML. In addition, as secured under condition 22 of the generation DML and condition 18 of the transmission DML, following installation of cables, the cable monitoring plan must be updated with the results of the post installation surveys. The plan must be implemented during the operational lifetime of the Project and reviewed as specified within the plan, following cable burial surveys, or as instructed by the MMO. Furthermore, as identified in ***section 13.3.3 Chapter 13 Commercial Fisheries*** (APP-061), in instances when fishing gear may need to be temporarily relocated due to construction activities, appropriate evidence-based mitigation, as specified in Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) Guidelines (FLOWW 2014[65]; 2015[66]) will be applied.

[65] FLOWW Best Practice Guidance for Offshore Renewables Developments: Recommendations for Fisheries Liaison (2014). FLOWW Best Practice

[66] Guidance for Offshore Renewables Developments: Recommendations for Fisheries Disruption Settlements and Community Funds. FLOWW (2015).

No.	Relevant Representation	Applicant's Comments
004	Over the recent years our fishing activities has been restricted over extremely large areas due to the provision of previous and ongoing sustainable renewable energy schemes and any additional projects on the east coast must be given serious consideration. These sites were regular fishing grounds used by our members but are now no longer available. The knock-on effect is that all the fishing activities have been condensed into much smaller areas, with our members struggling to have viable areas to work. Any new additional wind farm will compound this issue, hence our objection. There are ongoing proposals on the east coast that will, if approved, compound the issues further, such as the Marine Conservation Zones, Harwich Haven Authority new Maintenance Dredge Disposal Site and numerous major cable installations out of the Thames. Two existing wind farms have already applied to the crown estate for expansion with planning application forthcoming. When will enough be enough!	***Chapter 13 Commercial Fisheries*** (APP-061) includes a comprehensive assessment of the potential cumulative impacts of the Projects on fishing. This includes consideration of other relevant offshore windfarm projects (i.e. projects in planning (scoped), application submitted, application accepted, in determination, consented and under construction), aggregate dredging exploration and option areas and proposals for closures to fishing associated with the implementation of management measures in Marine Protected Areas (MPAs). As described in ***section 13.7*** of ***Chapter 13 Commercial Fisheries***, key projects with potential to result in cumulative impacts on the local inshore fleet are those in the vicinity of the Project, namely East Anglia ONE, East Anglia ONE North and East Anglia THREE. It should be noted, however, that once operational, fishing by local inshore vessels would be expected to be able to resume over the export cables of these windfarms. Similarly, fishing would be able to resume within the windfarm arrays. With regards to potential temporary loss of grounds during construction, it is important to note that where relocation of gear during construction is required, evidence-based mitigation following FLOWW guidelines would also be applied. As previously mentioned, a CFWG has already been established to facilitate liaison with local fishermen in respect of the Projects, as well as East Anglia ONE and East Anglia THREE. A key aim of the CFWG is to identify and develop co-existence strategies during the life cycle of the projects.
005	An additional effect to our members is that, because of the local inshore areas being restricted, longer journey times will be forced on our members, increasing the carbon footprint and running costs of all our vessels. This will also place additional challenges to our members. The	Consideration has been given in ***Chapter 13 Commercial Fisheries*** (APP-061) to the potential for the Project to result in increased steaming times to fishing grounds.

No.	Relevant Representation	Applicant's Comments
	present government has stated commitment to ensure fishing remains sustainable on the East Coast, continual reductions of accessible fishing ground for the coastal commercial fishing fleet brings this commitment into doubt. If the East Anglian Two proposal is granted approval, the local fishing fleet (our members) will suffer considerable changes to their existing fishing area but it will also have long term effect on the future generation who hopefully would have inherited a credible and sustainable fishing industry on the east coast, which now must be in question. The proposed wind farm is totally opposed by our association.	It should be noted that fishing activity by the inshore fleet for the most part does not extend to areas offshore of the windfarm sites and mainly concentrates in areas along the offshore cable corridors. In general terms, it is therefore expected that there would be few occasions when there would be a requirement to change existing steaming routes to avoid safety zones around construction activities. With regards to the operational phase, it should be noted that as described in ***Chapter 14 Shipping and Navigation*** (APP -062), it is anticipated that fishing vessels will be able to steam through the operational windfarm sites. With the above in mind, it is not expected that the construction and operation of the Projects would result in significant increases to fishing journey times. As previously mentioned, a CFWG has already been established to facilitate liaison with local fishermen in respect of the Projects. A key aim of the CFWG is to identify and develop co-existence strategies during the life cycle of the Projects. In addition, FLCPs will be produced post-consent for the Project as secured in condition 17 of the generation DML and condition 13 of the transmission DML.

5.3 National Federation of Fishermen's Organisations (RR-055)

Table 57 Applicant's Comments on National Federation of Fishermen's Organisation's Relevant Representation

No.	Relevant Representation	Applicant's Comments
Worst Case Scenario and Access to Fishing During the Project Operational Phase		
001	As the worst-case scenario Table 13.3 in Chapter 13 Commercial Fisheries of the ES identifies that the minimum spacing between wind turbines proposed for the East Anglia ONE North project is 800m in-row and 1,200m inter-row. However, as it would not be safe to fish up to the foundation bottom and acknowledging the application of advisory safety zones of 50m radius, then the theoretical maximum fishable space falls to 700m in-row and 1,100m inter-row. The assessment assumes that seine netting will not resume activity within the operational wind farm but that beam trawling activity will be able to resume to some extent. It is not clear to what extent partial access is factored into the assessment – i.e. 50% of former levels, less or more? VisNed considers that at least a 1km clearance is needed to attempt beam trawling among a wind farm array, but this has yet to be proven in practice. To date, there is no significant evidence that fishing activities using towed gears have returned to fishing among wind farm arrays. In light of this, we therefore consider that on a precautionary basis a worst-case assumption should be that no towed gear fishing activities will resume within operational offshore wind farms	As outlined in ***Chapter 13 Commercial Fisheries*** (APP-061), existing legislation in the UK does not prevent fishing from occurring in operational windfarms. The exact level of fishing activity which may resume within the operational sites will therefore largely depend on the perception of individual skippers with regard to operating fishing gear in offshore windfarm projects. In the particular case of beam trawling, it is the Applicant's view that at the current minimum spacing, fishing will be viable within the operational sites. The Applicant notes that in the Statements of Common Ground (SoCG) for other projects in the region such as East Anglia ONE and East Anglia THREE, National Federation of Fishermen's Organisation (NFFO) and VisNed confirmed that beam trawling by Anglo-Dutch and Dutch vessels would be able to resume safely during operation. The minimum spacing proposed at these two projects was smaller than that proposed at the Project[67] however it should be noted that in the absence of detailed geophysical and geotechnical information, minimum separation distances are provided based on the likely requirements of wind turbine suppliers. The nominal separation distances are anticipated to be greater.

[67] Minimum spacing between turbines considered for East Anglia ONE was 625 (within rows) and 850 (between rows) (assuming 50 m operational safety zones would be in place); and minimum spacing considered for East Anglia THREE was 675m within rows and 900m between rows (assuming 50m operational safety zones would be in place).

No.	Relevant Representation	Applicant's Comments
002	Safety Zones and use of Service Operation Vehicles: In recent years, offshore wind farm projects have started to use Service Operation Vehicles (SOV) which attach themselves to windfarm installations via a "walk to work" gangway to enable personnel to transfer for maintenance activities. While in practice SOVs are used for regular maintenance activities, moving from structure to structure several times a day, because they attach themselves to offshore wind farm structures, they fall under the definition of "major maintenance works" under the 2007 regulations[68], which provides for standard safety zone with a radius of 500m around installations. These regulations were drafted before such vessel operations were envisaged. It appears that by virtue of the definition of major maintenance works under the regulations that SOVs may now operate on any wind farm granted a safety zone for major maintenance and by default a 500m safety zone will apply around these activities. Such an application of safety zones in windfarms already granted safety zone authorisations will therefore take place when the impacts of such a regime had not been assessed as part of their original planning applications. In relation to an application for the Race Bank Offshore Wind Farm, where a variation to its safety zone authorisation was sought in order to apply a 150m safety zone to such activities, the MCA advised that the use of SOV which can detach itself relatively quickly from a structure should fit internationally recognised law of the sea; through maintaining safe distances, and a sufficient look out via visual observations, radio watches and radar etc. and therefore there was no benefit of applying for such a safety zone. We share that view.	The safety zone statement (see the ***draft DCO*** (APP-023)) states the Applicant's intention to apply for the following safety zones post-consent: • Standard rolling safety zones of 500m around each offshore renewable energy installation (OREI) for the period of construction of that OREI and during major maintenance activities; and • The Safety Zone Application may also request a 50m safety zone around each of the OREI within the Project area during the construction phase where no construction works are taking place on that OREI (i.e. where an OREI is incomplete or is in the process of being tested before commissioning. Rolling advisory safety zones of up to 500m around vessels installing export cables, platform link cables and inter-array cables in the interests of the safety of all users of the sea, and to provide clearance of 500m from laid cables until burial is confirmed in case of interaction with anchors or fishing gear. Furthermore, the safety zone statement notes that the Applicant does not intend to apply for safety zones during the operational phase of the Project (except for major maintenance activities as discussed above). At this stage, pre-consent and prior to supply chain market surveys and the tendering process for operation and maintenance services, the Applicant has not made any decisions on the nature of the vessels that would be used to service the Project beyond establishing envelope parameters for assessment and cannot comment on the use of the type of vessel refered to by the NFFO and VisNed. However, it is worth noting that the Safety Zone application under Section 95 of the Energy Act 2004 requires consultation on the application with relevant stakeholders

[68] The Electricity (Offshore Generating Stations) (Safety Zones) (Application Procedures and Control of Access) Regulations 2007

No.	Relevant Representation	Applicant's Comments
	The application of a 500m statutory safety zone that comes into operation in different locations several times a day will present a serious disruption to any fishing activities and risks vessel operators inadvertently being found to be illegally operating in an area as a consequence of short notice decision-making taken in the deployment of an SOV from place to place. Such a regime risks causing conflict and confusion. A 150m safety zone is preferable to 500m in this regard as it would at least mitigate some of the potential disruptive effects. SPR should therefore clarify whether it plans to use SOVs as part of its maintenance regime, whether it would seek to apply default provisions for a 500m statuary safety zone to such activities or indicate what alternative regime it would intend to operate. Any related disruption effects need to be assessed. For the avoidance of doubt, we consider the application of a 500m safety zone around SOV activities to be unnecessary from a safety point of view, or proportionate and practical when set against an objective to promote coexistence with fishing activities in the vicinity of the project. However, in order to account for the views of offshore wind farm owners we would agree to the application of 150m safety zones for such purposes.	including the fishing industry. The Applicant therefore recommends that this matter would be better addressed through that consultation when details of the nature and functioning of vessels proposed to service the Project are known.
003	Cable damage attributable to wilful intent or negligence: Legal protection is afforded to cables against damage caused by wilful intent or negligence under the Continental Shelf Act (1964), and actions on behalf of the cables industry representative body, the European Sub-sea Cables Association, of which we understand Scottish Power Renewables (SPR) is a member, have warned of an increasing interest among the cables industry to seek prosecution in the event of damages occurring. We consider this matter is therefore relevant to considering the level of access to fishing activities in the	As described ***Chapter 13 Commercial Fisheries*** (APP-061), existing legislation in the UK does not prevent fishing from occurring within operational windfarm sites and the Applicant is committed to working closely with the fishing industry and developing co-existence strategies. With regards to cable burial ***Chapter 13 Commercial Fisheries*** states that: *"Offshore cables (inter-array, platform link and export cables) will be buried where possible to at least 1m. Where burial is not possible (i.e. due*

No.	Relevant Representation	Applicant's Comments
	vicinity of cable infrastructure and SPR should therefore clarify under what circumstances it would regard damage resulting from fishing activity to be the result of wilful intent or negligence on the part of a fishing vessel operator.	*to hard ground or at cable crossings) cables would be protected. In line with standard practice in the North Sea oil and gas industry, measures would be undertaken to ensure that where cable protection is required, the protection methods used are compatible with fishing activities where practically possible"* Additionally Condition 10(12) of the Generation DML and 6(12) of the transmission DML require notification to mariners and kingfisher on the location and extent of any cable exposure whilst the fisheries liaison and coexistence plan, secured under Condition 17(1) of the generation DML and 13(1) of the transmission DML will include 'loss of gear' and 'gear snagging' protocols. The Applicant does not currently have a position regarding the circumstances in which it would regard damage resulting from fishing activity to be the result of wilful intent or negligence on the part of a fishing vessel operator, but considers that given the above practices, secured through the DCO, such a position would not be required.
Assessment Methodology		
004	The Commercial Fisheries Assessment (Ch 13) criteria need to be defined in a more quantitative way. This is particularly the case for the definitions used under sensitivity criteria which lack specificity over what constitutes limited, moderate and extensive operational range and dependence upon the number of fishing grounds. To support a more quantitative assessment we suggest that the magnitude criteria should be based on a percentage loss of access to grounds.	The assessment of commercial fisheries follows an impact significance matrix approach taking account of receptor sensitivity and impact magnitude. This is in line with standard Environmental Impact Assessment (EIA) methodologies (as outlined in ***Chapter 5 Environmental Impact Assessment Methodology*** (APP -053) and the methodology used for assessment of commercial fisheries for other projects. The identification of sensitivity is based on parameters such as operational range, versatility (ability to deploy / target various species) and availability of grounds. In defining magnitude, consideration is given to the area affected by the potential impact and the duration of the impact.

