



East Anglia TWO Offshore Windfarm

Development Consent and Planning Statement

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Glossary of Acronyms

AC	Alternating Current
AD	Air Defence
AEZ	Archaeological Exclusion Zone
AICS	Aeronautical Information Circulars
ALARP	As Low as reasonably Practicable
ALC	Agricultural Land Classification
AONB	Area of Outstanding Natural Beauty
AQMA	Air Quality Management Area
ATC	Air Traffic Control
ATS	Air Traffic Services
BEIS	Department for Business Energy and Industrial Strategy
BS	British Standard
CAA	Civil Aviation Authority
CCA	Climate Change Act
CCC	Committee on Climate Change
CCS	Construction Consolidation Sites
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CEMP	Construction Environmental Management Plan
CfD	Contract for Difference
CION	Connection and Infrastructure Options Note
CMS	Construction Method Statement
CNS	Communications, Navigation and Surveillance
CO2	Carbon Dioxide
CoCP	Code of Construction Practice
CoS	Chamber of Shipping
cSAC	Candidate Special Area of Conservation
CWS	County Wildlife Sites
CWFG	Commercial Working Fisheries Group
DCO	Development Consent Order
DECC	Department of Energy and Climate Change
DfT	Department for Transport
DML	Deemed Marine Licence
DPD	Development Plan Document
DTS	Distributed Temperature Sensing
DWR	Deep Water Route
EA	Environment Agency
ECoW	Ecological Clerk of Works
EEEG	East of England Energy Group
EIA	Environmental Impact Assessment
EMF	Electromagnetic Fields
EMP	Ecological Management Plan
ES	Environmental Statement
ESC	East Suffolk Council
ETG	Expert Topic Group
EU	European Union
FEPA	Food and Environmental Protection Act
FRA	Flood Risk Assessment
GLA	General Lighthouse Authority
GW	Giga watt
HDD	Horizontal Directional Drilling
HER	Historic Environment Record
HPA	Health Protection Agency
HRA	Habitat Regulations Assessments

HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
ICZM	Integrated Coastal Zone Management
IMO	International Maritime Organisation
IPC	Infrastructure Planning Commission
kWh	Kilo watt hours
KIS-ORCA	Kingfisher Information Service Offshore Renewable Cable Awareness
LCT	Landscape Character Type
LDF	Local Development Framework
LED	Light Emitting Diodes
LEP	Local Enterprise Partnership
LLFA	Lead Local Flood Authority
LMP	Landscape Management Plan
MCA	Maritime and Coastguard Agency
MCAA	Marine and Coastal Access Act 2009
MGN	Marine Guidance Note
MMO	Marine Management Organisation
MoD	Ministry of Defence
MoU	Memorandum of Understanding
MPS	Marine Policy Statement
MW	Mega watt
NAIZ	Non-Auto Initiation Zone
NALEP	New Anglia Local Enterprise Partnership
NATS	National Air Traffic Services
NCA	National Character Area
NE	Natural England
Nm	Nautical miles
NOTAMS	Notices to Airmen
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NRA	Navigation Risk Assessment
NRHE	National Record for the Historic Environment
NSIP	Nationally Important Infrastructure Project
OCOCP	Outline Code of Construction Practice
OLEMS	Outline Landscape and Ecological Management Strategy
OLMP	Outline Landscape Mitigation Plan
PA2008	Planning Act 2008
PEIR	Preliminary Environment Information Report
PHE	Public Health England
PINS	Planning Inspectorate
PPG	Planning Policy Guidance
PPRP	Pollution Prevention and Response Plan
PPS	Planning Policy Statement
PRoW	Public Right of Way
PSR	Primary Surveillance Radar
PTS	Permeant Threshold Shift
rMCZ	Recommended Marine Conservation Zone
RYA	Royal Yachting Association
SAC	Special Area of Conservation
SAR	Search and Rescue
SCC	Suffolk County Council
SCDC	Suffolk Coastal District Council
SCI	Sites of Community Importance
SCT	Seascape Character Type
SDG	Sustainable Development Goals
SFRA	Strategic Flood Risk Assessment

SIP	Site Integrity Plan
SLA	Special Landscape Area
SLVIA	Seascape, Landscape and Visual Amenity
SMPa	Shoreline Management Plan
SMPb	Soils Management Plan
SoS	Secretary of State
SPA	Special Protection Area
SPR	ScottishPower Renewables
SSR	Secondary Surveillance Radar
SSSI	Site of Special Scientific Interest
STEM	Science, Technology, Engineering, Mathematics
SuDS	Sustainable Urban and Rural Drainage schemes
TSS	Traffic Separation Scheme
TMZ	Transponder Mandatory Zone
tCO2	Total carbon dioxide
TTS	Temporary Threshold Shift
UK	United Kingdom
UXO	Unexploded Ordnance
VWPL	Vattenfall Wind Power Limited
WDC	Waveney District Council
WSI	Written Scheme of Investigation
ZEA	Zone Environmental Appraisal
ZTA	Zone Technical Appraisal

