

# East Anglia ONE North and East Anglia TWO Offshore Windfarms

# **Applicant's Comments on Relevant Representations**

### **Appendix 1 Marine Policy Clarification Note**

Applicant: East Anglia TWO Limited Document Reference: ExA.RRA1.D0.V1

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Applicable to East Anglia ONE North and East Anglia TWO





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#### Glossary of Acronyms

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ALARP	As Low as Reasonably Possible
AONB	Area of Outstanding Natural Beauty
CMS	Construction Method Statement
CO2	Carbon Dioxide
CFWG	Commercial Fisheries Working Group
DCO	Development Consent Order
DML	Deemed Marine Licence
EIA	Environmental Impact Assessment
ES	Environmental Statement
ETG	Expert Topic Group
HRA	Habitat Regulation Assesment
LCT	Landscape Character Type
MCZ	Marine Conservation Zone
MHWS	Mean High Water Springs
MMO	Marine Management Organisation
MoD	Ministry of Defence
MPA	Marine Protected Area
NCA	National Character Area
NE	Natrual England
PINS	Planning Inspectorate
ProW	Public Right of Way
SCT	Seascape Character Type
SEA	Strategic Environmental Assesment
SMP	Shoreline Management Plan
SoCG	Statement of Common Ground
SPR	Scottish Power Renewables





#### 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.

#### **Appendix 1 Marine Policy Clarification Note**





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 <i>in situ</i> 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.

#### **Appendix 1 Marine Policy Clarification Note**





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 Marine Management Organisation (MMO) provided their relevant representation (Section 56 response) on the proposed East Anglia ONE North and East Anglia TWO windfarm projects (the Projects) to the Applicant on 24<sup>th</sup> January 2020.
- 2. The MMO recommended that "the Applicant demonstrates in document 8.2 that all East Marine Plan policies, which have been scoped in via Explore Marine Plans (EMP), have been considered" for both projects.
- 3. The Applicant has used the MMO's EMP feature to identify Marine Plans that are relevant to the Projects. An assessment against these policies is provided in **section 2** below.
- 4. This note has collated and drawn upon information which was presented in various documents submitted as part of the Development Consent Order (DCO) application in October 2019. There is no new information contained within this note.
- 5. This document is applicable to both the East Anglia ONE North and East Anglia TWO applications, and therefore is endorsed with the yellow and blue icon used to identify materially identical documentation in accordance with the Examining Authority's (ExA) procedural decisions on document management of 23<sup>rd</sup> December 2019. Whilst for completeness of the record this document has been submitted to both Examinations, if it is read for one project submission there is no need to read it again.



## 2 East Inshore and East Offshore Marine Plan Assessment

6. The Applicant has provided an assessment against the East Inshore and East Offshore Marine Plans in *Table 2.1* below.





Activity	Policy Ref	Policy Description	Assessment
Aquaculture	AQ1	Within sustainable aquaculture development sites (identified through research), proposals should demonstrate in order of preference:	This is not applicable to the Project as there are no known or proposed aquaculture sites that would be affected by the proposals.
		a) that they will avoid adverse impacts on future aquaculture development by altering the sea bed or water column in ways which would cause adverse impacts to aquaculture productivity or potential;	
		b) how, if there are adverse impacts on aquaculture development, they can be minimised;	
		c) how, if the adverse impacts cannot be minimised they will be mitigated; and	
		d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts.	
Biodiversity	BIO1		As per MMO relevant representation – MMO note this has already been considered in the ES.
	BIO2		As per MMO relevant representation – MMO note this has already been considered in the ES.
Cabling	CAB1	Preference should be given to proposals for cable installation where the method of installation is burial. Where burial is not achievable, decisions should take account of protection measures for the cable that may be proposed by the applicant.	Cables will be buried wherever possible. It is anticipated that scour protection would not be required for cable laid in soft sediment areas.
		по предости	The preferred methodology and depth of burial for the offshore cables would be decided post consent following the preconstruction site investigation and a risk assessment and a