No.	Relevant Representation	Applicant's Comments
		In addition, the level of fishing activity that the offshore development area sustains is considered in the context of its relative importance to the overall grounds and the level of fishing which these grounds support. Furthermore, in the case of impacts during the operational phase, consideration is given to the potential for fishing to continue within the operational site. The Applicant notes that whilst the assessments undertaken in ***Chapter 13 Commercial Fisheries*** (APP-061) in respect of the Projects, are qualitative in nature, they are supported by an extensive quantitative analysis of fisheries data and information. The outcomes of this analysis are illustrated within the numerous figures presented as part of ***Chapter 13 Commercial Fisheries*** which are referenced throughout the impact assessments.
005	The Cumulative Impact Assessment should examine past losses (taking account of completed plans and projects) as well as predicted future losses in percentage terms.	The Applicant does not consider it appropriate to factor in potential past losses of fishing grounds associated with operational projects/existing activities within impact magnitudes for the assessment of cumulative impacts, as suggested by NFFO/VisNed. The current distribution and level of fishing activity already takes account of the presence of existing projects / activities. As such, including existing projects / activities in the cumulative assessment would represent double counting of their effect.
006	With respect to the assessment of Impact 6 - safety issues for fishing vessels (Ch 13 section 13.6.1.6) and 7: Obstacles on the Sea Bed (Ch 13 section 13.7.2.6) - there is no probabilistic assessment similar to that completed for other navigation related impact risks (Ch 14). It is not clear whether and how "frequency of occurrence" and "severity of consequence" criteria used in the navigational impact assessment have been applied, and what data, if any, have been used. The assessment appears to conclude that safety issues are within acceptable limits based solely on listing inbuilt mitigation (safety	The potential impacts of the Project with regards to navigational issues are assessed in ***Chapter 14 Shipping and Navigation*** (APP-062), including consideration of potential risks to fishing vessels (as well as other vessels) and are supported by a Navigational Risk Assessment (NRA) which complies with the MCA's requirements in Marine Guidance Note 543. Further to the assessment presented in ***Chapter 14 Shipping and Navigation*** and recognising that vessels engaged in fishing may be subject to additional safety issues other than those strictly related to

No.	Relevant Representation	Applicant's Comments
	zones, advisory safety zones, communications with the fishing industry, appropriate deployment of guard vessels and offshore fisheries liaison officers).	navigation (i.e. snagging risks), an additional assessment covering this was presented in ***Chapter 13 Commercial Fisheries*** (APP-061). The assessment identifies the potential risks and highlights the measures proposed by the Applicant to minimise them. Measures to minimise safety issues are listed in ***section 13.3.3*** of ***Chapter 13 Commercial Fisheries*** (APP-061), including embedded mitigation measures, such as cable burial, the undertaking of appropriate liaison and information sharing and the production of a Fisheries Liaison and Co-existence Plan (FLCP), (as secured in condition 17 of the generation DML and condition 13 of the transmission DML post-consent. Taking account of the proposed measures to minimise impacts, and through on-going liaison with fishermen and information distribution, and with the required compliance from fishermen, the assessment concluded that safety issues for fishing vessels would remain within acceptable limits. It is the Applicant's view that the information provided within ***Chapter 13 Commercial Fisheries*** is robust and supports appropriately the conclusions reached in the chapter with regards to safety issues.
Cumulative Impact Assessment		
007	Reflecting our view that there is no evidence that we are aware of that towed gear fishing activities have significantly returned to operational offshore wind farms, the Cumulative Impact Assessment (CIA) should on a precautionary basis adopt a worst-case assumption that no towed gear fishing activities will resume within operational offshore wind farms.	There is currently no legislation in the UK preventing fishing from taking place within operational windfarms. Static and towed gear fishing is known to have resumed in various operational wind farms around the UK. In addition, the ability of vessels to operate fishing gear within operational sites is further supported by evidence from numerous fish monitoring surveys carried out to date within operational wind farms in the UK using commercial fishing vessels and gears for sampling.

No.	Relevant Representation	Applicant's Comments
		In general terms, the cumulative assessment notes that fishing would be able to resume with the exception of projects in countries where fishing within windfarms is prohibited (i.e. the Netherlands, Belgium). In the case of seine netting, the assumption is made that given the dimensions of the gear used, it would be highly unlikely for this method to resume in operational sites, regardless of whether or not fishing is permitted within windfarm arrays.
008	We have provided consultants Brown and May with information on proposed fisheries measures associated with designated MPAs during the Norfolk Vanguard examination process early in 2019, which we understand to have been used in the East Anglia 1N and 2 CIAs. However, in May 2019 further Marine Conservation Zones were designated in English waters (e.g. Markham's Triangle, Holderness Offshore) and therefore it is not clear whether and to what extent potential measures associated with new designations or possible proposals in other North Sea have been assessed and what fishing restrictions, if any, have been assumed. There are also other plans for marine protected areas, for instance in Danish waters, that have not been factored into the assessment as well as further wind farm projects – Horns Rev 3, Vesterhav north and south and Thor.	Consideration was given in the cumulative assessment to the proposals for closed areas to fishing associated with Marine Protected Areas (MPAs) and closures associated with measures implemented under the Marine Strategy Framework Directive (MSFD) raised as of concern by NFFO/VisNed during Section 42 consultation. The Applicant acknowledges that the designation of MPAs, and the potential for additional proposals for closed areas to fishing and proposals for new offshore windfarm projects is a continuous and evolving process. The inclusion of any additional MPAs, closures and or projects which may have been recently designated/proposed would add to the magnitude of effect identified in the assessment. It should be noted, however, that with regard to beam trawling (Dutch and Anglo-Dutch vessels) and Dutch seine netting, taking account of the proposed closures to fishing, the cumulative assessment identified impact magnitude as high (the highest potential magnitude score). As such, the inclusion of additional MPAs/proposed closures would not materially affect the conclusions of the cumulative assessment.
009	Existing plans and projects are not factored into the assessment and are assumed to form part of the baseline. We consider under the current methodology this will mask impacts already being carried by impacted parts of the fleet as the current assessment is not informed by the extent of fishing grounds needed to sustain particular fleet	As previously described, the distribution and level of fishing activity identified in the baseline characterisation already takes account of the presence of existing projects / activities. As such, including existing projects / activities for cumulative assessment would represent double counting of their effect.

No.	Relevant Representation	Applicant's Comments
	segments. This approach results in a "shifting baseline syndrome", similar to that which is attributed to environmental change, as reference points change from one project application to the next with incremental impacts not being fully accounted for under a highly qualitative and potentially subjective assessment methodology.	
Mitigation and Monitoring		
010	SPR has stated that it will develop a Fisheries Liaison and Co-existence Plan post consent. We consider the plan should, among other things, cover all commitments to all Fisheries mitigation. In addition to the matters related to commercial fisheries listed in schedule of mitigation we wish to see the following commitments: • Preference for inter-array cable planning to minimise crossing predominant fishing tows, hence reducing potential for cable- fisheries interactions, including snagging risks. • The cable burial plan should be consulted on with the fishing industry. • The results of post cable burial inspections should be communicated to the regulator and the fishing industry. • The cable burial risk assessment should comprise an assessment of cable exposure risk as well as risk to other marine users. It should be reappraised at appropriate intervals during the operational phase of the project. • The cable burial risk assessment should be linked to an appropriate cables survey/monitoring regime. • Burial status results from monitoring should be communicated to the fishing industry.	The Fisheries Liaison and Co-existence Plan (FLCP), (as secured in condition 17 of the generation DML and condition 13 of the transmission DML) which will be produced post-consent, and submitted to the MMO for review and approval, will describe the Applicant's approach to facilitating co-existence and to minimising disruption to the fishing industry. Due consideration will be given in the FLCP to key aspects identified by NFFO / VisNed such as liaison with the fishing industry and information sharing as well as measures to minimise potential for snagging risk and the monitoring of cables.

No.	Relevant Representation	Applicant's Comments
	• Exposed cables should be protected by guard vessel or other equivalent at-site measures until appropriate remedial measures can be completed. • Post remediation works surveys should be undertaken and communicated to the fishing industry to provide assurance that no residual snagging risks remain.	
011	Amendment to notification of cable exposure risks: In order to achieve consistency with draft best practice guidance of the Fisheries Liaison with Offshore Wind and Wet Renewable Group we suggest the following amendment (in red) to Schedule 13 Part 2, Section 10 (12) Notifications and inspections and Schedule 14, Part 2, Section 6 (12): *(12) In case of a state of shallow burial or exposure of cables on or above the seabed, the undertaker must, within three working days following identification of a cable exposure, notify mariners by issuing a notice to mariners and by informing Kingfisher Information Service of the location and extent of exposure.*	The Applicant considers that the wording proposed in the ***draft DCO*** (APP-023) is appropriate: (*12) In case of exposure of cables on or above the seabed, the undertaker must, within three days following identification of a cable exposure, notify mariners by issuing a notice to mariners and by informing Kingfisher Information Service of the location and extent of exposure.* The above is in line with the wording agreed with the Maritime and Coastguard Agency (MCA). The Applicant notes that the draft Guidance referred to by NFFO/VisNed (Fishing Liaison with Offshore Wind and Wet Renewables (FLOWW) - draft Recommendations for Fisheries-Cable Interactions, Planning and Mitigation, and Guidance on The Offshore Transmission Owners (OFTOs) Regime) is currently a working draft for consultation within the FLOWW Group and yet to be finalised and published.
012	We encourage support with the adoption of the Fish Safe or equivalent device by fishing vessels operating in the area – see http://www.fishsafe.eu/en/fishsafe-unit.aspx. This technology, which combined with other safety elements above, provides automated means of integrating safety information into the navigational systems on fishing vessels that in turn provide a real-time warning of safety hazards in the wheel-house. This will greatly promote safe working regime around the vicinity of the project and minimise the likelihood	A range of measures of relevance to ensuring safety during construction and operation will be implemented by the Project. For instance, timely and efficient Notices to Mariners (NtMs), Kingfisher and other navigational warnings will be issued to the fishing industry prior to all survey and construction works through a project specific marine co-ordination system as secured in conditions 10 (notifications) and 11 (aids to navigation) of

No.	Relevant Representation	Applicant's Comments
	of incidents occurring in an area where there exist high levels of fishing activity.	the generation DML and conditions 6 (notifications) and 7 (aids to navigation) of the transmission DML. In addition, measures such as adherence to FLOWW guidance, cable burial, appropriate liaison and information sharing and the production of a FLCP, (as secured in conditions 17 of the generation DML and 13 of the transmission DML) will also be undertaken.
013	We encourage the use of funding arrangements like the West of Morecombe Fisheries Fund as a mechanism to support fishing industry stakeholders affected by the project and provisioning of work opportunities (e.g. guard vessels or surveys for example) available to affected fisheries stakeholders as far as practically possible.	The Applicant considers the measures currently proposed are appropriate: • Adherence to FLOWW guidance, cable burial, the undertaking of appropriate liaison and information sharing and the production of a FLCP, (as secured in conditions 17 of the generation DML and 13 of the transmission DML) • In addition, a range of measures of relevance to ensuring safety during construction and operation will be implemented by the Project. For instance, timely and efficient Notices to Mariners (NtMs), Kingfisher and other navigational warnings will be issued to the fishing industry prior to all survey and construction works through a project specific marine co-ordination system as secured in conditions 10 (notifications) and 11 (aids to navigation) of the generation DML and conditions 6 (notifications) and 7 (aids to navigation) of the transmission DML.

5.4 Norfolk Independent Fisherman Association (RR-061)

Table 58 Applicant's Comments on Norfolk Independent Fisherman Association's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	We, the Norfolk Independent Fisherman Association, object to this application on the grounds that a number of our members will be financially at a loss and it will interrupt our fishing operations. We are all mainly static gear. There will also be extra running costs for our members and permanent loss and interruption of our fishing grounds.	Due consideration has been given in ***Chapter 13 Commercial Fisheries*** (APP-061) to the potential impacts of the Project on fishing activity. The available data and information obtained during consultation in respect of the location of fishing grounds of local UK vessels suggest that the majority of activity in areas relevant to the offshore development areas occurs across the offshore cable corridor, although some vessels may target grounds as far out as the windfarm site. Potential loss of fishing grounds to the UK local fleet would therefore for the most part be a result of export cable installation activities during the construction phase, and therefore localised and temporary. Furthermore, it should be noted that as identified in ***section 13.3.3*** of ***Chapter 13 Commercial Fisheries***, in instances when static fishing gear may need to be temporarily relocated due to construction activities, appropriate evidence-based mitigation, as specified in Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) Guidelines[69] [70] will be applied. During the operational phase, the presence of export cables would for the most part not result in a material loss of fishing grounds as normal fishing activity would occur in areas where cables are installed except in instances when temporary maintenance works are required. Similarly, given that existing legislation does not prevent fishing from occurring in operational windfarms, it is anticipated that fishing vessels (including those that operate static gear) would be able to operate within the windfarm sites. As outlined in ***Chapter 13 Commercial Fisheries*** (APP-061), consultation with the fishing industry is on-going and will continue post-consent. The Applicant has appointed a Fisheries Liaison Officer (FLO) to work with the fishing industry across all East Anglia projects, including the Projects together with East Anglia ONE and East Anglia THREE.

[69] FLOWW Best Practice Guidance for Offshore Renewables Developments: Recommendations for Fisheries Liaison) (2014). FLOWW Best Practice
[70] Guidance for Offshore Renewables Developments: Recommendations for Fisheries Disruption Settlements and Community Funds. FLOWW (2015).

No.	Relevant Representation	Applicant's Comments
		Timely and efficient Notices to Mariners (NtMs), Kingfisher and other navigational warnings will be issued to the fishing industry prior to all survey and construction works through a project specific marine co-ordination system In addition, in order to facilitate co-existence and minimise disruption to fishing activities, Fisheries Liaison and Co-existence Plans (FLCPs) will be produced post-consent for the Project.as secured in condition 17 of the generation DML and condition 13 of the transmission DML.,

5.5 Rijkswaterstaat (RR-066)

Table 59 Applicant's Comments on Rijkswaterstaat's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	We have a concern regarding the transboundary impacts in chapter 12.8 on offshore ornithology. In the commentary column it is stated that at the time of writing no specific information was found in relation to turbine numbers and specifications or ornithology assessments. However, we recently upgraded the Ecology and Cumulation Framework. The original methodology is described (also in English) at this site: https://www.noordzeeloket.nl/en/functions-and-use/offshore-wind-energy/ecology/ In these calculations, scenario's for size and number of turbines are used for the different plans up to 2030. We would appreciate if in the EIA information is used on planned turbine's in the Netherlands EEZ when assessing the accumulation of transboundary impacts.	The Applicant considers that the reports provided are too high level to allow a meaningful assessment to be conducted and lack detail such as assumptions on flight heights and avoidance rates which were used. In some cases the assumptions are not realistic, for example in the framework for assessing ecological and cumulative effects (KEC) on future wind farms up to 2030, all wind farms are attributed a standard 3MW wind turbine generator (WTG) (as detailed in section 1 of the Update of KEC bird collision calculations in line with the Roadmap[71]) rather than the WTGs likely to be built . ***Information to Support Appropriate Assessment*** – ***HRA Screening Report*** (APP-044) considers potential effects of the Project on transboundary SPAs including sites in the Netherlands, all of which were screened out. The cumulative impact assessment in ***section 12.8*** of ***Chapter 12 Offshore Ornithology*** (APP-060) references seasonal biologically defined minimum population sizes (BDMPS) for UK waters (Furness 2015)[72] which include migratory populations of birds from outside of UK waters. Therefore, the cumulative assessment already takes account of 'non-UK' birds and is considered to be of an appropriate scale for an offshore wind farm in UK waters. If detailed information on Transboundary projects was available in a format that was comparable to the predictions for UK offshore wind farms, a transboundary assessment could be more detailed and include quantitative consideration of windfarms outside the UK. However, there would be a requirement to expand the seabird reference populations accordingly. The result would be to add more projects (and impact) but also increase the population size against which impacts are judged. Therefore, it is considered that the cumulative impact assessment undertaken (***section 12.7***) provides a precautionary assessment of the likely impacts for each species and a robust assessment of the worst case (***section 12.8*** of ***Chapter 12 Offshore Ornithology*** (APP-060)).