Glossary of Terminology

Applicant	East Anglia TWO Limited.
Construction operation and maintenance platform	A fixed offshore structure required for construction, operation, and maintenance personnel and activities.
Development area	The area comprising the Proposed Onshore Development Area and the Offshore Development Area
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.
Horizontal directional drilling (HDD)	A method of cable installation where the cable is drilled beneath a feature without the need for trenching.
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 regular 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.
Met mast	An offshore structure which contains metrological instruments used for wind data acquisition.
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.
Offshore cable corridor	This is the area which will contain the offshore export cables between offshore electrical platforms and landfall jointing bay.
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 and two fibre optic cables.
Proposed onshore development area	The area in which the landfall, onshore cable corridor, onshore substation, 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 substation	The East Anglia TWO substation and all of the electrical equipment, both within 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.

Figures associated with this Development Consent and Planning Statement are listed in the table below.

Figure number	Title
3.1	East Anglia TWO - Offshore Development Area and Licensed Aggregate Areas
3.2	East Anglia TWO - Onshore Development Area and Statutory Designated Sites
6.1	East Anglia TWO – Consented Offshore Windfarms, North Norfolk and The Wash

1 Introduction

1.1 Project Overview

1. ScottishPower Renewables (SPR), via its project companies, is currently developing the proposed East Anglia TWO offshore windfarm project (the proposed East Anglia TWO project). East Anglia TWO Limited (the Applicant), which is a wholly owned subsidiary of Scottish Power Renewables (SPR), is seeking development consent for the proposed East Anglia TWO project. The proposed site of the offshore infrastructure is located in the southern North Sea, approximately 33 kilometres (km) from Southwold and would cover an area of 218km². The proposed East Anglia TWO project will have a generating capacity estimated at 900 Mega Watts (MW)¹. When operational, the project would have the potential to provide the equivalent of up to 800,416² homes with power.
2. The proposed East Anglia TWO project comprises the offshore wind farm array and associated infrastructure such as subsea cables and offshore platforms. Onshore works will involve underground cables and substations and the joining of offshore and onshore cables at landfall north of Thorpeness. Further details are summarised in **Section 3.5** of this document. A full project description is provided in **Chapter 6 Project Description** of the Environmental Statement (ES).
3. Another project in the former East Anglia Zone, the proposed East Anglia ONE North project, is being developed in parallel by East Anglia ONE North Limited, another SPR company. Separate Development Consent Order (DCO) applications for the proposed East Anglia TWO and East Anglia ONE North projects will be submitted.

1.2 Nationally Significant Infrastructure Projects and Development Consent

4. Development consent is required under the provisions of the Planning Act 2008 (PA2008) (as amended) or development that is, or forms part of, a Nationally Significant Infrastructure Project (NSIP). PA2008 sets out the thresholds above which certain types of infrastructure development are considered to be NSIPS and therefore require a DCO. Developments classified as NSIPS are usually large scale, nationally significant developments such as new ports, airports,

¹ As measured at point of connection of the onshore cables to the onshore substation.

² Calculated taking the number of megawatts (900) multiplied by the number of hours in one year (8,766), multiplied by the average load factor for offshore wind (38.36 %, published by the Digest of United Kingdom Energy Statistics), divided by the average annual household energy consumption (3.781MWh kilo Watt hours (kWh)), giving an equivalent of powering 800,416 homes.

major road and rail schemes or power generating stations. These criteria are applied to the proposed East Anglia TWO Project as set out below.

1.2.1 Offshore Generating Station

5. The PA2008 sets out that for offshore generating station and transmission developments in waters in or adjacent to England/within the UK Renewable Energy Zone, the NSIP threshold is a generating capacity of over 100MW.
6. As part of the DCO authorised works for the proposed East Anglia TWO project, the offshore wind farm with an installed generating capacity of up to 900MW is required as the generating station, connected to offshore, and in turn the onshore cable corridor. The proposed East Anglia TWO project is therefore an offshore generating station NSIP. The site of the offshore wind farm is within the UK Renewable energy zone. The following infrastructure will be required:
 - Wind turbines and associated foundations;
 - Offshore electrical platforms and associated foundations;
 - Offshore construction, operation and maintenance platform and associated foundations;
 - A meteorological mast and its foundation;
 - Offshore export cables;
 - Fibre optic cables;
 - Platform link cables; and
 - Inter array cables.
7. Bringing of offshore export cables ashore to connect to onshore cables within an underground transition bay will also be required (see **section 3.5.1** for further details).

1.2.2 National Grid Infrastructure

8. New National Grid substation and National Grid overhead line realignment works (together referred to as the National Grid infrastructure, also explained in **section 3.5.2 of Project Description**) are required to connect the East Anglia TWO onshore substation to the national electricity grid and National Grid overhead line realignment works will comprise of temporary and permanent stages (some of which may overlap) (see **Plate 6.30** and **section 6.7.9.1.2** of ES **Chapter 6 Project Description for further details**):
9. These modifications to the existing overhead lines will include the permanent realignment of up to 1km in length of the northern overhead line further north, including a temporary diversion of the northern overhead lines of up to 1.2km in length and the permanent realignment of each of the two southern circuits of up to 0.8km in length, including a temporary diversion of up to 0.3km in length

supported on up to two guyed masts or one pylon of up to 59.2m in height above ground level.