Policy Ref	Policy Description	Assessment
		lifetime maintenance assessment is completed (see <b>section 6.5.11</b> of <b>Chapter 6 Project Description</b> (APP-052). Cable burial depths will be detailed in the <b>Cable Laying Plan</b> which will be produced post-consent under the conditions of the deemed marine licences contained in Part 2 of Schedules 13 and 14 of the <b>draft DCO</b> (APP-023).  Post-consent studies will determine the extent to which scour management will be required. A <b>Scour Protection Management and Cable Protection Statement</b> will be
		provided as part of the <b>Construction Method Statement</b> ( <b>CMS</b> ) and implemented as agreed with the regulator under the conditions of the deemed marine licences contained in Part 2 of Schedules 13 and 14 of the <b>draft DCO</b> .
CC1	Proposals should take account of:  • how they may be impacted upon by, and respond to, climate change over their lifetime; and	Potential impacts from climate change on the Project have been taken into account during the assessments, and the Project has been designed to be resilient to the effects of climate change such as coastal change and flooding.
	how they may impact upon any climate change adaptation measures elsewhere during their lifetime.  Where detrimental impacts on climate change adaptation measures are identified, evidence should be provided as to how the proposal will reduce such impacts.	The proposed landfall location is within 'Flood Zone 1' as described in <i>Chapter 20 Appendix 20.1 Flood Risk Assessment</i> (APP-496). Zone 1 is at low risk of flooding from fluvial or tidal sources. The onshore substation and National Grid infrastructure are also located within Flood Zone 1. They are sufficiently inland that they are not at risk of flooding from the sea. The Applicant has committed to setting back the landfall transition bays to the potential 100-year erosion prediction line following an engineering feasibility study
	Ref	CC1 Proposals should take account of:  • how they may be impacted upon by, and respond to, climate change over their lifetime; and • how they may impact upon any climate change adaptation measures elsewhere during their lifetime.  Where detrimental impacts on climate change adaptation measures are identified, evidence should be provided as to





Activity	Policy Ref	Policy Description	Assessment
			Selection (APP-447)). 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 Applicants 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.
			With regards to detrimental impacts on climate change adaptation measures elsewhere, no implications on Shoreline Management Plans (SMPs), and any relevant Marine Plans and capital programmes for maintaining flood and coastal defences have been identified in the ES.
	CC2	Proposals for development should minimise emissions of greenhouse gases as far as is appropriate. Mitigation measures will also be encouraged where emissions remain following minimising steps. Consideration should also be given to emissions from other activities or users affected by the proposal.	<ul> <li>Section 2.3.2 of Chapter 2 Need for the Project (APP-050) details how this project aims to mitigate against the effects of climate change. Specifically:         <ul> <li>A technology with potential to make significant and rapid contributions to national renewable energy targets; and</li> <li>Very low lifetime CO<sub>2</sub> emissions per unit of electricity generated.</li> </ul> </li> <li>During operation, the Projects will contribute to meeting global, European and national targets on carbon dioxide (CO2) reduction in line with the Climate Change Act 2008 (2050 Target Amendment) Order 2019 which means that the minimum percentage by which the net UK carbon account for</li> </ul>





Activity	Policy Ref	Policy Description	Assessment
			the year 2050 must be lower than the 1990 baseline is increased from 80% to 100%.
			In March 2019, the UK offshore wind sector committed to a sector deal which aims to increase offshore wind capacity to 30GW by 2030 (section 5.1 of the Development Consent and Planning Statement (APP-579)). The 30GW by 2030 target was superceded in December 2019 as the UK Government announced an enhancement of this target to 40GW by 2030. The proposed East Anglia ONE North and East Anglia TWO projects would meet approximately 2% and 2.251% respectively of the UK's new offshore wind cumulative deployment target for 2030.
Carbon capture and storage	CCS2	Carbon Capture and Storage proposals should demonstrate that consideration has been given to the re-use of existing oil and gas infrastructure rather than the installation of new infrastructure (either in depleted fields or in active fields via enhanced hydrocarbon recovery).	Not applicable.
Economic	EC1	Proposals that provide economic productivity benefits which are additional to Gross Value Added currently generated by existing activities should be supported.	With regard to economic productivity benefits, there are several impacts assessed as being majorly or moderately beneficial as a result of the Project. These are summarised in section 30.10 of Chapter 30 Tourism, Recreation and Socio-Economics (APP-570) as follows:  • The onshore construction impact for local businesses and people working for them due to increase use of local accommodation. This also considers the likelihood of rooms being unavailable for tourists visiting the area.