[71] Available at: https://www.noordzeeloket.nl/publish/pages/165411/annex_update_kec_bird_collision_calculations_adding_owez_and_pawp.pdf
[72] Furness, R.W. (2015) Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS). Natural England Commissioned Report Number 164.

5.6 Royal Mail (AS-011)

Table 60 Applicant's Comments on Royal Mail's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	Royal Mail Group Limited (Royal Mail) hereby wishes to notify the Examining Authority under section 89(2A) b of the Planning Act 2008 that Royal Mail is to become an Interested Party to the Examination into East Anglia TWO.	Noted.
002	Under section 35 of the Postal Services Act 2011 (the "Act"), Royal Mail has been designated by Ofcom as a provider of the Universal Postal Service. Royal Mail is the only such provider in the United Kingdom. The Act provides that Ofcom's primary regulatory duty is to secure the provision of the Universal Postal Service. Ofcom discharges this duty by imposing regulatory conditions on Royal Mail, requiring it to provide the Universal Postal Service. The Act includes a set of minimum standards for Universal Service Providers, which Ofcom must secure. The conditions imposed by Ofcom reflect those standards. Royal Mail is under some of the highest specification performance obligations for quality of service in Europe. Its performance of the Universal Service Provider obligations is in the public interest and this should not be affected detrimentally by any statutorily authorised project. The Government imposes financial penalties on Royal Mail if its Universal Service Obligation service delivery targets are not met. These penalties relate to time targets for: • collections,	Noted.

No.	Relevant Representation	Applicant's Comments
	• clearance through plant, and • delivery. Royal Mail's postal sorting and delivery operations rely heavily on road communications. Royal Mail's ability to provide efficient mail collection, sorting and delivery to the public is sensitive to changes in the capacity of the highway network. Royal Mail is a major road user nationally. Disruption to the highway network and traffic delays can have direct consequences on Royal Mail's operations, its ability to meet the Universal Service Obligation and comply with the regulatory regime for postal services thereby presenting a significant risk to Royal Mail's business.	
003	The construction phase of East Anglia TWO may present a risk to Royal Mail operations through traffic impact. Royal Mail has two operational facilities in close proximity to the on shore DCO boundary as below: • Leiston Delivery Office, 14 Sizewell Road, Leiston IP16 4AA - 1.2 miles to the nearest point of redline boundary, and • Saxmundham Delivery Office, 48 High Street, Saxmundham IP17 lAA - 1.8 miles to the nearest point of redline boundary. Royal Mail's other operational facilities in the surrounding area are identified below: • Ipswich Vehicle Market - Charnwood Compound, Woodbridge IP13 9HE - 9 miles	The Applicant notes Royal Mail's concerns regarding road closures and disruption during the construction phase. The Project onshore cables would need to be installed across the B1353, B1122, B1069 and Grove Road. To ensure that these roads can remain open at all times and to minimise disruption it is proposed that: • The road crossings would be completed in two stages maintaining one traffic lane in each direction; • Traffic would be controlled through temporary traffic signals; • A safe route would be maintained for pedestrians through the works area along the B1122; • The Applicant would consult with Suffolk County Council and local stakeholders to develop the final Construction Traffic Management Plan (CTMP) and Travel Plan (TP) as part of the discharge of requirements process. Requirement 28 of the ***draft***

No.	Relevant Representation	Applicant's Comments
	• Wickham Market Vehicle Park - 36 High Street, Woodbridge IP13 OQS – 10 miles • Stowmarket Delivery Office - 62 Ipswich Street, Stowmarket IP141AA – 27 miles Every day, in exercising its statutory duties Royal Mail vehicles use all the main roads that may potentially be affected by additional traffic arising from the construction of East Anglia TWO. Any periods of road disruption/ closure, night or day, will have the potential to adversely impact Royal Mail operations.	***Development Consent Order*** (DCO) (APP-023) requires the final CTMP and TP to be submitted to and approved by the relevant planning authority in consultation with the relevant highway authority and it must be in accordance with the ***Outline CTMP*** (APP-586) and ***Outline TP*** (APP-588). The ***Outline CTMP*** and ***Outline TP*** have been submitted with the application; • Advanced signing would be implemented to assist drivers in finding alternative routes; and • The works would be staggered, i.e. not closing a lane on the B1122 at the same time as the B1069 (***section 26.3.3*** of ***Chapter 26 Traffic and Transport***) (APP-074). • ***Section 3.2*** of the ***Outline CTMP*** describes the need for traffic management measures at Church Road, Friston during the construction of a discharge pipe to manage surface water from the onshore substation attenuation ponds. Notification of all traffic management measures will be in accordance with the requirements of the New Roads and Street Works Act 1991. Potential driver delays are assessed in ***section 26.6.1.11*** of ***Chapter 26 Traffic and Transport***. Sensitive driver delay locations are shown in ***Figure 26.7*** (APP-312). It is noted in the assessment that without mitigation, there may be potentially significant driver delays at A1094 and B1069 junction and the A12 and A1094 junction, associated with the increase in construction traffic movements through these junctions during the morning (07:30 – 08:30) and evening (16:30 – 17:30) peak hours. The ***Outline TP*** includes details of how employee traffic movements would be controlled within peak hours to ensure that delays are managed to low magnitude levels and there are no significant driver delays.
004	Royal Mail does not wish to stop or delay East Anglia TWO from coming forward for development. However, Royal Mail does wish	The Applicant notes Royal Mail's need to ensure the protection of its future ability to provide an efficient mail sorting and delivering service and

No.	Relevant Representation	Applicant's Comments
	to ensure the protection of its future ability to provide an efficient mail sorting and delivering service to the public from and to the above identified operational facilities in accordance with its statutory obligations. In order to do this, Royal Mail requests that: • the DCO includes specific requirements that during the construction phase Royal Mail is consulted by East Anglia TWO Limited or its contractors at least one month in advance on any proposed road closures I diversions/ alternative access arrangements, hours of working, and the content of the final Construction Traffic Management Plan (CTMP), and • the final CTMP includes a mechanism to inform major road users (including Royal Mail) about works affecting the local highways network.	will work with Royal Mail to ensure that this statutory obligation is not significantly affected. An ***Outline CTMP*** (APP-586) has been submitted as part of the application. This provides information regarding control of HGV movements, offsite highway works and monitoring and enforcement. An ***Outline Access Management Plan*** (APP-587) and ***Outline Travel Plan*** (APP-588) have also been submitted which provide details of points of access to onshore infrastructure and how employee traffic will be managed and controlled during the construction period respectively. The Applicant has committed to no roads being fully closed while the onshore cables are installed under the public highway as part of embedded mitigation for the Project (***section 26.3.3*** of ***Chapter 26 Traffic and Transport***). A CTMP will be produced post-consent, prior to commencement of the onshore construction works, and will be in line with the ***Outline CTMP*** (as required by the ***draft DCO*** (APP-023). Once contractors have been appointed, the final CTMP measures would be further developed and thereafter submitted to the relevant planning authority for approval in consultation with the relevant highway authority (as required under DCO Requirement 28 (Traffic)), prior to the commencement of onshore works. Information on works affecting the local highways network will be available to the Royal Mail through the usual statutory channels.
005	Royal Mail reserves its right to object to the DCO application if the above requests are not adequately addressed. Royal Mail welcomes contact from East Anglia TWO Limited or its consultants during the Examination in order to assist with addressing the above requests.	Noted.

No.	Relevant Representation	Applicant's Comments
	Royal Mail will be monitoring the progress of the Examination. It may simply rely on this statement but reserves the right to make further representations to the Examination in due course once further information is available.	

5.7 Royal Society for the Protection of Birds (RR-067)

Table 61 Applicant's Comments on Royal Society for the Protection of Birds' Relevant Representation

No	Relevant Representation	Applicant's Comments
001	The RSPB supports the deployment of renewable energy projects, providing that they are sited in appropriate places and designed to avoid potential adverse impacts on wildlife. We are grateful for the constructive pre-application discussions that have taken place with Scottish Power Renewables in respect of this proposal, particularly through the Evidence Plan process. Whilst some methodological concerns remain, progress towards resolving a number of issues was made during the pre-application discussions for this project. However, we continue to have significant concerns relating to project's alone, in-combination and cumulative collision risk and displacement impacts.	Noted.
002	<u>Impacts from the project alone</u> The RSPB considers that there are potential adverse effects on the integrity of the following sites and features as a result of predicted collision mortality from this project alone: • The gannet population of the Flamborough and Filey Coast (FFC) SPA The RSPB recommends that the predicted impacts on this species alone are also presented as a Population Viability Analysis output in the form the Counterfactual of Population Size.	The Applicant has provided an assessment of the potential project-alone effects on gannet associated with the Flamborough & Filey Coast (FFC) SPA in ***section 4.6.1*** of the Information to Support Appropriate Assessment Report (APP-043). The assessment concluded no Flamborough & Filey Coast (AEoI) of FFC SPA from effects on gannets due to the Project. As detailed in ***section 4.6.1.2.3*** of the ***Information to Support Appropriate Assessment Report*** (APP-043) the mean annual gannet collision mortality estimate was 47, using a 98.9% avoidance rate. If the avoidance rate calculated by Bowgen and Cook (2018) of 99.5% (derived from an empirical radar study) is applied, then the annual total would be reduced to 21. The number of the higher collision estimate apportioned to the FFC SPA using Natural England's preferred methods (at 98.9% avoidance and the full breeding season) is 16.4, while using the migration free breeding season this is reduced slightly to 14.4. These would not increase the background mortality rate of the FFC

No	Relevant Representation	Applicant's Comments
		SPA population by more than 1%, and therefore this magnitude of potential impact would be undetectable. Consequently, the Applicant does not consider there to be any requirement for further assessment of the project alone impacts, and on the basis of Natural England's Relevant Representation, the Applicant considers this to also be Natural England's position. However, as agreed at a Statement of Common Ground (SoCG) meeting on the 11th May 2020, the Applicant will provide an updated project-alone assessment on gannet presented as a Population Viability Analysis output in the form the Counterfactual of Population Size which will be submitted during Examination.
003	Collision risk from the project in-combination and cumulatively with other projects The RSPB considers that there are potential adverse effects on the integrity of the following sites and features as a result of predicted collision mortality from this project in-combination with other plans and projects: • The gannet population of the Flamborough and Filey Coast SPA; • The kittiwake population of the Flamborough and Filey Coast SPA; • The lesser black-backed gull population of the Alde-Ore Estuary SPA. We also consider that cumulative (EIA) collision risk impacts on gannet, kittiwake, great black-backed gull and lesser black-backed gull are significant. In addition,	***The Information to Support Appropriate Assessment Report*** (APP-043) concluded no AEoI on the Flamborough and Filey Coast (FFC) SPA for gannet or kittiwake or on the Alde-Ore Estuary SPA for lesser black-backed gull. As discussed at SoCG meeting 1 on the 20th of February 2020 with the RSPB, in order to avoid the duplication of work, the Applicant will give further consideration to cumulative / in-combination matters following the issue of a Secretary of State decision on Norfolk Vanguard and Hornsea Project 3. This decision has now been delayed until 1st July 2020.

No	Relevant Representation	Applicant's Comments
	we consider the EIA cumulative collision risk impacts on greater black backed gulls are significant.	
004	Displacement from this project in-combination and cumulatively with others We consider that there are potential adverse effects on the integrity of the following sites and features as a result of predicted displacement from this project in-combination with other plans and projects: • The razorbill population of the Flamborough and Filey Coast SPA; • The guillemot population of the Flamborough and Filey Coast SPA; • The red-throated diver population of the Outer Thames Estuary SPA. We also consider that cumulative (EIA) displacement impacts on red-throated diver, guillemot and razorbill are significant.	***The Information to Support Appropriate Assessment Report*** (APP-043) concluded no AEoI on the Flamborough and Filey Coast (FFC) SPA for razorbill or guillemot or on the Outer Thames Estuary SPA for red-throated diver. As discussed at SoCG meeting 1 on the 20th of February 2020 with the RSPB, in order to avoid the duplication of work, the Applicant will give further consideration to cumulative / in-combination matters following the issue of a Secretary of State decision on Norfolk Vanguard and Hornsea Project 3. This decision has now been delayed until 1st July 2020.
005	Impacts on the seabird assemblage feature of Flamborough and Filey Coast SPA We note, as advised by Natural England, that a breeding seabird assemblage (comprising kittiwake, gannet, guillemot and razorbill, northern fulmar, Atlantic puffin, herring gull, European shag and great cormorant) is a designated feature of this SPA but that a detailed assessment of impacts on this feature and its species has not been carried out. Given the level of in-combination collision risk to kittiwake and collision	The Applicant will provide an assessment of the potential effects on the seabird assemblage feature of the FFC SPA during the examination. This will consider the conclusions of the assessment of the individual features for which there is potential for connectivity with the Project and which are included in the assemblage feature (i.e. gannet in the breeding and nonbreeding seasons, kittiwake, guillemot and razorbill in the nonbreeding season). This will consider the potential for both project-alone and in-combination effects. It is worth noting that in the Applicant's assessment (APP-043) it was concluded that there will be no AEoI for any of the individual species either for the Project alone or in-combination, and therefore

No	Relevant Representation	Applicant's Comments
	risk to gannet and displacement to razorbill and guillemot effects on the abundance of this feature are likely to result. We therefore consider that it is not possible to rule out adverse effects on the integrity of the following feature from this project in-combination with others: • The breeding seabird assemblage of the Flamborough and Filey Coast SPA	assessment of the assemblage feature is expected to reach the same conclusion (of no AEoI) for the Project and in-combination.
006	Conclusion This project can only be granted consent if, subsequent to the Examining Authority's report, the Secretary of State is convinced that it will not have an adverse effect on the integrity of the European sites and their species concerned, having applied the precautionary principle and taken account of the conservation objectives (including the relevant Natural England supplementary advice on those conservation objectives) for those sites and their habitats and species. Waddenzee (CJEU Case-127/02; [2004] ECR-7405 at [56]-[57]) confirmed that where doubt remains as to the absence of adverse effects on the integrity of the site, approval should be refused, subject to the consideration of the derogation tests of alternative solutions, imperative reasons of overriding public interest and the provision of compensatory measures as set out in regulations 64 and 68 of the Conservation of Habitats and Species Regulations 2017 and regulations 29 and 36 of the Conservation of Offshore Marine Habitats and Species Regulations 2017.	Noted.