10. Under PA2008, the installation of an electric line above ground in England is an NSIP unless it falls within certain exclusions. For the proposed East Anglia TWO project, in order to connect to the national electricity grid, the new National Grid substation which is required will connect into the existing National Grid 400kV overhead lines. Overhead line realignment works are necessary to facilitate this connection. Taken together, these overhead line realignment works are not less than 2km in length on aggregate and do not fall into any of the exclusions listed in PA2008. They are therefore considered to fall within the definitions of S16 of PA2008 and are an electric line above ground NSIP.

1.2.3 Requirement for Development Consent

11. Since both the offshore generating station and the National Grid overhead line elements of the East Anglia TWO project constitute NSIPS, development consent is required for the project under S31 of PA2008 and as such a DCO application, supported by an ES, is submitted by the Applicant in respect of the proposed project. As set out below, this Development Consent and Planning Statement sets out the accordance of all elements of the project, with the relevant National Policy Statement (NPS) policies and other policy and legislative requirements.
12. Following submission of the DCO application and a period of examination, and resultant report and recommendation made by the Examining Authority, a decision will be made by the Secretary of State for Business, Energy and Industrial Strategy, on whether to grant development consent and make the Development Consent Order for the project to proceed.

1.3 Development Consent Order Application Documents and Structure

13. A full list of the DCO documents associated with this project is in **Table 1.1** below:

Table 1.1 East Anglia TWO DCO Documents

Document	Document Reference Number
Plans and Drawings	
Offshore Location Plan	2.1.1
Onshore Location Plans	2.1.2
Land Plans	2.2
Offshore Works Plan	2.3.1
Onshore Works Plan	2.3.2
Access to Works Plan	2.4

Document	Document Reference Number
Plan showing Temporary Stopping Up of Public Rights of Way	2.5
Plan showing Permanent Stopping Up of Public Rights of Way	2.6
Plan showing statutory or Non-Statutory historic or scheduled monument sites/features of the offshore historic environment	2.7.1
Plan showing statutory or Non-Statutory historic or scheduled monument sites/features of the onshore historic environment	2.7.2
Plan of Statutory or Non-Statutory Sites or Features of Nature Conservation in the Offshore Environment	2.8.1
Plan of Statutory or Non-Statutory Sites or Features of Nature Conservation in the Onshore Environment	2.8.2
Offshore Plan Showing any Crown Land	2.9
Important Hedgerows and Tree Preservation Order Plan	2.10
Radar Line of Sight Coverage Plan	2.11
Order Limits Boundary Co-ordinates Plan	2.12
Development Consent Order	
Draft DCO	3.1
Explanatory Memorandum	3.2
Compulsory Acquisition Information	
Statement of Reasons	4.1
Funding Statement	4.2
Book of Reference	4.3
Reports / Statements	
Consultation Report	5.1
Statement of Engagement with section 79(1) of the Environmental Protection Act 1990	5.2
Information to Support the Appropriate Assessment Report	5.3
Consents and Licences Required under other Legislation	5.4
Environmental Impact Assessment	
Volume 1 ES Chapters	6.1
Volume 2 Figures	6.2
Volume 3 Technical Appendices	6.3
Non-Technical Summary	6.4
Schedule of Mitigation (Onshore)	6.7

Document	Document Reference Number
Schedule of Mitigation (Offshore)	6.6
Scoping Opinion	6.5
Additional Information for specific types of infrastructure	
Cable Statement	7.1
Safety Zone Statement	7.2
Other Documents (Onshore)	
Outline Code of Construction Practice	8.1
Development Consent and Planning Statement	8.2
Design and Access Statement	8.3
Outline Public Rights of Way Strategy	8.4
Outline Written Scheme of Investigation (Onshore)	8.5
Outline Landscape and Ecological Management Strategy	8.7
Outline Onshore Substation Design Principles Statement	8.8
Outline Construction Traffic Management Plan	8.9
Outline Access Management Plan	8.10
Outline Travel Plan	8.11
Pre commencement archaeological execution plan	8.20
Other Documents (Offshore)	
Outline Written Scheme of Investigation (Offshore)	8.6
Outline Offshore Operations and Maintenance Plan	8.12
In Principle Monitoring Plan	8.13
Draft Marine Mammal Mitigation Protocol	8.14
Site Characterisation Report (for purposes of disposal licensing offshore) – Windfarm Site	8.15
Site Characterisation Report (for purposes of disposal licensing offshore) – Offshore Cable Corridor	8.16
In Principle Southern North Sea SAC Site Integrity Plan	8.17
Outline Navigation Monitoring Strategy	8.18
Other (Offshore and Onshore)	
Scheme Implementation Report	8.19
Interface document	8.21

14. The draft DCO also includes two deemed marine licences under the Marine and Coastal Access Act 2009 to authorise the marine activities associated with the proposed East Anglia TWO project.
15. In addition, the draft DCO includes provisions to allow construction and operation of the proposed East Anglia TWO project using:
 - Powers to compulsorily acquire land or rights; and
 - Powers to divert or stop public rights of way.
16. Offshore consents required for the development to become operational are outlined in **Table 1.2**.