<sup>&</sup>lt;sup>1</sup> Based on approximate generating capacities of 800MW and 900MW for East Anglia ONE North and East Anglia TWO respectively





Activity	Policy Ref	Policy Description	Assessment
			<ul> <li>Local and regional labour market opportunities supported by existing SPR skills enhancements and long-term employment.</li> </ul>
			These positive impacts remain as beneficial when considered cumulatively with other projects.
	EC2		As per MMO relevant representation – MMO note this has already been considered in the ES
	EC3		As per MMO relevant representation – MMO note this has already been considered in the ES
Ecosystem	ECO1		As per MMO relevant representation – MMO note this has already been considered in the ES
	ECO2		As per MMO relevant representation – MMO note this has already been considered in the ES
Fisheries	FISH1		As per MMO relevant representation – MMO note this has already been considered in the ES
	FISH 2		As per MMO relevant representation – MMO note this has already been considered in the ES
Governance	GOV1	Appropriate provision should be made for infrastructure on land which supports activities in the marine area and vice versa. Many economic and social benefits of activities only accrue when brought on land. Offshore renewable energy requires cabling and collector or convertor stations to enable it to be fed into the national grid onshore.	The onshore infrastructure includes landfall, onshore cables and a substation which is necessary for providing energy to the National Grid.





Activity	Policy Ref	Policy Description	Assessment
	GOV2	Opportunities for co-existence should be maximised wherever possible.	The East Anglia ONE North windfarm site boundary has been selected on the basis of the ZAP process (section 4.7.2 of Chapter 4 Site Selection and Assessment of Alternatives) and further consideration of development potential carried out by the Applicant.
			The shape of the East Anglia ONE North windfarm site boundary was driven by surrounding constraints (and opportunities for co-existence). The boundary is delineated by the Outer Thames Estuary SPA to the north, proximity to East Anglia ONE at approximately 1km to the south, vessel transit routes to the east (deep water routes) and its central location towards the southern end of the former East Anglia zone which boundaries in all directions. (and which was beyond 12 nautical miles from the coast as per the seascape constraint as set out in the Offshore Energy Strategic Environmental Assessment (OESEA)). This boundary was presented and consulted upon in the Preliminary Environmental Information Report (PEIR) (section 4.7.3).
			The shape of the East Anglia TWO windfarm site boundary was informed by surrounding constraints. The boundary was delineated by the Outer Thames Estuary SPA to the north, proximity to East Anglia ONE (11km east), shipping and navigation activity, as well as the proximity to Galloper Windfarm to the south (approximately 6.5km) and the former East Anglia Zone boundary to the west. This boundary was also presented and consulted upon in the PEIR (section 4.7.3).





Activity	Policy Ref	Policy Description	Assessment
			Beyond the early project planning phases, the Applicant has sought to maximise opportunities for co-existence in particularly relevant areas such as commercial fishing, shipping and navigation and infrastructure and other users.
			Commercial Fishing
			With regards to commercial fishing activity, a Commercial Fisheries Working Group (CFWG) has been created to act as a forum in which to discuss opportunities for co-existence.
			The CFWG has a representative from each local port which could potentially be impacted by the Projects (Orford, Aldeburgh, Harwich, Felixstowe, Lowestoft and Southwold). The CFWG aims to identify and develop coexistence strategies during a project's lifecycle. A Co-existence and Fisheries Liaison Plan will be produced for the Projects, post-consent.
			Commitments in respect of cable monitoring and protection, the appointment of a fisheries liaison officer and the development of a coexistence plan are secured under the conditions of the deemed marine licences contained in Part 2 of Schedules 13 and 14 of the <i>draft DCO</i> and are described further in <i>Offshore Schedule of Mitigation</i> (APP-574).
			Shipping and Navigation
			Commitments to co-exist with shipping and vessel traffic are detailed in <i>Offshore Schedule of Mitigation</i> and include:
			Wind turbines will have at least 22m air clearance above Mean High Water springs (MHWS) as per MGN