No	Relevant Representation	Applicant's Comments
007	Concerns regarding the assessment of collision risk (a) Apportioning of mortality to Alde-Ore Estuary SPA We have concerns about the methods used for apportioning of lesser black-backed gull collision mortality to the Alde-Ore Estuary SPA and the evidence used to support this. We consider the inclusion of birds from urban colonies in the apportionment calculation dilutes the potential significance of impact on the Alde-Ore Estuary SPA.	The RSPB is correct that iclusion of birds from other colonies, whether rural or urban, will reduce the level of impact apportioned to the SPA colony, however the Applicant considers such apportioning of effects among candidate colonies to be entirely appropriate and indeed the method used to calculate the proportional contributions to the on-site population is the one recommended by the statutory agencies for this purpose and hosted on the Scottish Natural Heritage (SNH) website (https://www.nature.scot/interim-guidance-apportioning-impacts-marine-renewable-developments-breeding-seabird-populations). Furthermore, as discussed in ***the Information to Support Appropriate Assessment Report*** (APP-043) this method is in fact almost certainly precautionary and tagging work indicates much lower connectivity (2% compared with 41% for East Anglia TWO and 24% for East Anglia ONE North). Thus, the Applicant considers that the assessment of impacts on the lesser black-backed gull population of the Alde-Ore Estuary SPA is robust and precautionary and is in line with the methodology agreed with SNCBs.
008	(b) Gannet avoidance rate Whilst the RSPB accepts the SNCB's recommended amendment to the gannet avoidance rate (AR) from 98% to 98.9% for non-breeding birds, we do not agree that this figure should be applied to the breeding season due to the lack of available evidence relating to breeding birds. As the BTO avoidance rate review was heavily biased to non-breeding gannets, we prefer a more precautionary AR of 98% for the breeding season.	Current Natural England (NE) advice is to use a year-round Avoidance Rate (AR) of 98.9% for gannet. Given that NE are the statutory body for offshore ornithology matters, the Applicant will continue to base assessments on their advice.
009	Consented capacity of windfarms It is stated that many of the collision estimates for other windfarms are based on higher numbers of turbines than were actually built. This is an acceptable point for windfarms where the DCO has been amended and	The Applicant disagrees with this position as it is believed that there are a number of mechanisms that would prevent or stop developers building out to their original consent. Nonetheless, the overall mortality figures on which the conclusions of the cumulative assessments are based, are formulated from project designs from original or amended DCOs which is in line with Natural England and RSPB recommendations. Precaution in the ornithology assessment with regards to as-built

No	Relevant Representation	Applicant's Comments
	therefore there is legal certainty regarding the reduction. Where windfarms still have their original DCOs (and Crown Estate licences), it is not appropriate to do anything less than assess the full extent of those DCOs when considering in-combination/cumulative effects e.g. on lesser black-backed gull, gannet and kittiwake. This will also be relevant to assessing impacts on the breeding seabird assemblage feature of the Flamborough and Filey Coast SPA as mentioned in section 2(d) above.	versus consented design is explained in ***section 2.3*** of the ***Appendix 4*** of this document.
010	<u>Onshore ornithology impacts</u> The proposed cable route crosses land within the Sandlings SPA and runs close to both the eastern and western sides of that SPA at either side of this crossing point. The RSPB has therefore raised concerns about potential disturbance and loss of habitat affecting breeding woodlark and nightjar of the Sandlings SPA and turtle dove and nightingale populations associated with the Leiston-Aldeburgh SSSI. The RSPB is grateful for constructive engagement during the pre-application phase with the developer, during which we engaged in discussions and shared relevant data in order to understand and attempt to reduce the potential impacts. We are therefore pleased that the application includes mitigation proposals including a breeding season restriction on work at the crossing, location of the cable route away from the SPA boundary and a mitigation area for turtle doves. We do however have some remaining concerns about the potential for disturbance to affect SPA species during	Impacts on nightjar and woodlark (qualifying species of the Sandlings SPA) with respect to habitat loss and disturbance impacts are assessed within ***sections 23.6.3.1*** and ***23.6.3.2*** for each impact respectively. This includes consideration of populations within the Sandlings SPA. These potential impacts include habitat loss, construction disturbance, disturbance from maintenance activities and disturbance to birds from operational lighting and noise. The Applicant has proposed a number of mitigation measures to reduce the impact on bird species including a turtle dove feeding habitat creation initiative within the onshore development area (see ***section 6.3.4.1*** of the ***OLEMS*** (APP-584) for more details). ***Section 6.3.2*** outlines examples of mitigation measures that may be employed which includes development of the Breeding Bird Protection Plan (see ***section 6.4*** of the ***OLEMS***); pre-construction bird surveys; minimising of noise, light and disturbance; monitoring of construction activities by an ECoW or suitably qualified ornithologist; and halting of construction works where breeding bird activity within the SPA is recorded within 200m of construction works until a disturbance risk assessment is undertaken by a suitably qualified ecologist. These commitments are supported by Requirement 21 within the ***draft DCO*** (APP-023).

No	Relevant Representation	Applicant's Comments
	the construction period due to the proximity of nightjar and woodlark territories to the proposed cable route and consider that more information is required regarding the timeline and details of the construction work within the SPA.	The Applicant will continue to engage with the RSPB through the SoCG process to discuss outstanding concerns.
011	Notes Due to serious resource limitations, the RSPB regrets that it will not be able to attend the issue specific hearings covering ornithological impacts. We propose to engage with the Examination primarily through the agreement of a Statement of Common Ground with Scottish Power Renewables, setting out clearly the areas of agreement and disagreement to aid the Examining Authority. Our key concern is that the derogation tests under Habitats Regulations are properly explored and tested through the Examination and wish to focus our limited resources on any discussions surrounding these critical issues. The RSPB reserves the right to add to and/or amend its position in light of changes to or any new information submitted by the Applicant.	Noted.

5.8 The Suffolk Coast Destination Management Organisation (RR-082)

Table 62 Applicant's Comments on The Suffolk Coast Destination Management Organisation's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	1. TSC was formed in 2012, with the purpose of promoting the Suffolk coast (hereafter East Suffolk) as a visitor destination. TSC has a volunteer board, 1.9 staff (FTE) and a membership of 220 businesses. TSC does not cover a fixed and formal geographical catchment, but is broadly responsible for marketing the tourism assets of East Suffolk. TSC acknowledges the important part that renewable energy can provide in the nation's energy mix. The value of tourism within East Suffolk is approximately £600M per annum. Within the nearby Suffolk Coasts and Heaths Area of Outstanding Natural Beauty, tourism is worth £210M per annum, supporting 4,655 jobs (2017 Volumes and Values study). TSC agrees with SPR's statement that tourism "is an important part of the wider economy".	Noted.
002	2. In 2019 TSC commissioned an independent survey to measure the impacts on tourism of the two SPR projects (East Anglia North One and East Anglia Two) and the EDF Sizewell C project. The survey was carried out by leading consultants BVA-BDRC, and was informed by 1700 online respondents, 69 face-to-face respondents and 113 business. 3. The survey produced these key findings: • East Suffolk is first and foremost perceived as a place to relax and escape in a natural setting. 84% of respondents considering a visit cited nature-related activities as their main reason for visiting the area. • 29% of the regional market are less likely to visit during the construction phases of the projects. • 11% of those surveyed said they were "a lot less likely to visit".	Noted. In light of the interpretation placed upon on the Energy Coast Report in some Relevant Representations, the Energy Coast Report is currently being reviewed by the Applicant.

No.	Relevant Representation	Applicant's Comments
	• There is evidence that beyond the construction phase, some respondents were still significantly less likely to visit than before the work commenced. • The major areas of concern to the regional market are "loss of tranquillity, nature and unique charm" and "road and traffic problems". • The majority of business respondents were in the accommodation sector. 72% of all businesses are either "fairly worried" or "very worried" about the developments. 75% of those already aware of the developments expect their turnover to decrease. • Although outnumbered by those less likely to visit, a small minority of respondents 3% suggested they would be a lot more likely to visit East Suffolk during this period. For more information on the full report please visit https://www.thesuffolkcoast.co.uk/tourism-research-and-reports 4. Because of the findings of the report, TSC is concerned that both the perception and reality of East Suffolk as a highly attractive visitor destination will be damaged by the onshore impacts of the Scottish Power projects (East Anglia One North and East Anglia Two) and the five other major energy projects which are planned for the area.	
003	5. Part of the DMO's concern relates to the impact upon the A12 which is the only major route to East Suffolk. The A12 is already heavily congested particularly in peak holiday periods. Further the A12 and the A1094 are the roads along which a substantial number (and probably the majority) of visitors travel. Overloading the road network will damage (i) both the perception and reality of East Suffolk a tranquil and attractive visitor destination and (ii) accessibility to East Suffolk.	The level of existing travel along the A12 and A1094 is noted and understood by the Applicant (***section 26.5.1.1*** of ***Chapter 26 Traffic and Transport*** (APP-074)). This has been informed by traffic flow data (***section 26.5.2***). ***Table 26.25*** summarises the results of the modelling assessment undertaken for driver capacity at the junction of the A12 and A1094. It is recognised by the Applicant that with the addition of traffic from the Project, the junction would be operating close to capacity with potentially significant changes in delays and therefore the magnitude of change is assessed as high on a receptor

No.	Relevant Representation	Applicant's Comments
		of low sensitivity, resulting in a moderate adverse impact (in EIA terms). The Applicant has therefore committed to various measures to manage employee traffic movements as defined in the ***Outline Construction Traffic Management Plan (OCTMP)*** (APP-586) and ***Outline Travel Plan*** (APP-588) in order to minimise impacts. No stage of onshore works can commence for that stage until the CTMP and Travel Plan have both been submitted and approved by the relevant planning authority in consultation with the relevant highway authority. This is secured under requirement 28 of the ***draft DCO*** (APP-023).
004	6. TSC does not consider that the socio-economic effects of the Scottish Power projects, and the other five major energy projects currently planned, have been robustly and cumulatively assessed by Scottish Power, particularly given the independent report referred to above. Given the importance of the tourism economy to East Suffolk an Independent Report should be commissioned on the impact of these projects on the tourist economy. Such a report should also take into account that the Crown Estate is planning another round (Round 4) of offshore wind farm projects in East Anglia which will require yet more onshore infrastructure.	As described in ***section 3.4*** of ***Chapter 30 Tourism, Recreation and Socio-Economics***, there is no statutory guidance to direct the assessment of socio-economic, tourism and recreation impacts on local communities affected by Nationally Significant Infrastructure Projects (NSIPs). The Applicant has therefore developed an assessment methodology based on key legislation and regional and local policy and guidance. Please see ***sections 30.4.1.1***, ***30.4.1.2*** and ***30.4.1.3*** for demonstration of the Applicant's policy compliance for tourism, recreation and socio-economics. This is also provided in ***section 6.24*** of the ***Development Consent and Planning Statement*** (APP-579). ***Section 30.3.1.4*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** explains the various internationally recognised concepts for social impact assessment and how the Applicant has adopted a best practice 'Sustainable Livelihoods Approach'. With respect to Tourism, the Applicant has followed guidance notes published by the Office for National Statistics and the National Academy of Coastal Tourism (***section 30.4.1.4.3***). The Applicant has followed the latest and best available guidance in developing the assessment

No.	Relevant Representation	Applicant's Comments
		methodology and therefore consider both the project alone and cumulative assessments to be credible and robust. Furthermore, the Applicant's approach to the cumulative impact assessments (CIA) (***section 30.7*** of ***Chapter 30 Tourism, Recreation and Socio-Economics***) follows Planning Inspectorate Advice Note 17: Cumulative effects assessment relevant to nationally significant infrastructure projects (The Planning Inspectorate 2015) (***section 5.1*** of ***Chapter 5 EIA Methodology*** (APP-053)). ***Section 30.7.1*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** considers two construction scenarios for the CIA and depending on the impact, scenario 1 or scenario 2 is considered the realistic worst case scenario and applied in the CIA.: • Scenario 1 – the Projects are built simultaneously; and • Scenario 2 - the Projects are constructed sequentially CIA with other developments is considered in ***section 30.7.2.*** Firstly, all impacts considered in ***section 30.6*** have been assessed for the potential for temporal and spatial overlap with other projects. The second stage of the CIA is an assessment of whether there is spatial overlap between the extent of potential effects of the onshore infrastructure and the potential effects of other projects scoped into the CIA upon the same receptors. To identify whether this may occur, the potential nature and extent of effects arising from all projects scoped into the CIA have been identified and any overlaps between these and the effects identified in ***section 30.6***. Where there is an overlap, an assessment of the cumulative magnitude of effect is provided. The projects scoped in are summarised in ***Table 30.87.*** Following a review of projects for which construction has the potential to overlap temporally or spatially with the Projects, two developments have been scoped into the CIA for all impacts (Sizewell B and and Sizewell C)

No.	Relevant Representation	Applicant's Comments
		and three offshore wind developments (Norfolk Vanguard, Norfolk Boreas and Hornsea Project 3) have been scoped in for employment impacts only. The full list of projects for consideration has been developed in consultation with the Local Planning Authority. The remainder of the section details the nature of the cumulative impacts against all those receptors scoped in for cumulative assessment. ***Section 30.2*** summarises the consultation undertaken by the Applicant since developing the assessment methodology described above. The Applicant engaged with Suffolk DMO and statutory stakeholders (each providing independent input and feedback) as part of Expert Topic Group meetings in order to agree baseline data, assessment methodology and study areas. This was initiated in June and July 2018 during the Phase 3 Consultation phase. The responses received from stakeholders with regards to the Scoping Report, PEIR, as well as feedback to date from the tourism, recreation and socioeconomics ETG, are summarised in ***Appendix 30.1***, ***Tourism, Recreation and Socio-Economics Consultation Responses*** (APP-570) including details of how these have been taken account of within this chapter.
005	7. Given the likelihood of significant damage to the East Suffolk tourist economy and the absence of a robust and independent assessment of the potential damage, TSC has major concerns about the onshore infrastructure plans and therefore objects to the Scottish Power projects.	The Applicant notes the Suffolk Coast DMO's objection to the Project. ***Section 30.6.1.3*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** considers the potential for tourism and hospitality sector employment during construction and is determined as major beneficial significance. ***Section 30.6.1.4*** considers tourism and recreation disturbance during construction and is determined as negligible significance. During operation, long term tourism impacts are also assessed as negligible (***section 30.6.2.2***). This is true of both the Project and the Projects (***section 30.7***). Suffolk Coast Destination Management Organisations' (DMO) objection is noted. The Applicant is of the view that a robust assessment has been undertaken.