Table 1.2 Offshore consents required for East Anglia TWO

Nature of Consent	Legislation	Consenting Authority	Anticipated Application Date	Content of Consent/Licence
Offshore Consents				
Coastal Station Radio Licence	Wireless Telegraphy Act 2006	Radiocommunications Agency	Post DCO	The principal legislation governing the use of radio in the UK is the Wireless Telegraphy Act 2006. This Act requires the possession of a licence to install or use wireless telegraphy (radio) apparatus unless the equipment has been exempted from this requirement. Coastal Station Radio licences are designed to allow coast (base) stations on shore to communicate with vessels. The Applicant does not anticipate any issues with obtaining such a licence, as it is a matter of requesting a channel from the Radiocommunications Agency and paying the appropriate fee.
Decommissioning Scheme	Energy Act 2004	DECC	Post DCO	The Secretary of State will require a decommissioning programme to be submitted prior to commencement of authorised development pursuant to section 105(6) of the Energy Act 2004.

Nature of Consent	Legislation	Consenting Authority	Anticipated Application Date	Content of Consent/Licence
Energy Generation Licence	Electricity Act 1989	Office of Gas and Electricity Markets (OfGEM)	Currently being sought	The Applicant is seeking a generation licence pursuant to section 6(1)(a) of the Electricity Act 1989, which will authorise the Applicant to generate electricity in a specified area for the purposes of giving a supply to any premises in a specified area or enabling a supply to be so given.
European Protected Species (EPS) Licence (<i>if required</i>)	The Conservation of Habitats and Species Regulations 2017	Marine Management Organisation (MMO)	Post DCO	It is an offence to deliberately kill, capture or disturb European protected species, and to damage or destroy their breeding sites or resting places. EPS Licences can be obtained to allow persons to carry out activities that would otherwise be prohibited, without committing an offence. An EPS licence will be sought from the MMO at post-consent.
F10 – Notification of Construction Project	Construction (Design and Management) Regulations 2015	Health and Safety Executive	Post DCO	The Construction (Design and Management) Regulations 2015 require particulars of the Project to be notified to the Health and Safety Executive in advance of construction. This would be sought by the appointed contractor.

Nature of Consent	Legislation	Consenting Authority	Anticipated Application Date	Content of Consent/Licence
Safety Zones	Energy Act 2004	DECC	Post DCO	<p>Where a safety zone relates to a NSIP, the appropriate decision maker for safety zones is the Secretary of State, who has delegated that function to DECC. The safety zone application will therefore be made to DECC, which may, if it is considered appropriate to do so, issue a notice declaring that such areas as are specified or described in the notice are to be safety zones. Consultation with DECC will commence once the safety zone application has been submitted, and DECC will then provide comment on the proposed safety zones at this time and following the notice period. The application will be subject to consultation with MCA along with any relevant shipping interests.</p>

1.4 Development Consent and Planning Statement

17. This Development Consent and Planning Statement has been prepared in support of the DCO application for the proposed East Anglia TWO project. The Development Consent and Planning Statement forms part of the suite of DCO application documentation submitted to The Planning Inspectorate. The purpose of this document is to set out the legal and policy context within which the application will be examined and decided. The principle policy context is provided by relevant NPSs, since the application must be decided in accordance with them as required in S104 PA2008. NPSs set out policy, including planning policy, for the determination of DCO applications. This Statement therefore sets out how the application accords with this NPS policy, and with other relevant national, regional and local policy, including planning policy, and with legislation.
18. The proposed East Anglia TWO project has been subject to formal Environmental Impact Assessment (EIA) procedures, the outcomes of which have been reported in the Environmental Statement (ES) that accompanies the DCO application. The proposed East Anglia TWO project is also subject to Habitats Regulations Assessment (HRA) (see the **Report to Inform the Appropriate Assessment** (document reference 5.3)) to determine its potential effects on European Designated Sites and Species.
19. Aspects concerning the need for the project (**section 5** of this document), the site selection process (**section 3.3** of this document), and alternative designs and technologies (**section 3.4** of this document) considered by East Anglia TWO Limited during the design-development process are explained fully in ES **Chapter 4 Site Selection and Alternatives**, and presented in summary form within this Development Consent and Planning Statement. The full legislative and policy context relating to renewable energy within which the proposed East Anglia TWO project would be progressed is presented in ES **Chapter 3 Policy and Legislative Context**.
20. The outcomes of the EIA and Report to Inform the Appropriate Assessment have informed the content of this Development Consent and Planning Statement, specifically in relation to assisting the determination of accordance of the proposed East Anglia TWO project, with the relevant NPSs.
21. The Development Consent and Planning Statement is structured in the following manner:
 - **Section 2:** This section presents an overview of the context for the scheme, and considers the relationship of the proposed East Anglia TWO and East Anglia ONE North projects, with the East Anglia ONE (in construction) and East Anglia THREE (consented) projects.