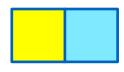
Activity	Policy Ref	Policy Description	Assessment
			543 and RYA requirements (DCO Schedule 1, Part 3, Requirement 2(1)(e);
			<ul> <li>The Project's windfarm site will meet the applicable requirements of MGN543 and its annexes, including requirements to facilitate Search and Rescue access (Condition 18(5) of the generation DML);</li> </ul>
			<ul> <li>An Emergency Response Cooperation Plan (ERCoP) will be produced to minimise potential impacts on emergency response resources; and</li> </ul>
			<ul> <li>Cables will be buried (or alternative methods of protection where burial is not feasible), including maintenance and monitoring of the protection during the operational phase (Condition 17 of the generation DML, CMS, specifically the Cable Laying Plan and Condition 13 of the transmission DML, CMS, specifically the CLP).</li> </ul>
			Infrastructure and other users
			With regards to infrastructure and other users, careful site selection has ensured that interactions with other users will generally be avoided and therefore co-existence will be facilitated (e.g. outside of MoD exercise areas and aggregate extraction areas). Where interaction is unavoidable such as cable crossings, commercial agreements are to be put in place ahead of construction to ensure that these interactions are safe and prevent damage to other infrastructure.
	GOV3	Proposals should demonstrate in order of preference:	a) The siting, design and refinement of the Projects has followed an iterative site selection process to avoid the





Activity	Policy Ref	Policy Description	Assessment
		<ul> <li>a) that they will avoid displacement of other existing or authorised (but yet to be implemented) activities;</li> <li>b) how, if there are adverse impacts resulting in displacement by the proposal, they will minimise them;</li> <li>c) how, if the adverse impacts resulting in displacement by the proposal, cannot be minimised, they will be mitigated against or;</li> <li>d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts of displacement.</li> </ul>	displacement of other activities. This has taken account of environmental, physical, technical, commercial and social considerations and opportunities as well as engineering requirements. Full details on initial site selection, zone appraisal and site specific selection of windfarm site and cable corridor boundaries are presented in section 4.7 of Chapter 4 Site Selection and Assessment of Alternatives. Specialist and regulatory advice have influenced the design of the Projects. A full summary of the consultation process over project site selection and alternatives is presented in Appendix 4.1 Consultation Responses (APP-442).
			b and c) With regards to adverse impacts of other marine activities resulting in displacement, where interaction is unavoidable such as cable crossings, commercial agreements are to be put in place ahead of construction to ensure that these interactions are safe and prevent damage to other infrastructure. The potential impacts of the Projects on infrastructure and other users is assessed as non-significant or able to be fully mitigated through consultation with the relevant parties for construction, operation and decommissioning phases (section 17.7 of Chapter 17 Infrastructure and Other Users (APP-065)).
			d) Potential impacts relating specifically to vessel displacement around the windfarm site are assessed as broadly acceptable and the offshore cable corridor as no perceptible effect for the Project (section 14.10 of Chapter 14 Shipping and Navigation (APP-062)). Broadly acceptable is defined as: Risk as low as reasonably possible (ALARP) with