5.9 Suffolk Local Access Forum (RR-084)

Table 63 Applicant's Comments on Suffolk Local Access Forum's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	The Suffolk Local Access Forum is a statutory body set up under the Countryside and Rights of Way Act 2000 to advise the County Council and other bodies with regard to public access to the countryside. In the past we have been statutory consultees for Sizewell C and Network Rail so at our recent meeting we were dismayed that Scottish Power had not engaged with us regarding their proposals for bringing power from EA1N and EA2 ashore at Thorpeness to a new substation at Friston.	The Applicant notes the role of The Suffolk Local Access Forum as a statutory advisor to Suffolk County Council, whom the Applicant has comprehensively engaged and consulted with. For the purposes of the Application however, it is noted that Suffolk Local Access Forum are not a statutory consultee. The Applicant has engaged with the Local Planning Authority throughout the application process and held meetings with the Suffolk County Council PRoW Officer regarding temporary and permanent PRoW diversions (see ***section 3.2*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078)). This has informed the Applicant's ***Outline Public Rights of Way Strategy*** (APP-581). The Applicant has engaged with the Local Planning Authority regarding the ***Outline Landscape Mitigation Plan*** (OLMP) (APP-401 and APP-402) via a series of technical working group meetings (see ***section 8.4.3*** of ***Consultation Report*** (APP-029)). Comments on the proposals for a potential PRoW network routed around the onshore substation and National Grid infrastructure have been covered within the ***Outline Landscape and Ecological Management Strategy*** (OLEMS) (APP-584).
002	As the onshore works associated with the cable route will affect 26 public rights of way (PRoW) in the locality during construction, and whilst the substation works will also require the permanent stopping up of a section of PRoW to the north of the village of Friston; around the area the access network will be severely compromised by the construction of the substation and residents and visitors will suffer both temporary disruption and permanent loss of a key public footpath. SLAF would therefore expect any disruption to the PRoW network is minimised and where impacts cannot be	The impact on PRoW is noted by the Applicant. ***Table 30.37*** in ***section 30.5.4.1 of Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078) describes all PRoW which may be affected by the Project's onshore development area. Impacts to PRoW and management methods to minimise disruption are considered in ***section 30.6.1.4.2.1***. Further details on the temporary and permanent management of PRoW are included within the ***Outline PRoW Strategy (OPRoWS)*** (APP-581). A final detailed Public Right of Way Strategy (PRoWS) will be produced post-consent, during the detailed design phase of

No.	Relevant Representation	Applicant's Comments
	avoided, appropriate and timely mitigation needs to be provided.	the Project. The requirement to submit a PRoW Strategy for approval is secured by Requirement 32 of the ***draft Development Consent Order (DCO)*** (APP-023). This states that prior to carrying out works which would affect a PRoW a PRoW Strategy (based on the Outline PRoW Strategy) must, after consultation with the Local Highway Authority, be submitted to and approved by the Local Planning Authority. The ***draft DCO*** (APP-023) also requires that where an alternative right of way is proposed, it must be in place before the existing PRoW is stopped up (Article 10 (permanent diversions) and Article 11 (temporary stopping up).
003	The fact that many PRoWs along the cable corridor and substation site will only be closed temporarily does not mean that they are preserved as a local amenity when the ability to derive any enjoyment from them is severely reduced. We understand that the application does not recognise or mitigate for this loss of amenity.	The impact on PRoW and the need to mitigate this impact is noted by the Applicant. Potential temporary diversions have been proposed for 26 PRoW. The PRoWs to be temporarily stopped up / diverted are shown in the ***Temporary Stopping up of Public Rights of Way Plan*** (APP-013). ***Table 2.1*** in the ***Outline Public Rights of Way Strategy*** (APP-581) details the proposed management measures for PRoW requiring temporary control measures during construction. Temporary management measures may include: • Appropriately fenced (unmanned) crossing points; • Manned crossing points; and • Temporary diversions. Precise details for the management of each PRoW, including the specification of any PRoW temporary diversions during construction works, will be agreed with the Local Planning Authority (following consultation with the Local Highway Authority) through approval of the final PRoW Strategy, prior to commencement of any stage of the authorised development that would affect a PRoW specified in Schedule 3 of the ***draft DCO*** (APP-023).

No.	Relevant Representation	Applicant's Comments
		Article 11 of the ***draft DCO*** requires the alternative right of way to be in place to the reasonable satisfaction of the Local Highway Authority before the existing PRoW can be temporarily stopped up. The temporary diversions of 26 PRoW will involve a short diversion around construction works, allowing construction works to progress in the area of the original PRoW. Once these construction works (or a phase of construction works) are complete, the PRoW would be reinstated along its original route. Depending on the nature and timing of the construction works this temporary diversion arrangement may be implemented a number of times during construction. Given the onshore cable route will be constructed in sections, where there is a requirement to temporarily divert PRoW along the onshore cable route the original PRoW will be reinstated following the completion of the respective onshore cable route section. As such, the duration that each temporary PRoW diversion is in place along the onshore cable route will be less than the overall construction period for the Project. The Applicant considers the proposed temporary diversions to be adequate for the purposes of the Application. It should be noted that all proposed PRoW temporary diversions, and any amendments to them, will be discussed with the Local Planning Authority PRoW officer through the Statement of Common Ground process. The Applicant will consult with the Local Planning Authority PRoW officer in advance of approval of the final PRoW Strategy, prior to commencement of any stage of the authorised development that would affect a PRoW specified in Schedule 3 of the ***draft DCO*** (APP-023).
004	Scottish Power has also failed to acknowledge the effect these works will have on designated long distance routes that are widely used by walkers. These are the Sandlings Walk, and the Suffolk Coast Path (soon to be part of the National England Coast Path) which will be affected by the landfall site north of Thorpeness. The latter will be the first National Trail	The impact on PRoWs that include long-distance routes is noted by the Applicant. The Suffolk Coast Path PRoW crosses the onshore development area at landfall. Construction works at this location are restricted to underground works only (specifically horizontal directional drilling), therefore there is no interaction between the Project and the Suffolk Coast Path PRoW and no temporary control measures are required (***section 2.1*** of the ***Outline PRoW Strategy*** (APP-581)).

No.	Relevant Representation	Applicant's Comments
	in Suffolk and is anticipated to bring economic benefits to the region	With regards to the Sandlings Walk, it is the Applicant's view that the management measures and alternative routeing (to be agreed with the Local Planning Authority), in tandem with the experience gained through implementation of the East Anglia ONE project, will result in a limited impact on walkers. The Applicant will consult with the Local Planning Authority PRoW officer in advance of approval of the final PRoW Strategy, prior to commencement of any stage of the authorised development that would affect a PRoW specified in Schedule 3 of the ***draft DCO*** (APP-023). Article 11 of the ***draft DCO*** (APP-023) requires the alternative right of way to be in place to the reasonable satisfaction of the Local Highway Authority before the existing PRoW can be temporarily stopped up.
005	The permanent stopping up of the public footpath north of Friston village will remove a historic, tranquil and attractive walking route in a rural landscape and replace it with a much longer circuitous route that is not wholly screened from the new industrial landscape, running adjacent to the open road in parts and possibly in a ditch. During construction of the substation, there will be physical disruption, noise, a loss of tranquillity and severe visual impact which will continue following its construction.	The selected onshore substation location avoids all international, national, county and local landscape designations. The landscape at the substation site is not designated for any special qualities of peace or tranquillity. The public footpath north of Friston village will require permanent stopping-up and diversion (as listed in ***Table 3.1*** in the ***Outline Public Rights of Way Strategy*** (APP-581) and as shown on the ***Permanent Stopping up of Public Rights of Way Plan*** (APP-014)). Precise details for the management of this PRoW during construction works will be agreed with the Local Planning Authority (following consultation with the Local Highway Authority) through approval of the final PRoW Strategy, based on the ***Outline Public Rights of Way Strategy*** (APP-581), prior to commencement of any stage of the authorised development that would affect a PRoW specified in Schedule 4 of the ***draft DCO*** (APP-023). As set out in Article 10 of the ***draft DCO*** (APP-023), the existing PRoW cannot be extinguished until the Local Highway Authority confirms that the alternative PRoW has been created to the standard defined in the final PRoW Strategy. The potential impact of the extent and visual prominence of the onshore substation and National Grid substation is noted by the Applicant. Potential impacts with regard to historical setting and cultural heritage has been

No.	Relevant Representation	Applicant's Comments
		considered in ***section 24.6.2.1*** of ***Chapter 24 Archaeology and Cultural Heritage*** (APP-072). The ***OLEMS*** (APP-584) provides plans showing the proposed PRoW diversions in context with the operational onshore substation site and the outline landscaping and ecological mitigation measures proposed. An expanded PRoW network will be provided around the onshore substation and National Grid infrastructure location to mitigate the loss of the PRoW. The Applicant will continue to engage with the Local Planning Authority regarding the routeing of the permanent diversions which are outlined in the ***Outline PRoW Strategy*** (APP-581)). This is secured under Requirement 32 of the ***draft DCO*** (APP-023). Additionally, the Applicant will continue to engage with the Local Planning Authority regarding screening measures outlined in the ***OLEMS.*** Screening will be implemented as approved by the Local Planning Authority as part of the final Landscape Management Plan secured under Requirements 14 and 15 of the ***draft DCO***. With regards to noise and disruption during construction of the substation, ***section 25.6.1.1*** of ***Chapter 25 Noise and Vibration*** (APP-073) has considered the most sensitive noise receptors (residential dwellings) and concluded that with appropriate mitigation there are minor adverse impacts. Under Requirement 23 of the ***draft DCO***, construction hours for the transmission works must only take place between 0700 hours and 1900 hours Monday to Friday and 0700 hours and 1300 hours on Saturdays, with no activity on Sundays or bank holidays. Outside of these hours, construction work may only take place for essential activities. Potential impacts on landscape and visual receptors (including on the PRoW network) during construction and operation of the onshore substation and National Grid infrastructure are assessed in ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077).
006	SLAF is concerned as to the impact of the closure of so many PRoW's to enable the cable route and substation to be constructed. We would require more detail as to the phasing	The ***draft DCO*** (APP-023) sets out that the existing PRoW cannot be extinguished (in the case of permanent diversions) or temporarily stopped up (in the case of temporary diversions) until the Local Highway Authority has

No.	Relevant Representation	Applicant's Comments
	and duration of any closures, particularly where several PRoW's are close together and at the substation site as we are concerned that there could be closures and disruption of a network of PRoW all at the same time, leaving walkers with very limited or no access at all, particularly if similar closures and diversions were occurring around the Sizewell C construction site.	confirmed that the alternative public right of way has been created to the standard defined in the final PRoW Strategy. This is set out in Articles 10 and 11 of the ***draft DCO***. The final PRoW Strategy which requires to be approved by the Local Planning Authority in accordance with requirement 32 of the ***draft DCO*** will include details regarding phasing in accordance with the construction timetable.

5.10 Suffolk Preservation Society (RR-085)

Table 64 Applicant's Comments on Suffolk Preservation Society's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	The Suffolk Preservation Society (SPS) acknowledges the contribution that wind power will make towards the Nation's energy needs. Notwithstanding this, SPS's charitable objects are to protect and promote the special landscape and heritage of Suffolk by ensuring that proposals are critically assessed and properly mitigated. SPS operates as the county branch of CPRE. Having responded to the consultations and participated in the archaeology and cultural heritage working group, SPS remains concerned about the scale of this project and the enormity of its environmental impact. SPS wishes to register as an Interested Party on the following grounds:	Noted.
002	Onshore Impacts – Landscape and visual SPS's principal concern is the scale of the industrialising effect of the onshore substation within an area where its intrinsic rural character is defined by its historic landscape and buildings. Friston, a tiny rural village has remained substantially unchanged for centuries and will be overwhelmed by the substation.	It is noted by the Applicant that the presence of the onshore substation will represent a permanent / long-term change to the historic landscape character (HLC) to the west of Coldfair Green (and more specifically the northwest of Grove Wood) and within the immediate surrounding of the onshore substation location. However, the Applicant would dispute that Friston and the landscape at the onshore substation and National Grid infrastructure has remained "unchanged for centuries". ***Section 29.5.2*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077) outlines the presence of large-scale modern agricultural buildings in the local landscape; a strong sense of agri-business land use (associated with straight and regularised field patterns to accommodate modern farming practices); and the double row of overhead pylons and electrical lines crossing the landscape between Friston and Fristonmoor that form notable visual elements in the local setting. Their larger vertical scale and form tend to distort the sense of scale in the landscape.