- **Section 3:** This section sets out the planning history of the onshore and offshore development sites, and provides an overview of the site selection and design evolution process for the proposed East Anglia TWO project. Descriptions of the site and the proposed East Anglia TWO project are also presented within this section.
- **Section 4:** This section presents the policy and planning framework against which the application will be examined and decided.
- **Section 5:** This section presents the policy case and need for the development with reference to the NPSs and other Government policy.
- **Section 6:** This section sets out how the application accords with decision making policies in all relevant NPSs and with other policy tests, so as to inform the examination and decision on the project with regard to the planning balance.
- **Section 7:** This section considers the application of national policy and planning policy and guidance to the principle measures employed to mitigate the impacts of the project, as set out in the DCO Requirements.

2 Background and Context for Development

22. In 2010, The Crown Estate announced the successful bidders to the Round 3 offshore windfarm zones. East Anglia Offshore Wind, a 50:50 joint venture between SPR and Vattenfall Wind Power Limited (VWPL), was successful in securing rights to develop offshore wind capacity within what was originally referred to as the 'East Anglia Zone'. After successfully obtaining consent and a CfD (Contract for Difference) for East Anglia ONE, and successfully submitting the application for consent for East Anglia THREE (now consented), SPR and VWPL split the zone. SPR agreed to develop the southern half of the former East Anglia Zone and VWPL agreed to develop the northern half of the former East Anglia Zone. SPR are now responsible for East Anglia ONE, East Anglia THREE, the proposed East Anglia TWO project, and the proposed East Anglia ONE North project, and the Zone is now referred to as the former East Anglia Zone.
23. In 2010, East Anglia Offshore Wind signed grid connection agreements with National Grid for up to six 1.2 Giga Watt (GW) offshore wind projects. The connection offers were based on the existing and contracted generation background at that time, which included the capacity and proposed timing of Sizewell C amongst others. At that time, the most economic and efficient connections (considering environmental and programme implications) were identified at Bramford for the East Anglia ONE, East Anglia TWO and East Anglia THREE projects. There was no available capacity near Sizewell to accommodate the projects at that time.
24. In line with their duties under Section 9 of the Electricity Act 1989, National Grid are required to undertake an appropriate review through Connection and Infrastructure Options Note (CION) Process, having regard to the specific statutory duties incumbent upon them. In spring 2017, National Grid advised that, due to the changing contracted background and improvements to transmission technology, connection capacity could be available in the Sizewell area. The CION process reviewed all realistic options, and in summer 2017, concluded that the most economic and efficient connections for the proposed East Anglia TWO and East Anglia ONE North projects, while considering environmental and programme implications, would be into the circuits in the Sizewell and Leiston area

2.1 Relationship with East Anglia ONE North

25. The Applicant considered conjoining the two separate projects, and the Planning Inspectorate (PINS) advice to SPR was that it would be possible to submit one

application for two separate projects, confirming that one DCO can grant consent for more than one project. However, the viability of each project rests on each being its own commercial and physical entity. East Anglia TWO has a different wind farm location from East Anglia ONE North, is designed to be executed independently of other projects, and separate companies exist to deliver each project. Continuing to progress the projects and DCOs independently, maintains their integrity and serves to ensure complete robustness of the viability and deliverability of each project. Government NPS policy supports applicants' ability to decide how to bring forward NSIP projects:

"2.2.19 It remains a matter for the market to decide where and how to build, as market mechanisms will deliver the required infrastructure most efficiently"

26. Overarching NPS for Energy EN-1 also states that:

"3.1.2 It is for industry to propose new energy infrastructure projects within the strategic framework set by Government"

27. Ensuring the viability of a DCO application is an important EN-1 policy as it is necessary that any DCO is capable of being implemented. Paragraph 4.1.9 expects applicants to have properly considered *"the financial and technical viability"* of the application project. The financial and technical viability of the East Anglia TWO project is based on it being capable of being executed independently of other projects. Conjoining the application project with another independent project could adversely affect its viability, contrary to paragraph 4.1.9 of EN-1.

28. However, in order to ensure all stakeholders have a full and complete understanding of SPR's East Anglia development portfolio including cumulative impacts, the proposed East Anglia TWO and East Anglia ONE North projects have, as far as possible, been developed in parallel.