Activity	Policy Ref	Policy Description	Assessment
			no additional mitigations or monitoring required above embedded mitigations, including impacts that have no perceptible effect (effect would not be noticeable to receptors).
Marine Protected Areas	MPA1	Any impacts on the overall Marine Protected Area network must be taken account of in strategic level measures and assessments, with due regard given to any current agreed advice on an ecologically coherent network.	Impacts upon the MPA network have been considered from the earliest stages of site selection, since the original Round 3 Strategic Environmental Assessment (SEA) and Plan Level Habitats Regulation Assessment (HRA) were undertaken (see section 4.7.1 of Chapter 4 Site Selection and Assessment of Alternatives, assessments within the EIA (Chapter 7 Marine Geology, Oceanography and Physical Processes, Chapter 8 Marine Water and Sediment Quality, Chapter 9 Benthic Ecology, Chapter 10 Fish and Shellfish Ecology, Chapter 11 Marine Mammals and Chapter 12 Offshore Ornithology) and the Information to Support Appropriate Assessment Report (APP-043)
			Potential for impacts on Marine Conservation Zones (MCZs) was reviewed as part of the site selection process and the only site of relevance is the Orford Inshore MCZ. This is 4km from the offshore cable corridor for East Anglia ONE North and 2.1km for East Anglia TWO. Impacts were considered, but no pathways were identified for impacts to occur (section 7.5.9 of Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-055)).
Oil and Gas	OG1	Proposals within areas with existing oil and gas production should not be authorised except where compatibility with oil	A key site selection decision was to locate the offshore development area for the Project away from active oil and gas





Activity	Policy Ref	Policy Description	Assessment
		and gas production and infrastructure can be satisfactorily demonstrated.	wells (section 4.7.2 of Chapter 4 Site Selection and Assessment of Alternatives). Impacts are therefore avoided.
	OG2	Proposals for new oil and gas activity should be supported over proposals for other development.	Not applicable – proposal is not for new oil and gas activity.
Ports and Shipping	PS3	Proposals should demonstrate, in order of preference:  a) that they will not interfere with current activity and future opportunity for expansion of ports and harbours;  b) how, if the proposal may interfere with current activity and future opportunities for expansion, they will minimise this;  c) how, if the interference cannot be minimised, it will be mitigated;  d) the case for proceeding if it is not possible to minimise or mitigate the interference.	As per MMO relevant representation – MMO note this has already been considered in the ES.
Social and Cultural	SOC1	Proposals that provide health and social well-being benefits including through maintaining, or enhancing, access to the coast and marine area should be supported.	The site selection procedure has avoided recreational green space and minimised impacts to local residents in relation to access to services and road usage, including footpath closures (section 30.3.3.2 of Chapter 30 Tourism, Recreation and Socio-economics. The proposed onshore development area for the Projects includes 32 public rights of way (PRoWs) and some of these will require temporary alternative routing and management measures during construction, however the draft DCO (APP-023) requires alternative rights of way to be provided prior to PRoW being stopped up. The Applicant's commitment to using a trenchless technique such as HDD on the coast would remove impacts to the coastal path and





Activity	Policy Ref	Policy Description	Assessment
			maintain access to the beach at Thorpeness. (section 30.6.1.4). Potential indirect health impacts relating to social well-being are addressed in section 27.6.1.4 of Chapter 27 Human Health (APP-075)) and are assessed as not significant.
			A <b>PRoW Strategy</b> is secured under the requirements of the draft DCO, which aims to reduce construction phase impacts upon PRoW and provides full details of PRoW management measures. An <b>Outline Public Rights of Way Strategy</b> (APP-581) has been submitted with the DCO application.
	SOC2		As per MMO relevant representation – MMO note this has already been considered in the ES.
	SOC3	Proposals that may affect the terrestrial and marine character of an area should demonstrate, in order of preference:	Given the MMO's remit (seaward of MHWS), we have responded in terms of infrastructure that may affect offshore and coastal areas as opposed to permanent onshore
		a) that they will not adversely impact the terrestrial and marine character of an area;	infrastructure which is inland.
		b) how, if there are adverse impacts on the terrestrial and marine character of an area, they will minimise them;	Landscape character (terrestrial)  Context
		<ul><li>c) how, where these adverse impacts on the terrestrial and marine character of an area cannot be minimised they will be mitigated against;</li><li>d) the case for proceeding with the proposal if it is not possible</li></ul>	Landscape Character Types (LCTs) have been assigned to the Landscape Visual Impact Assessment (LVIA) study area based on the overarching National Character Areas (NCAs) originally identified by the Countryside Agency (shown in ES <i>Figure 29.2</i> (APP-392).
		to minimise or mitigate the adverse impacts	The LVIA study area is comprised of a number of LCTs from the Suffolk County LCA, but the onshore infrastructure is