No.	Relevant Representation	Applicant's Comments
003	The Environmental Statement underestimates the onshore landscape and visual impacts and does not truly reflect the character or the historic significance of the landscape and the resulting harm. This large alien feature will not integrate with this existing landscape but will dominate in terms of siting, scale and massing. The effectiveness of the proposed mitigation planting is ambitious and the reliability of the supporting visualisations is questionable. In some cases the mitigation planting being proposed is inappropriate and will create further harm to this historic landscape.	The potential landscape and visual effects of the onshore substation and National Grid infrastructure during the operational period are assessed in full in ***Appendix 29.3*** (APP-567) and ***Appendix 29.4*** (APP-568) and summarised in ***Table 29.10*** of the chapter***.*** The effects during the operation of the onshore substation and National Grid infrastructure are summarised in ***Table 29.10*** of the chapter at the first year of the operational phase and the residual effects with embedded mitigation at 15 years post construction, when the landscape mitigation described in ***section 29.3.3.1*** of the chapter is predicted to provide effective screening. Impact to HLC (including hedgerows and parish boundaries) will be minimised by returning field boundaries / areas / hedgerows to their preconstruction condition and character post-construction, as part of a sensitive programme of backfilling and reinstatement / landscaping (see ***section 24.3.3.1***). Certain hedgerows and field boundaries (e.g. parish boundaries) may require recording prior to the construction process and enhanced provisions made during backfilling and reinstatement. Further detail regarding hedgerow reinstatement is provided in the Outline Landscape and Ecological Management Strategy (***OLEMS)*** (APP-584), secured under the requirements of the ***draft DCO*** (APP-023) and submitted with the Application. The final Landscape Management Plan will be produced post-consent and approved by the Local Planning Authority. Impacts on the HLC are assessed as ***minor adverse*** following the application of this mitigation (***section 24.6.1.2.3***). An Outline Landscape Mitigation Plan has been submitted as part of the ***OLEMS*** which seeks, among other objectives, to reduce adverse impacts on the heritage assets at Friston. The ***OLEMS*** has been developed to take into consideration historic landscape and re-establishing historic field boundaries. In areas to the immediate north of Friston, the re-establishment of historic field boundaries, filling gaps

No.	Relevant Representation	Applicant's Comments
		in existing hedgerows and introducing field boundary trees has been proposed to provide layered screening, rather than large-scale woodland planting close to the village. This allows the 'setting' of Friston to be retained (rather than being contained by woodland). Reinstatement of hedges with substantial gaps and new field trees are proposed to north of Friston. These proposals focus on the re-establishment of historic field boundary hedgerows / tree lines; as well as tree blocks set back from farmhouses (e.g. Covert woods). The capacity of the landscape to accommodate the onshore infrastructure has been assessed in relation to the natural screening afforded by landform, woodlands, trees and hedgerows. The onshore substation and National Grid infrastructure are located within a landscape with extensive mature woodland of large scale, which provides some capacity to absorb and provide screening of the onshore infrastructure (***section 29.10.3*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077)). The Applicant will provide a clarification note as early as possible during the Examination regarding the photomontage visualisation principles, particularly in relation to the appearance of the planting in the photomontages, pre-construction growth, growth rates and species. However, the Applicant is of the view that the visual representations are robust and that there are no issues or actions required in relation to these.
004	SPS believes that a more creative and sympathetic design, and/or consideration of lowering the ground level, rather than adopting generic layouts would minimise some impacts. The detail provided within the Design and Access Statement and the Design Principle Statement is superficial.	It is noted by the Applicant that the design of the onshore substations and permanent outdoor equipment associated with National Grid infrastructure is indicative at this stage. The design for the onshore substation and National Grid infrastructure will set out to achieve a high standard of design whilst at the same time balancing the operational requirements of the facility with the character and appearance of the existing environment.

No.	Relevant Representation	Applicant's Comments
		Post-consent, the Applicant would design the onshore substation to the capacity of electricity required to be converted and to accommodate the state of technology at that time. The final onshore substation design would be developed post-consent. ***Section 3*** of the ***Outline Onshore Substation Design Principles Statement*** (APP-585) summarises the outline design principles that the Applicant will use as the foundation for developing the final Onshore Substation Design Principles post-consent, as part of the discharging of requirements of the ***draft DCO*** (APP-023). These include: • Continued engagement with Parish Councils, local residents and relevant authorities (Suffolk County Council and East Suffolk Council) on design and landscape proposals. • The landscape and building design proposals be subject to design review, in consultation with the relevant local authorities. • Consideration of 'Good Design' in line with the requirements of Overarching National Policy Statement for Energy (NPS-EN-1). • Appropriate building design and materials will be actively sought as part of the procurement process. ***Section 4*** of the ***Outline Onshore Substation Design Principles Statement*** (APP-585) states that the finished ground level in respect of the onshore substation is anticipated to be approximately 21.4m Above Ordnance Datum (AOD) where the onshore substation is located in the eastern area of Work No. 30, and approximately 19.8m AOD where the onshore substation is located in the western area of

No.	Relevant Representation	Applicant's Comments
		Work No. 30. The final finished ground level will be established during detailed design post consent. There are a number of factors that could influence the maximum finished ground level, including: • Surface water drainage design requirements, to ensure adequate surface water run-off from the onshore substation and a suitable connection to the existing surface water drainage system at Church Road; • Existing ground levels and practicable cut and fill requirements, to optimise the cut and fill balance of the onshore substation and minimise the need to import or export spoil material during the onshore substation construction; and • Groundwater constraints, to ensure appropriate management and control of groundwater interactions in the design of the onshore substation. The ***draft DCO*** (APP-023) states that no stage of the onshore substation works may commence until details of the layout, scale and external appearance of the onshore substation have been submitted to and approved by the relevant planning authority.
005	SPS also has strong reservations about the adequacy of the assessment of the impacts on designated heritage assets. Although the methodology for assessing impacts appears sound, the resulting narrative and conclusions drawn are both inaccurate and misleading and do not fully recognise the important contribution of setting to significance.	The potential for moderate adverse impacts on heritage assets such as Church of St Mary and Little Moor Farm is acknowledged within the assessment in ***Chapter 24 Archaeology and Cultural Heritage*** (APP-064). In order to produce an accurate assessment of the contribution of historical setting to significance, an independent contractor (Headland Archaeology) was commissioned. The subsequent conclusions and narrative provided in ***section 24.6.2.1*** are based on and supported by this independent study (***Appendix 24.7*** (APP-519)). The Applicant is therefore of the view that the

No.	Relevant Representation	Applicant's Comments
		narrative and conclusions regarding impacts on designated heritage assets are robust and credible.
006	Seascape and Visual Effects The visual impacts of the turbines on the special qualities of the AONB, and the Southwold and Aldeburgh Conservation Areas, will be significant, particularly with the cumulative impacts from EA1(N). Although the applicant has reduced the extent of the arrays they will continue to have a significant adverse impact on a nationally designated coastline and numerous coastal heritage assets. Consideration should be given to a height restriction to mitigate the impacts.	The Applicant notes that the visual impact of the Project's turbines will have a significant impact (in EIA terms) on the landscape quality and scenic quality elements of the AONB. However, ***Section 28.13 of Chapter 28 Seascape Landscape and Visual Impact Assessment*** (SLVIA) (APP-076) explains that no physical attributes that contribute to the special qualities of the AONB will be changed as a result of the construction and operation of the offshore infrastructure 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 fundamental character. The Applicant disagrees that the East Anglia ONE North turbines will have a significant contribution to the cumulative SLVIA impact. ***Section 28.6.3*** of ***Chapter 28 SLVIA*** summarises that significance of effect of the East Anglia ONE North turbines under construction, operation and decommissioning phases will be not significant (in EIA terms). ***Appendix 24.8*** (APP-521) undertakes a screening exercise designed to identify those onshore heritage assets (summarised under three headings: military coastal defence; maritime trades and activities; and seaside holiday resorts) where there is potential for heritage significance to be materially affected by change in their settings due to the operation of the offshore infrastructure proposed for the Projects. It was concluded the predicted visual change in setting due to the operation of the Projects would result in very limited harm to the significance of at least some designated heritage assets associated with seaside holiday resorts (which included consideration of Southwold and Aldeburgh Conservation Areas). In EIA terms this

No.	Relevant Representation	Applicant's Comments
		would equate to no significant adverse effects on onshore heritage assets from the presence of the offshore infrastructure for the Projects. It was also concluded that the predicted visual change in setting due to the operation of the Projects would cause no harm to the significance of assets related to military coastal defence and maritime trades. ***Section 28.3.2*** of ***Chapter 28 SLVIA*** describes the wind turbine sizes that are currently under consideration as the upper range of the Rochdale envelope are 250m wind turbines and 300m wind turbines. The realistic worst case layout assessed as the project design envelope for the SLVIA is the 60 x 300m wind turbine for reasons described in ***section 28.3.2.1***. The height of the wind turbines is dependent on multiple factors and requires balance between engineering constraints, environmental impacts and commercial viability.
007	Other Issues SPS also has concerns relating to the Cable Route, Archaeology, Traffic, Rights of Way, Lighting and the Cumulative Impacts including the uncoordinated approach to all offshore wind developments. These will be included within future representations.	Noted.
008	Finally SPS would raise the case for an environmental fund to compensate (in part) those that will be undoubtedly impacted upon and disrupted during the life of this project. The absence of any such recognition of the impact from such significant infrastructure provision within small rural communities is considered to be wholly unacceptable and inequitable to the cost being paid by those communities.	The Applicant has made a commitment to establish a community fund.

5.11 Suffolk Wildlife Trust (RR-086)

14. The Applicant notes that in an email dated 29th April 2020, Suffolk Wildlife Trust advised that they were stepping away from responding to casework and therefore would not be taking part in the Examination of the Project. The Applicant is appreciative of the input to the Project pre-application by Suffolk Wildlife Trust through the Evidence Plan Process.

Table 65 Applicant's Comments on Suffolk Wildlife Trust's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	Suffolk Wildlife Trust wishes to confine our representation to Onshore Ecology, with comments relating to offshore Marine Mammals being provided by The Wildlife Trusts. Notwithstanding the statements below, we wish to express our concerns at the current lack of a strategic approach to reducing onshore impacts of this and other future energy-related schemes such as through a sensitively designed off-shore ring main.	National Grid, in conjunction with offshore developers including ScottishPower Renewables, coordinated a study to look at an offshore ring main, and in 2015 it published its report 'Integrated Offshore Transmission Project (East) Final Report: Conclusions and Recommendations, August 2015'. It examined, in the context of the East Anglia, Hornsea and Dogger Bank Round 3 Zones, the potential for offsetting the need for new onshore infrastructure by establishing an integrated design approach to the connection of these generation zones. This approach would include the use of inter-connection between offshore zones (via offshore transmission assets) and optimising connections to the onshore transmission system. The findings outlined a number of issues associated with a potential offshore ring main and concluded that in relation to an offshore ring main, "*... the project team does not believe it would be economic and efficient to progress with the development of an integrated design philosophy or delivery of anticipatory assets at this time*". In summary, some of the issues that systemic solution(s) (including an offshore ring main) would need to consider include: • The regulatory framework – there is currently no regulatory framework in place which would support an offshore ring main and as far as the Applicant is aware, neither the Government nor Ofgem has published any form of detailed proposals in

No.	Relevant Representation	Applicant's Comments
		this regard. Any such review would require to address a wide range of regulatory, cost and budget obstacles. • Technical and deliverability (financial) considerations – so far as the Applicant is aware, there is no fully worked up design of an offshore ring main and it could take a number of years to develop and consent the infrastructure. Further, the funding of onshore and offshore electricity transmission is subject to a regulatory regime overseen by Ofgem. So far as onshore transmission is concerned the relevant transmission licensees, National Grid Electricity Transmission (the owner of the transmission assets in East Anglia), and National Grid Electricity System Operator (the system operator) are both subject to a duty under section 9(2)(a) of the Electricity Act 1989 "*to develop and maintain an efficient, co-ordinated and economical system of electricity transmission.*" The National Grid Report also addressed the efficiency of more integrated offshore solutions and concluded: "*market indicators show that development of offshore wind generation in the zones considered will not reach the required levels of capacity in near term timescales that would be required to make the implementation of an integrated design economic and efficient*." • Consenting – the National Grid Report notes that the offshore network would require to be consented. The timescales involved will vary depending on the extent to which the technical solutions still require to be developed, the proposed consenting strategy to be taken forward and the extent of environmental information required. There will also be the question of who develops and consents the ring main and covers the cost of such work.

No.	Relevant Representation	Applicant's Comments
		The timetable for the significant reform required to establish a regulatory and technical framework for an offshore ring main is likely to take a number of years. The Applicant is currently in the consenting process and must work within the constraints of the current regulatory framework in order to deliver the Project. The National Policy Statement (EN-3) for Renewable Energy Infrastructure states at paragraph 2.6.34 that: *"Applicants for consent for offshore wind farms will have to work within the regulatory regime for offshore transmission networks established by Ofgem. Under the regime offshore transmission will be a licensed activity regulated by Ofgem."* At present there is no appointed coordinator for offshore wind grid development nor any reference to coordinated offshore development in the National Policy Statement (EN-5) for Electricity Networks. An offshore ring main is not a reasonable alternative that could have been considered as an alternative to the transmission infrastructure proposed within the Application. The Applicant will continue working as part of the Suffolk Energy Group with other projects in the area and relevant local authorities with regard to a strategic approach to reducing onshore impacts of this and other proposed schemes.
002	We wish to make the following comments in respect of Onshore Ecology: In Chapter 22 (Onshore Ecology) 22.5.2.3 it is omitted that semi-natural broadleaved woodland is a UK Priority habitat under the classification Lowland Mixed Deciduous Woodland (Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006)). Applying the criteria in Table 22.8, this habitat is defined as 'medium importance' rather than being assigned to 'high' as would be the case for UK Priority habitats and this then has a bearing on impact significance. Consequently, we disagree that the loss of 1.1 hectares	The Applicant notes that semi-natural broadleaved woodland is a UK Priority habitat and therefore should be defined as high importance. The Applicant will provide a clarification note during Examination to address the mis-classification of semi-natural broadleaved woodland west of Aldeburgh Road. The Applicant will address the impacts upon semi-natural woodland to refine the proposed mitigation measures proposed within the final Ecological Management Plan and Landscape Management Plan as secured through the relevant requirements of the ***draft DCO*** (APP-023).