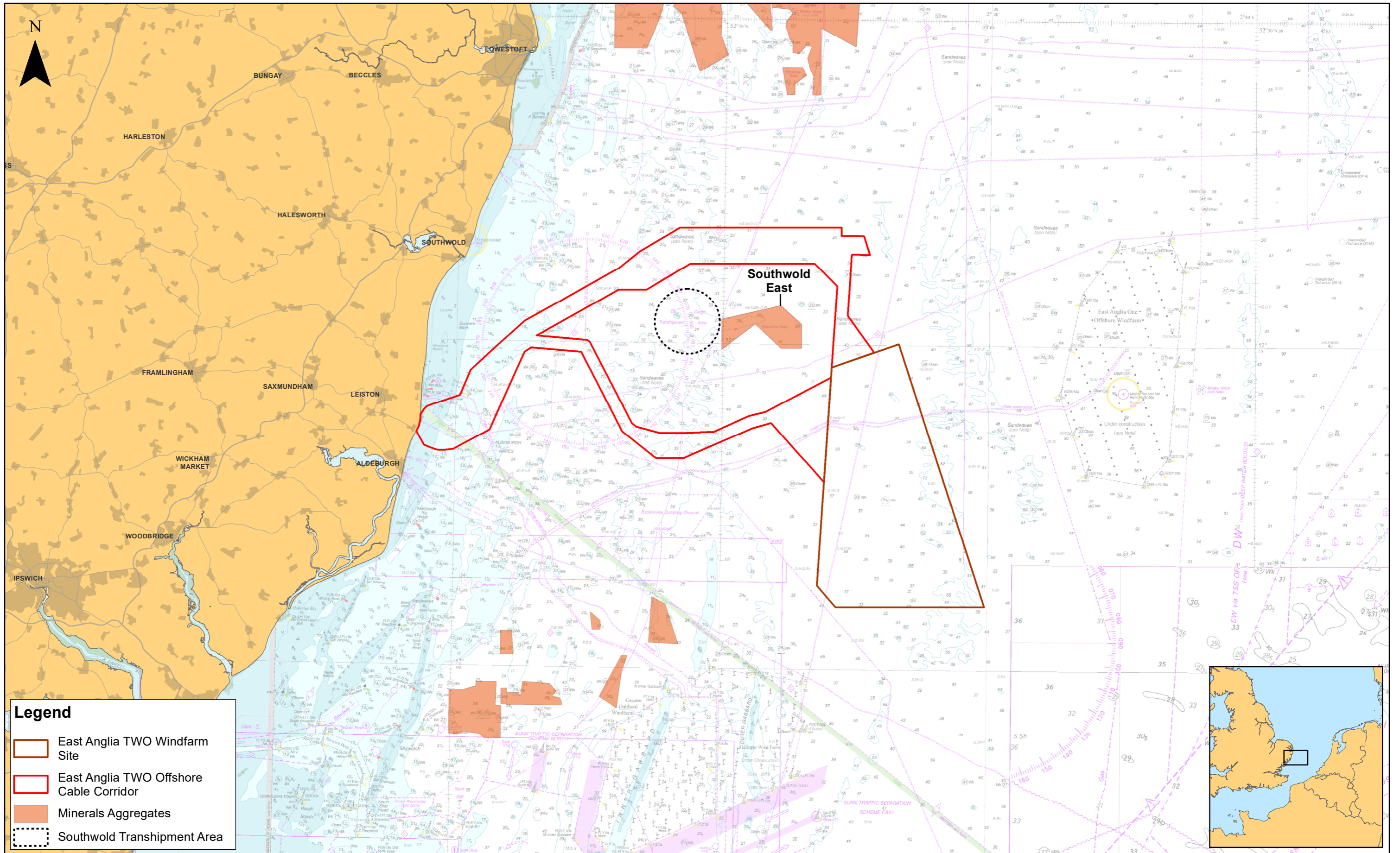
29. Additionally, due to the geographic overlap of the onshore development area and some of the offshore development area, the submission of two separate applications allows for an improved understanding of the cumulative impacts.

30. Consultation with PINS confirmed that submission of the applications at the same time would be preferable to submitting the applications with a time delay between them. Joint submission allows the examinations to be coordinated in such a way to minimise resource implications for all parties. The review process for stakeholders is assisted by the development of a suite of interface documents, submitted with each application as signposting tools for navigation of differences between documents, to ensure efficient review and reduced pressure on stakeholder resource.