Activity	Policy Ref	Policy Description	Assessment
			located within four LCTs. One of which is relevant to marine and coastal considerations at landfall (Coastal Dunes and Shingle Ridges).
			Offshore windfarm sites
			Significant construction and operational effects of the wind turbines are not anticipated to be widespread, but for East Anglia TWO will be localised and site specific, relating to the narrow coastal edges of the Suffolk coast - consisting of specific parts of the Coastal Dunes and Shingle Ridges LCT (05) and the coastal edges of the Estate Sandlands LCT (07) (section 29.10.1 and 29.10.2 of Chapter 29 Landscape and Visual Impact Assessment (APP-077)). Significant construction and operational effects from the East Anglia ONE North windfarm site are not anticipated on the narrow coastal edges of the Suffolk coast.
			The north-south extent of the proposed East Anglia TWO windfarm site has been reduced from that presented at Scoping and in the PEIR in order to mitigate impacts and stakeholder concerns around cumulative effects of offshore windfarms on the horizon. This was in direct response to stakeholder comments. Please refer to <i>Chapter 28 Offshore Seascape Landscape and Visual Amenity</i> (APP-076), section 28.3.3 for details.
			The effects of the construction and operation of the offshore infrastructure for the Projects are assessed as a 'total' cumulative effect resulting from both windfarm sites. In general, there are limited differences in the levels of





Activity	Policy Ref	Policy Description	Assessment
			magnitude of change and significance of effects set out in the assessment for the proposed East Anglia TWO windfarm site, with the addition of East Anglia ONE North resulting in a relatively low change/addition, with the combined magnitude of change only being slightly higher in the northern parts of the study area than that resulting from the proposed East Anglia TWO offshore infrastructure alone.
			The key differences in the perceived changes result mainly from the lateral spread of the Projects' windfarm sites on the horizon, which results in windfarm development occupying a wider field of view, although generally separated by a section of open sea skyline such that they will appear as separate offshore windfarms, rather than a combined grouping on the horizon.
			Landfall  In respect of the landfall location, significant effects would occur only during the construction phase for the Project for LCT 05 Coastal Dunes and Shingle Ridges, with no significant effects during the operational phase as there will be no above ground infrastructure.
			Seascape character (marine)
			The Seascape and Landscape Visual Impact Assessment (SLVIA) in the ES used these preliminary Seascape Character Types (SCTs) and established a further six (ES <i>Figure 28.10</i> (APP-324)). These SCTs were agreed through consultation with key stakeholders ( <i>Appendix 28.1 Consultation</i>





Activity	Policy Ref	Policy Description	Assessment
			Responses (APP-556) and section 28.2 of Chapter 28 Offshore Seascape, Landscape and Visual Amenity)).
			The Projects' windfarm sites are located within the Offshore Waters SCT (06) (ES <i>Figure 28.10</i> (APP-324). This seascape is formed by open expanses of sea with consistently deep waters. These are busy shipping waters, located at long distance from the shoreline, with several established commercial shipping routes with large vessels, as well as dredging activity, gas wells and three existing offshore windfarms (Greater Gabbard, Galloper and East Anglia ONE).
			The large scale of the open seascape is considered more likely to be able accommodate windfarm development than areas of more, complex seascape close to the shore. This seascape forms the immediate seascape setting along the coastline of the Suffolk Coast and Heaths AONB. The construction and operation of the offshore infrastructure is assessed as having significant effects on the seascape character of the area of the Nearshore Waters SCT (03) approximately between Kessingland and Orford Ness, which is located between the East Suffolk coast and the East Anglia ONE North / East Anglia TWO windfarm site. The effects on all other areas of the seascape including the Nearshore Waters SCT between Orford Ness and Bawdsey are assessed as not significant (section 28.13 of Chapter 28 Offshore Seascape Landscape and Visual Impact Assessment).
			Landscape effects are also integral to the SLVIA assessment. The impact on LCTs described in the above section has