No.	Relevant Representation	Applicant's Comments
	of semi-natural broadleaf woodland is 'low' for long term duration, with only a temporary residual impact of 'minor adverse' after mitigation.	Where trees and woodland are to be removed, the Applicant has committed to a suite of mitigation measures as presented within ***Chapter 22 Onshore Ecology*** (APP-070), the chapter's associated appendices (APP-501 to APP-507) and the ***Outline Landscape and Ecological Management Strategy*** (***OLEMS***) (APP-584). The commitments in relation to woodland, scrub and trees include: • Adopting a reduced onshore cable route working width of 16.1m (down from a 32m wide onshore cable route width elsewhere) for the open cut trenching through the woodland west of Aldeburgh Road (as per ***Table 22.4*** of ***Chapter 22 Onshore Ecology*** (APP-070)); • Undertaking pre-construction surveys in line with British Standard (BS) 5837:2012 to accurately map the position of trees, record tree condition, tree value (including veteran status), tree root protection zones and the potential to support roosting bats to inform micro-siting of onshore infrastructure and opportunities for replacement planting; • Planting replacement woodland of an equivalent area to the woodland lost during construction of the Project following completion of the onshore works, taking into account that trees cannot be planted directly above buried cables; • At Aldeburgh Road, introducing replacement planting in the form of woodland edge habitat to allow future formation of primary, secondary and tertiary succession and to avoid creating a wind tunnel effect; and • Implementing a joint annual inspection of all replacement planting by the Applicant and the Local Planning Authority at the end of each growing season for each year of the aftercare

No.	Relevant Representation	Applicant's Comments
		period (10 years), with one to one replanting of failed plants to be undertaken for the first five years. Any additional mitigation in relation to woodland will be included within and secured through an updated ***OLEMS*** as well as the final Ecological Management Plan and/or final Landscape Management Plan, where appropriate. These management plans shall be prepared post-consent and submitted to the relevant Local Planning Authority for approval prior to the commencement of onshore works.
003	We note that the mitigation proposed includes the planting of replacement woodland to result in 'no net loss of trees' following the completion of the works, although planting of trees cannot be undertaken on the cable route itself. We determine this planting is not mitigation and instead forms compensation under the mitigation hierarchy. Given our comments in the above paragraph, we consider the current measures proposed do not sufficiently address the impacts upon semi-natural woodland and that further compensatory habitat is required.	The Applicant notes Suffolk Wildlife Trust's comment regarding mitigation of impacts on semi-natural broadleaved woodland. Mitigation measures have been discussed and agreed with the Onshore Ecology Expert Topic Group (of which Suffolk Wildlife Trust was a consultee), as part of the stakeholder consultation process, as detailed in ***Table 5.2*** of ***Chapter 5 EIA Methodology*** (APP-053)[73]. As detailed in ***Chapter 22 Onshore Ecology*** (APP-070), an Ecological Management Plan will be prepared and submitted to the relevant planning authority for approval in consultation with the relevant statutory nature conservation body, as secured under the requirements of the ***draft DCO*** (APP-023). The content of the final Ecological Management Plan must accord with that of the ***OLEMS*** (APP-584). The Applicant will address the impacts upon semi-natural woodland to refine the proposed mitigation measures proposed within the final Ecological Management Plan and Landscape Management Plan as secured through the relevant requirements of the ***draft DCO*** (APP-023). Where trees and woodland are to be removed, the Applicant has committed to a suite of mitigation measures as presented within

[73] Suffolk Wildlife Trust were in attendance at Onshore Ecology ETGs on 5th November 2018 and 25th January 2019 where mitigation measures were discussed and agreed.

No.	Relevant Representation	Applicant's Comments
		Chapter 22 Onshore Ecology of the ES (APP-070), the chapter's associated appendices (APP-501 to APP-507) and the ***OLEMS*** (APP-584). These are set out in the above response. Any additional mitigation in relation to woodland will be included within and secured through an updated ***OLEMS*** as well as the final Ecological Management Plan and/or final Landscape Management Plan, where appropriate. These management plans shall be prepared post-consent and submitted to the relevant Local Planning Authority for approval prior to the commencement of onshore works.
004	The loss of hedgerows during construction will result in gaps of at 16.1 meters for 'important' hedgerows and gaps of 32 metres elsewhere, with a worst-case scenario of more than 10km being lost overall. Whilst it is proposed that these hedgerows will be replanted as soon as possible post-construction, there will still be an ensuing period of at least 5-7 years until they re-establish, potentially longer depending on seasonal weather patterns and an inability to prevent deer browsing.	The Applicant notes Suffolk Wildlife Trust's concerns regarding the loss of hedgerow during construction and re-growth of these hedgerows following replanting. As detailed in ***Table 22.4*** and ***section 22.6.1.5.1*** of ***Chapter 22 Onshore Ecology*** (APP-070), the following mitigation measures detailed within the ***OLEMS*** (APP-584) may be employed: • Implementing a reduced working width of 16.1m where the onshore cable route crosses important hedgerows identified in Schedule 11 Part 2 of the ***draft DCO*** (APP-023) using an open cut methodology, minimising the length of hedgerow removed where possible; • Temporarily lost hedgerows will be reinstated post-construction; • Hedgerows will be reinstated as soon as possible in the construction programme; • Protection against grazing animals will be provided; • Improvement of hedgerows immediately adjacent to the removed sections where possible;

No.	Relevant Representation	Applicant's Comments
		• Pre-construction assessment of all trees (in hedges) to be removed by a suitably qualified arboriculturalist; and • Hedgerow root protection areas to be fenced off during construction, where relevant. In accordance with Requirement 21 of the ***draft DCO*** (APP-023), an Ecological Management Plan, which accords with the ***OLEMS*** (APP-584) and which reflects the mitigation measures set out in the ES is required to be submitted to the relevant planning authority for approval in consultation with the relevant statutory nature conservation body prior to commencement of onshore works. Works must then be implemented in accordance with the approved Ecological Management Plan. NB: The Applicant has identified a typographical error within ***Chapter 22 Onshore Ecology*** of the Environmental Statement (APP-070). Please note that references to 'Ecological Mitigation Plan' within the chapter and its associated appendices (APP-501 to APP-507) should read 'Ecological Management Plan'.
005	We are particularly concerned about the impacts upon foraging and commuting bats and that despite the implementation of the identified mitigation measures, it is stated that the temporary residual impact on this group cannot be reduced below "Moderate Adverse". It is also stated that all hedgerows where barbastelle were recorded or which had a 'high' level of bat usage will be considered 'Important' for bats, however it is not clear how the mitigation measures identified will be implemented in these locations, other than reducing the amount of hedgerow removal to 16.1m.	As detailed in ***section 22.6.1.9.2*** of ***Chapter 22 Onshore Ecology*** (APP-070), pre-construction surveys will be conducted to confirm the presence of bats prior to the commencement of construction. ***Appendix 22.6 Bat Survey Report*** details that the 2018 surveys indicate that transect area 3 and 4 recorded at least one barbastelle pass and that further emergence/re-entry surveys would be required to fully understand the bat species and size of populations within the features identified within these transects. Mitigation measures in relation to bats will follow best practice guidelines and are stated in ***Paragraph 72*** and ***Paragraph 73*** of ***Appendix 22.6 Bat Survey Report*** (APP-507), albeit targeted to address the findings of the pre-construction bat surveys. The

No.	Relevant Representation	Applicant's Comments
		mitigation measures presented within ***section 5.10.3*** within the ***OLEMS*** (APP-584) accord with those stated within ***Appendix 22.6 Bat Survey Report*** (APP-507), and include: • The provision of appropriate replacement habitat where the loss or damage of roosts cannot be avoided, achieved through the creation, restoration or enhancement of nearby habitat for bats; • The management and maintenance of replacement habitat to ensure the population will persist; and • Post-development monitoring of the population to assess the success of any mitigation and compensation measures.
006	Given the above we feel that the mitigation measures proposed do not provide a sufficient level of detail to ensure certainty of impacts on this group and we would expect to see a more comprehensive mitigation package. In combination with other development, this scheme represents a further severance of ecological connectivity within this part of Suffolk and we are not convinced that the current proposals offset this impact. Furthermore, whilst not obligated under NSIP, we would like to see an approach that embeds Biodiversity Net Gain, rather than simply 'no net loss'.	The Applicant believes that the mitigation measures proposed provide a sufficient level of detail to ensure certainty of impacts on bats. Planting, as proposed in ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077), will serve a purpose of dual functionality that aims to achieve betterment of habitats as well as the replacement of lost habitat. As recognised by Suffolk Wilde Trust in their Relevant Representation, Net Gain is not applicable to Nationally Significant Infrastructure Projects (NSIP) and marine developments. This is confirmed in the UK Governments' response to Department for Food Agriculture and Rural Developments' (DEFRA) consultation to Net Gain[74].

[74] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819823/net-gain-consult-sum-resp.pdf

5.12 The Wildlife Trusts (RR-091)

Table 66 Applicant's Comments on The Wildlife Trust's Relevant Representation

No.	Relevant Representation	Applicant's Comments
001	TWT has engaged in the East Anglia Two Marine Mammals Expert Topic Group and as such, this representation mainly focuses on marine mammals. Comments on onshore ecology have been provided separately by Suffolk Wildlife Trust	Noted, our responses to the Suffolk Wildlife Trust can be found in ***Table 65*** above.
002	TWT has concerns regarding the impact of underwater noise from construction on marine mammals. In particular, we are concerned about cumulative underwater noise disturbance impacts on the harbour porpoise North Sea Management Unit and in-combination disturbance within the Southern North Sea SAC.	With regards to the impact of underwater noise from construction, ***Chapter 11 Marine Mammals*** (APP-059) describes the approach towards the cumulative impact assessment of underwater noise (***section 11.7.2.1***). Cumulative impacts on harbour porpoise arising from piling activities are assessed as minor adverse (***section 11.7.4***) (not significant). This includes the unlikely event that all projects considered in the CIA (see ***section 11.7.4.1.2***) are all concurrently piling at exactly the same time as piling for the Project. Cumulative underwater noise impacts on harbour porpoise arising from all other noise sources including Unexploded Ordnance (UXO) clearance and seismic surveys (***section 11.7.5***) are assessed as minor adverse (not significant). ***Section 5.3.5.1*** of ***Habitat Regulations Assessment – Information to Support Appropriate Assessment*** (APP-043) considers the impacts to have the potential to adversely affect the integrity of the site in relation to the Southern North Sea Special Area of Conservation (SNS SAC) conservation objectives which include: • Underwater noise associated with the clearance of UXO; • Underwater noise during piling; • Underwater noise during non-piling construction activities, for example, seabed preparation, rock dumping and cable installation;
003	Underwater noise management in the Southern North Sea SAC: Although we welcome that progress has been made on the assessment of underwater noise disturbance within the Southern North Sea SAC, TWT still has concerns regarding the proposed SNCB advice. The science underpinning the advice is weak and we believe the proposed approach will be difficult to deliver.	
004	We also disagree with SNCB advice that the assessment of impacts on harbour porpoise populations in the Southern North Sea SAC is against the Management Unit. The European Commission has made clear in guidance that the expression 'integrity of the site' should be on the specific site. Therefore, to understand the impact on the integrity of the Southern North Sea SAC, a site-based assessment based on an estimated population number is required rather than an assessment on the Management Unit.	

No.	Relevant Representation	Applicant's Comments
		• Underwater noise and disturbance from vessels; • Barrier effects as a result of underwater noise associated with activities above; • Vessel interaction (collision risk); • Changes to prey resource; and • Changes to water quality The assessment on site integrity of the SNS SAC concludes no potential adverse effect on the integrity of the SNS SAC in relation to the conservation objectives for harbour porpoise for all of the above impacts. As agreed in the Marine Mammals Expert Topic Group (ETG), the Applicant has followed guidance provided by Natural England (the Statutory Nature Conservation Body) for assessing the significance of noise disturbance to a site. This is discussed in ***section 3.1.1*** and ***3.1.3*** of the ***In Principle Site Integrity Plan (SIP) for the Southern North Sea Special Area of Conservation*** (APP-594).
005	Inclusion of fishing in all cumulative/in-combination assessments: Fishing has not been included in any cumulative/in-combination assessments within any chapters of the application. As a principle, fishing should not be considered in any assessments as part of the baseline. It is a licensable ongoing activity that has the potential to have an adverse impact on the marine environment. This is supported in the leading case C-127/02 Waddenzee [2004] ECR I-7405, the CJEU held at para. 6. In addition, Defra policy requires existing and potential fishing operations to be managed in line with Article 6 of the Habitats Directive. This approach further supports that fishing is	***Section 5.3.5.5*** of ***Habitat Regulations Assessment (HRA) – Information to Support Appropriate Assessment*** describes the approach taken with respect to the inclusion of commercial fishing activity with in-combination effects. The potential for in-combination effects associated with commercial fisheries within the SNS SAC site was considered in the recent draft Habitat Regulations Assessment (HRA) for the Review of Consents (RoC) (which was consulted upon in November 2018; BEIS 2018)[75]. With regard to direct effects on harbour porpoise, the draft RoC HRA (BEIS 2018) also states that:

[75] BEIS (2018) Review of Consented Offshore Wind Farms in the Southern North Sea Harbour Porpoise SCI. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/753026/RoC_SNS_cSAC_HRA_5.0.pdf

No.	Relevant Representation	Applicant's Comments
	considered a plan or a project and therefore must be included in the in-combination assessment in line with Article 6(3) of the Habitats Directive.	*"19.213 Commercial fishing has occurred within the SCI for many years and has had, and will continue to have, direct and indirect impacts on harbour porpoise, their habitat and prey within the SCI. As the conservation status of harbour porpoise in UK waters and the SCI is considered favourable (JNCC 2016, 2017a) current and historical levels of fishing in the SCI are not considered to have affected the conservation status of the species.* *19.214 There are no known plans to suggest that the level of fishing within the SCI will significantly increase over the period the consented wind farms are planned to be constructed, such that, it is predicted that the current level of impacts from fishing on harbour porpoise within the SCI will not increase."* Therefore, the potential effects from commercial fishing (including by-catch and loss of prey species) and from the underwater noise associated with other, non-offshore wind farm industries (including oil and gas, aggregates and commercial fisheries) are considered to be a part of the environmental baseline for marine mammals of the North Sea, including for harbour porpoise, and are screened out of further assessment for the Project. The same approach has been taken for other offshore windfarm projects which have been consented or are currently under consideration.
006	Following the commencement of judicial review proceedings by TWT against Dogger Bank Offshore Wind farms, TWT was given assurances that fishing would be included in future offshore wind farm assessments. We have raised this issue with the Planning Inspectorate over several planning applications (Hornsea 3, Norfolk Vanguard, Norfolk Boreas) and have also raised the issue with Defra and BEIS. We make this case for all MPAs assessed in this application.	
007	Southern North Sea SAC TWT agrees that mitigation is required to ensure no adverse effect on the Southern North Sea SAC from underwater noise impacts. We are pleased that the applicant has committed to the production of a Site Integrity Plan (SIP) and Marine Mammal Mitigation Protocol (MMMP) for piling and UXO clearance.	Noted.