3 The Application Location and Project Description

3.1 Site Description

31. The East Anglia TWO windfarm site is located in the southern North Sea, approximately 32.6 km from its nearest point to Southwold. The East Anglia TWO windfarm site will cover an area of approximately 218km². Water depths within the site range from 33 to 67m (relative to the LAT) with depth generally increasing in the south-east.
32. The proposed East Anglia TWO project includes two potential offshore cable corridor routes from the landfall to the East Anglia TWO windfarm site (**Figure 3.1**). The northern route passes to the north of the Southwold Aggregates Area and Southwold Transshipment Area, and would allow for a connection to an offshore electrical platform in the north of the East Anglia TWO windfarm site. The southern route passes to the south of the Southwold Aggregates Area and Southwold Transshipment Area, and allows for connection to an offshore electrical platform in the centre or south of the East Anglia TWO windfarm site. The northern route cable corridor has sufficient width to include export cables for the proposed East Anglia ONE North project.
33. The East Anglia TWO DCO application includes both routes, however only one route will be used. Detailed electrical design undertaken post-consent will determine which route is selected.
34. It is proposed that up to two offshore export cables would make landfall north of Thorpeness in Suffolk. The East Anglia TWO landfall is characterised by a shingle beach at the wave break point, with a raised terrace of shingle at the base of low-lying cliffs (approximately 10m above ordnance datum) which are partially vegetated by grasses, gorse and other small shrubs. The beach is designated as a Site of Special Scientific Interest (SSSI) for a rich mosaic of habitats including acid grassland, heath, scrub, woodland, fen, open water and vegetated shingle, which is under the careful management of Natural England. There are no formal coastal defences associated with flood prevention or coastal stability at the landfall location. Landfall would be made by use of horizontal directional drilling (HDD). Cable ducts would be installed from transition bays 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 ducts would then pass beneath the cliffs with the end of the HDD ducts buried under the sea bed beyond the intertidal zone.



Rev	Date	By	Comment	Approved:
2	03/10/2019	FC	Second Issue.	FC
1	06/08/2019	FC	First Issue.	TF

1:300,000
Scale @ A3

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East Anglia TWO

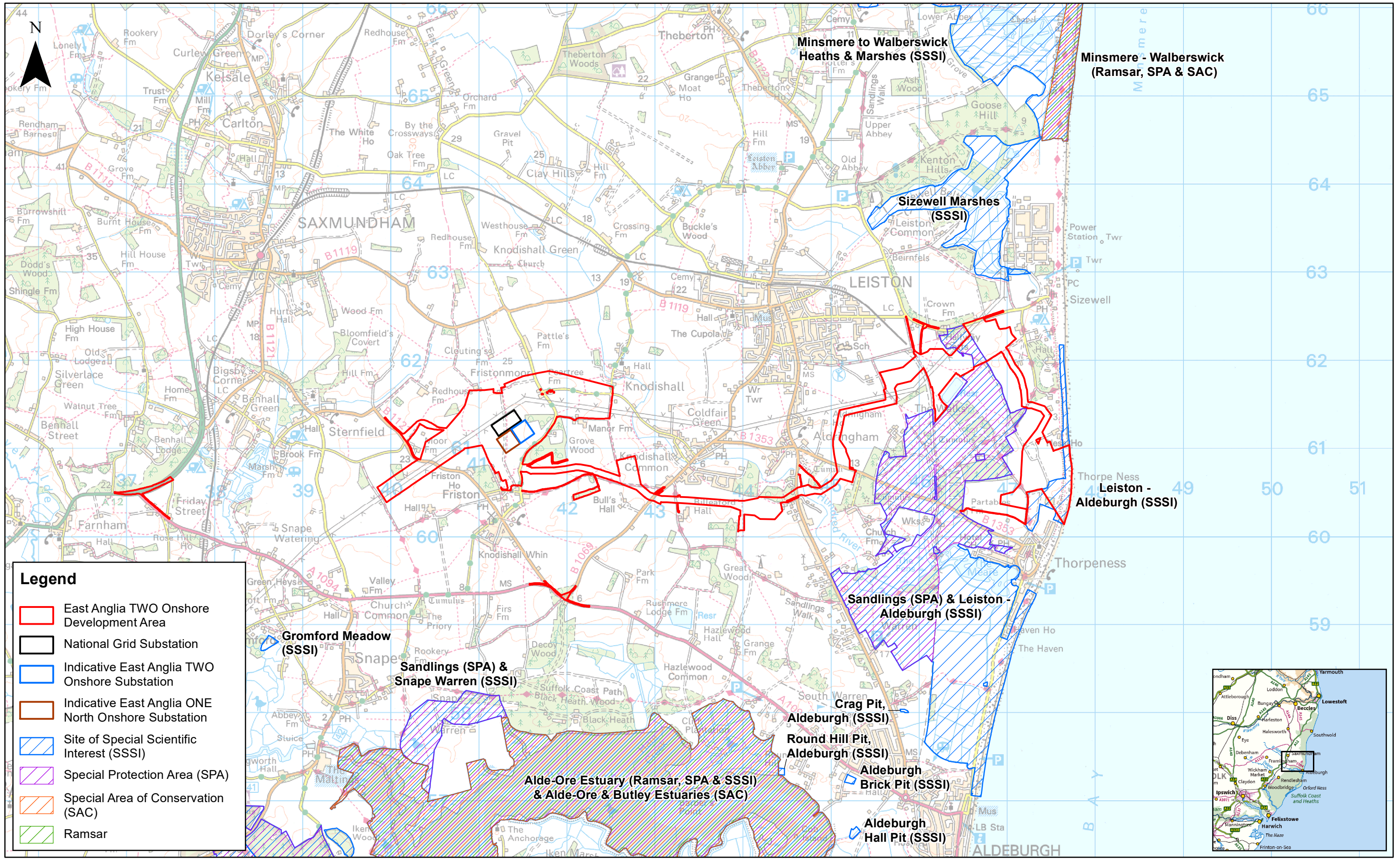
East Anglia TWO Offshore Development Area