Activity	Policy Ref	Policy Description	Assessment
			therefore been considered. This includes LCTs lying to the landward side of the mean low-water mark, including beaches, intertidal areas, coastlines and inland terrestrial areas with views of the Projects. Impacts on coastal LCTS have been summarised above in response to terrestrial character impacts.
			The Applicant has sought to minimise significant impacts as far as possible (reduction in north-south extent of the proposed East Anglia TWO windfarm site) although it is acknowledged that there remains a residual significant impact on certain LCTs. The case for proceeding with the Project relates to the need to transition to low carbon economies, a key driver of the policies and UK Government initiatives which support the development of renewable energy in the UK. The generation of utility-scale quantities of electricity from renewable energy sources can have a direct and measurable effect on climate change and in meeting the UK's climate change and emissions reduction targets (section 2.6 of Chapter 2 Need for the Project. (APP-050).
			The Projects would make a significant contribution to the achievement of the UK's national renewable energy targets and to the UK's contribution to global efforts to reduce the effects of climate change. The proposed East Anglia ONE North and East Anglia TWO projects would meet approximately 2% and 2.252% respectively of the UK's new

<sup>&</sup>lt;sup>2</sup> Based on an approximate generating capacities of 800MW and 900MW for East Anglia ONE North and East Anglia TWO respectively





Activity	Policy Ref	Policy Description	Assessment
			offshore wind cumulative deployment target for 2030 (40GW by 2030).
Tourism and Recreation	TR1	Proposals for development should demonstrate that during construction and operation, in order of preference:  a) they will not adversely impact tourism and recreation activities  b) how, if there are adverse impacts on tourism and recreation activities, they will minimise them  c) how, if the adverse impacts cannot be minimised, they will be mitigated  d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts	a) Potential impacts on tourism are addressed in <b>section 30.6</b> of ES <b>Chapter 30 Tourism, Recreation and Socio- Economics.</b> Impacts range from negligible to major beneficial. The Applicant is committed to maximising beneficial impacts by engaging with stakeholders on its skills and training enhancement and supply chain strategies ( <b>section 30.3.3.1</b> ) b-d) As there are no adverse impacts these are not relevant
	TR2	Proposals that require static objects in the East marine plan areas, should demonstrate, in order of preference:  a) that they will not adversely impact on recreational boating routes  b) how, if there are adverse impacts on recreational boating routes, they will minimise them  c) how, if the adverse impacts cannot be minimised, they will be mitigated  d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts	Recreational boating is assessed in ES <i>Chapter 14 Shipping and Navigation</i> .  For the purposes of assessment, vessels between 2.5 to 24m length (and not operating on a commercial basis) were identified as recreational.  a) Impacts on recreational boating are assessed as broadly acceptable for the Project for construction, operation and decommissioning. Cumulative impacts on recreational boating in the offshore cable corridor are assessed as no perceptible effect due to the limited area of installation and because during the operational phase there would not be any surface infrastructure requiring deviation. Cumulative impacts on





Activity	Policy Ref	Policy Description	Assessment
	TR3	Proposals that deliver tourism and/or recreation related benefits in communities adjacent to the East marine plan areas should be supported.	recreational boating in the proposed windfarm sites are assessed as broadly acceptable.  b – d) As there are no adverse impacts these are not relevant  The Projects are not intended to deliver tourism or recreational benefit.  Potential impacts to tourism and recreation are considered in section 30.6.1.4 of ES Chapter 30 Tourism, Recreation and Socio-Economics.
Offshore Wind	WIND2	Proposals for Offshore Wind Farms inside Round 3 zones, including relevant supporting projects and infrastructure, should be supported.	The Projects are offshore windfarms within a Round 3 zone.