No.	Relevant Representation	Applicant's Comments
008	There are a number of outstanding issues which means that TWT cannot conclude for the East Anglia One North application that there will be no adverse effect beyond reasonable scientific doubt on the Southern North Sea SAC. Firstly, the SIP lacks detail and therefore in its current form it is not adequate. More detail should be provided on the effectiveness of the proposed mitigation as outlined in the SIP. This should include referenced examples of how the implementation of mitigation will reduce underwater noise disturbance impacts within the Southern North Sea SAC. Noise modelling should also be undertaken to demonstrate the degree of noise reduction which could be achieved through mitigation.	Noted, this will be discussed during the finalisation of the SIP which will be based on the ***In-Principle SIP*** (APP-594), prior to the commencement of construction. Potential mitigation and management measures (***section 6*** of the ***In-Principle SIP***) are spatial and temporal and may include: • Alternate foundation technologies such as gravity base foundations; • Noise mitigation systems including various types of bubble curtain, hydro-sound dampers, screens or tubes; and • Scheduling of pile driving and UXO clearance. Refinement of the piling programme could potentially allow a reduction in the total in-combination area of disturbance from multiple projects, if required. Prior to the potential implementation of project mitigation or management measures, an assessment of the feasibility of each measure (alone or in conjunction with other measures) will be required to ensure the approach is able to contribute to a reduction in disturbance to harbour porpoise within the SNS SAC. The assessment is expected to include a degree of likely confidence in each measure. The Applicant will work with the MMO and other statutory consultees to ensure that any approach to such assessment, is done in timely manner, and using the most robust approach possible. It should be noted that the following factors need to be considered and taken into account in the final SIP: • The SNS SAC management measures are currently unavailable;

No.	Relevant Representation	Applicant's Comments
		• The Project design parameters have not yet been finalised, and the ***Information to Support the Appropriate Assessment Report*** was based on the predicted worst-case scenario; • The final design and programme of other plans and projects has not yet been finalised, and therefore the actual in-combination scenario is currently unknown; and • Potential strategic management measures such as scheduling of pile driving would need to be carefully managed to achieve a coordinated approach with other developers. The adopted Project measures would be agreed and secured in the period between consent and the commencement of piling, following an updated assessment of the potential impacts from pile driving and an assessment of their efficacy.
009	Secondly, we cannot conclude no adverse effect on the Southern North Sea SAC due to the lack of regulatory mechanism to manage in-combination underwater noise impacts. Defra and the Southern North Sea Regulators Working Group are taking positive steps to develop effective management for in-combination underwater noise impacts and TWT will continue to work closely with all stakeholders on this. However, as management mechanisms are currently not in place, we suggest the Planning Inspectorate and the Secretary of State considers what controls need to be put in place to ensure no adverse effect on the Southern North Sea SAC at this current time.	Noted. Industry wide, each project is required to submit a SIP for approval by the Marine Management Organisation (MMO) prior to piling in accordance with the conditions of its Marine Licence. This will be once construction and piling programmes are known and can therefore be considered by the MMO and form part of its overall determination. This matter was discussed during a Statement of Common Ground (SoCG) meeting with The Wildlife Trust (TWT) on the 15th April 2020 and it is understood by the Applicant that TWT's comments are related to industry-wide management and are not project-specific.
010	Development Consent Order (DCO) UXO Clearance We welcome that the applicant has included conditions in relation to UXO clearance in the draft DCO and has committed to a UXO MMMP and SIP. We would like to raise with the Planning Inspectorate that	Noted with respect to the inclusion of provisions in the DCO for UXO clearance.

No.	Relevant Representation	Applicant's Comments
	there is inconsistency on the inclusion of UXO clearance in draft DCOs alongside associated mitigation documents. Due to the cumulative impact of underwater noise impacts from offshore wind farm development, UXO clearance and associated mitigation must be secured across all DCOs to ensure site integrity of the Southern North Sea SAC.	
011	Monitoring Southern North Sea SAC There is a great deal of uncertainty regarding the impacts of underwater noise on harbour porpoise in UK waters; very few studies have been undertaken. Generally, current monitoring included in Development Consent Orders for offshore wind farms is not fit for purpose to provide adequate information to confirm the effectiveness of mitigation methods. In addition, the monitoring included in the In-Principle Monitoring Plan is not fit for purpose for harbour porpoise or the Southern North Sea SAC.	The ***In-Principle SIP*** (APP-594) and ***Draft Marine Mammal Mitigation Protocol*** (MMMP) (APP-591) provide for monitoring if required, this is referenced within the ***Offshore In Principle Monitoring Plan*** in ***section 1.6.6.2*** (APP-590). The final MMMP and SIP will be submitted to the MMO for approval prior to UXO and piling activities being carried out. This is secured by: • Condition 16 of the generation DML and Condition 12 of the transmission DML in respect of UXO clearance; and • Conditions 17(1)(f) and (2) of the generation DML and Condition 13(1)(f) and (2) of the transmission DML in respect of piling. The final MMMP and SIP will set out the most appropriate mitigation measures at that time which will be considered alongside other relevant technologies or methodologies, based on technical feasibility and commercial availability considerations and assessments, alongside cost benefit analysis, during the final design of the Project. This would be informed by post-consent site investigation and technology developments.
012	To provide more confidence, TWT recommends that all offshore wind farm developments should contribute funding and participate in the delivery of strategic monitoring. Developers all agree that a strategic	Noted. This matter was discussed during a Statement of Common Ground (SoCG) meeting with The Wildlife Trust (TWT) on the 15th April 2020 and it is understood by the Applicant that TWTs comments are related to industry-wide management and are not project-specific.

No.	Relevant Representation	Applicant's Comments
	approach to monitoring is the most effective approach but consistently highlight that a mechanism for delivery is lacking.	
013	Post-consent engagement TWT values the relationship developed with applicants during the pre-application stage. However, due to the uncertainties regarding marine mammal mitigation and monitoring at examination, we wish to be named on any associated documents for consultation post-consent including MMMPs, Marine Mammal Monitoring Plans and EPS licences. We welcome being named in the SIP but request to be consulted rather than just be provided information throughout the development of the document post-consent. SPR leads by example on post-consent engagement and has confirmed that they are happy to name TWT as consultee in the above documents. We will be working with the applicant through examination on how this is achieved, and we are happy to provide an update as the application progresses.	Noted. As agreed within the SoCG process, the Applicant will consult with TWT in respect of the SIPs and MMMPs for UXO clearance and Piling.
014	TWT welcomes that significant progress has taken place over the past few months on underwater noise management in the Southern North Sea SAC. However, as a regulatory mechanism is still not in place to manage the in-combination effects of underwater noise disturbance impacts, we cannot agree that there will be no adverse effect on the Southern North Sea SAC.	As above (regarding the management of in-combination underwater noise impacts), industry wide, each project is required to submit a SIP for approval by the Marine Management Organisation (MMO) prior to piling in accordance with the conditions of its Marine Licence. This will be once construction and piling programmes are known and can therefore be considered by the MMO and form part of its overall determination. This matter was discussed during a Statement of Common Ground (SoCG) meeting with The Wildlife Trust (TWT) on the 15th April 2020 and it is understood by the Applicant that TWT's comments are related to industry-wide management and are not project-specific.

No.	Relevant Representation	Applicant's Comments
015	We appreciate that the development of the regulatory mechanism is outside the control of this examination. However, we urge the Planning Inspectorate and Secretary of State to consider the risk associated with the lack of current management in the final decision and what extra controls can be put in place to ensure no adverse effect on the Southern North Sea SAC.	Noted.

5.13 Whale and Dolphin Conservation (RR-090)

15. The Applicant notes that in an email dated 15th April 2020, WDC advised that they were stepping away from responding to casework and therefore would not be taking part in the Examination of the Project. The Applicant is appreciative of the input to the Project pre-application by WDC through the Evidence Plan Process.

Table 67 Applicant's Comments on Whale and Dolphin Conservation's Relevant Representation

No	Relevant Representation	Applicant's Comments
001	As an SAC the Southern North Sea is a strictly protected site, designated under the EC Habitats Directive, with a specific Conservation Objective of "To avoid deterioration of the habitats of the harbour porpoise or significant disturbance to the harbour porpoise, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to maintaining Favourable Conservation Status for the UK harbour porpoise." (JNCC, 2017).	Whale and Dolphin Conservation's concerns regarding harbour porpoise habitat and potential harbour porpoise disturbance is noted by the Applicant. The Applicant has considered potential impacts to harbour porpoise in ***Chapter 11 Marine Mammals*** (APP-059) and to site integrity of the Southern North Sea (SNS) Special Area of Conservation (SAC) in ***section 5.3*** of ***Information to Support Appropriate Assessment*** (APP-043). The potential impacts during construction assessed for marine mammals in ***Chapter 11 Marine Mammals*** (***section 11.6***) are: • Physical and auditory injury resulting from the underwater noise associated with clearance of Unexploded Ordnance (UXO); • Behavioural impacts resulting from the underwater noise associated with clearance of UXO; • Physical and auditory injury resulting from underwater noise during piling; • Behavioural impacts resulting from underwater noise during piling; • Behavioural impacts resulting from underwater noise during other construction activities;
002	WDC is particularly concerned about the potential for cetaceans to be disturbed and displaced, including by the noise introduced into their environment. Noise will be produced throughout the life of the development, including construction, operation and decommissioning, and from associated vessel traffic. East Anglia TWO is likely to impact cetaceans, and the harbour porpoise population supported by the SNS SAC in ways ranging from collisions to habitat displacement due to the effects of noise and disturbance.	
003	Our concerns are particularly related to noise especially during the construction phase as this is the stage where there is the greatest potential to negatively impact cetaceans.	
004	Noise pollution has the potential to displace animals and populations, interfere with normal behaviour and, at very high intensities, be	

No	Relevant Representation	Applicant's Comments
	physically damaging. All cetaceans are offered 'strict protection' under the Habitats Directive.	• Underwater noise and disturbance from construction vessels; • Barrier effects as a result of underwater noise; • Vessel interaction (collision risk); and • Changes to prey resource. Cumulative impacts with other projects are considered in section ***11.7*** and underwater noise from piling, seismic operations and UXO clearance is covered in section ***11.7.2.1.*** The assessed impacts (project alone and cumulative) range from negligible to minor adverse significance with the application of mitigation via a Marine Mammal Mitigation Protocol and the Site Integrity Plan for piling and UXO clearance activities. The **d*raft Marine Mammal Mitigation Protocol*** (MMMP) (APP-591) and ***In-Principle Site Integrity Plan (SIP) for the Southern North Sea Special Area of Conservation*** (APP-594) have been submitted with the Development Consent Order (DCO) application. ***Section 5.3.5.1*** of ***Information to Support Appropriate Assessment*** considers whether the following impacts have the potential to adversely affect the integrity of the site in relation to the SNS SAC conservation objectives which include: • Underwater noise associated with the clearance of UXO; • Underwater noise during piling; • Underwater noise during non-piling construction activities, for example, seabed preparation, rock dumping and cable installation; • Underwater noise and disturbance from vessels; • Barrier effects as a result of underwater noise associated with activities above;
005	Research has shown that pile driving during construction causes behavioural changes in harbour porpoises which leave the area during construction and in majority instances did not later return to their usual numbers. The longest running study into the effects of windfarms on harbour porpoises shows that ten years later, the population has only recovered to 29% of the baseline level. Even where areas have been recolonised, it is not clear if these are the same animals returning or new animals moving into the area, or if the animals are using the area in the same way.	

No	Relevant Representation	Applicant's Comments
		• Vessel interaction (collision risk); • Changes to prey resource; and • Changes to water quality The assessment on site integrity of the SNS SAC concludes no potential adverse effect on the integrity of the SNS SAC in relation to the conservation objectives for harbour porpoise for all of the above impacts.
006	Harbour porpoise feed almost continuously to meet energy needs and are therefore highly sensitive to disturbance. Loud noises, such as pile driving, can cause them to be displaced from potential important feeding grounds. Additionally harbour porpoise can lose 4% of their body weight in just 24 hours from starvation. Given the importance of the East Anglia TWO area and the SNS SAC for harbour porpoise, most likely as prime foraging areas, displacement from the area could be very significant.	Baseline information regarding the harbour porpoise within the Project offshore development area is provided in ***section 11.5*** of ***Chapter 11 Marine Mammals*** (APP-059) with respect to their distribution, diet, abundance and density estimates and reference population for assessment. Potential harbour porpoise displacement from important habitat areas as a result of underwater noise has been considered by the Applicant. This is covered in ***section 11.6.1.4***. Residual impacts with mitigation applied (MMMP) are assessed as minor adverse significance. Indirect impacts on prey species due to underwater noise is considered in ***section 11.6.1.9*** and is assessed as negligible to minor adverse significance
007	The combined effects of these developments with other industries operating in the marine environment, such as shipping and oil and gas exploration, are also largely unknown. Yet it is important that cumulative and in-combination impacts be adequately considered and our understanding developed.	***Sections 11.7.1***, ***11.7.2*** *and* ***11.7.3*** of ***Chapter 11 Marine Mammals*** (APP-059) describes the Applicant's approach to cumulative impacts and the projects and activities which have been screened in to the assessment. This includes other offshore windfarm developments (including operation and maintenance activities), unexploded ordnance (UXO) clearance, and seismic surveys for underwater noise. All cumulative impacts are assessed as minor adverse significance (***sections 11.7.4*** and ***11.7.5***).

No	Relevant Representation	Applicant's Comments
008	WDC recommend for Norfolk Boreas that: - Foundations requiring piling are not used - Further assessments are made on alternative foundations to fully understand the potential impacts on marine mammals, and prey species; - To apply effective noise-reducing measures where piles of any sort are driven	It is assumed by the Applicant that Whale and Dolphin Conservation (WDC) has made a typographic error and that 'Norfolk Boreas' should instead say 'East Anglia TWO'. The Applicant is considering a range of foundation options which are described in ***section 11.3.2*** of ***Chapter 11 Marine Mammals*** (APP-059). Foundation types would be selected following detailed design, based on suitability of the ground conditions, water depths and wind turbine models. There may be only one type used, or a combination of foundation types may be used across the windfarm site (***section 6.5.4*** of ***Chapter 6 Project Description*** (APP-054)). Pile-less foundations may not be feasible for the Project from both a commercial and practical standpoint. ***Table 11.2*** summarises the parameters used in the worst case assessments of all potential foundations. A worst case has been assessed in line with the Rochdale Envelope approach to assessment in order to understand the potential impacts on marine mammals and prey species. With regards to noise-reducing measures during piling, the Applicant has committed to implementing a mitigation protocol for marine mammals which will set out measures to mitigate impacts assessed in the EIA to reduce the likelihood of injury to marine mammals as a result of underwater noise. This is secured through the d***raft DCO*** (APP-023). A ***draft Marine Mammal Mitigation Protocol*** (MMMP) (APP-591) has been submitted with the application. The final MMMP for piling will ensure there are embedded mitigation measures, as well as any additional mitigation, if required, to prevent the risk of any physical or permanent auditory injury to marine mammals. This will be developed in the pre-construction period, when there is more detailed information on the Project design (and environmental conditions) and hence, it will incorporate the most

No	Relevant Representation	Applicant's Comments
		appropriate mitigation measures based upon best available information and proven methodologies at that time. Additionally, the ***In-Principle SIP for the Southern North Sea Special Area of Conservation*** (APP-594) provides potential mitigation measures for the Project to ensure the avoidance of Adverse Effect on Integrity (AEOI) of the designated features of the SNS SAC. Both of these documents (MMMP and SIP) are secured under condition 17 of the generation DML and condition 13 of the transmission DML in the ***draft DCO*** (APP-023) and will be submitted for approval by the Marine Management Organisation (MMO).