Drg No	EA2-DEV-DRG-IBR-001001	
Rev	2	Datum: WGS 1984
Date	03/10/19	Projection: Zone 31N
Figure	3.1	

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35. The transition bays would be located in arable farmland. Off-site and directly south of the landfall on the cliff is Thorpeness Village. North is the residential property Ness House.
36. The proposed route for the onshore cables is approximately 9km long and is shown in **Figure 3.2**. A description of the onshore cable route is provided below.
37. Commencing at the transition bay approximately 500m north of the edge of Thorpeness, the onshore cable route runs in a northerly direction, crossing three local tracks as it travels approximately 1.5km through agricultural land (comprising small irregular shaped fields) parallel to the edge of the Leiston – Aldeburgh SSSI and Sandings SPA and coastline.
38. Approximately 1.5km from the landfall, the onshore cable route turns in a westerly direction and crosses the Leiston – Aldeburgh SSSI and Sandings SPA (**Figure 3.2**). After crossing the SSSI and SPA, the route runs in a south-westerly direction for approximately 2km, crossing the dismantled railway, through agricultural land.
39. The onshore cable route crosses the B1353 Thorpeness Road at approximate NGR TM45126080 and continues in a south-westerly direction to the crossing point of the Hundred River and then turns immediately west to the crossing point of the B1122 Aldeburgh Road.
40. Immediately after crossing the B1122 Aldeburgh Road, the onshore cable route continues west through the woodland belt south of Aldringham Court Nursing Home for approximately 350m. It should be noted that the proposed onshore development area has been narrowed at this point to minimise the interaction with woodland and potential environmental impacts.
41. After passing through the woodland belt, the route continues in a westerly direction for approximately 1km passing through agricultural fields, travelling south of Coldfair Green until the crossing point of Sloe Lane and, further west, the crossing point of the B1069 Snape Road.
42. From the crossing of the B1069 Snape Road, the onshore cable route turns in a north-westerly direction for approximately 1.5km.
43. Two substations are required for the proposed East Anglia TWO project: one is the proposed East Anglia TWO project onshore substation and the other is the National Grid substation. It is proposed that they will be sited adjacent to one another.

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Legend

- East Anglia TWO Onshore Development Area
- National Grid Substation
- Indicative East Anglia TWO Onshore Substation
- Indicative East Anglia ONE North Onshore Substation
- Site of Special Scientific Interest (SSSI)
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- Ramsar



Rev	Date	By	Comment
1	05/08/2019	FC	First Issue.

Prepared:	FC
Checked:	TF
Approved:	AH

1:40,000
Scale @ A3

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East Anglia TWO
Onshore Designated Sites (Statutory)

Drg No	EA2-DEV-DRG-IBR-000998	Coordinate System:	BNG
Rev	1	Datum:	OSGB36
Date	05/08/19		
Figure	3.2		

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44. As described in **Chapter 5 EIA Methodology**, there are two co-located onshore substation locations for either the proposed East Anglia TWO project or the proposed East Anglia ONE North project. It should be noted that the draft DCOs for both the proposed East Anglia TWO and East Anglia ONE North projects have the flexibility for either project to use either onshore substation location (**Figure 3.2**).
45. The onshore substations and National Grid substation location is on agricultural land of Grade 2 and Grade 3 quality. Grade 2 is 'Very Good Quality' land with minor limitations which affect crop yields, whereas Grade 3 is 'Good to Moderate' land with moderate limitations which affect the choice of crops.
46. 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 (eastern) and National Grid substation will be mostly contained and, in so doing, contribute to the mitigation of landscape and visual effects. This however will not mitigate views of the onshore substation (eastern) for residents at B1121 Aldeburgh Road, South of Friston. This will also be the case for residents at Grove Road, near Church Road, Friston for the alternative onshore substation (western).
47. From the outset, the design approach has included careful siting of the onshore substation and National Grid substation, which has set out to avoid key areas of sensitivity wherever possible. The onshore substation location avoids all international, national, county and local landscape designations. Embedded mitigation has included:
- Careful siting of the East Anglia TWO 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 East Anglia TWO 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 East Anglia TWO onshore substation and National Grid substation in an area of low flood risk (Flood Zone 1).

3.2 Planning History

48. This section considers the planning history of the development sites in the areas where the onshore and offshore infrastructure for the proposed East Anglia TWO project will be located. **Table 3.1** summarises the onshore and offshore planning history at the proposed East Anglia TWO project development sites.

Table 3.1. Onshore and Offshore Planning History

Project	Description	Location Interaction	Included in Cumulative Impact Assessment	Status
Onshore				
Sizewell C New Nuclear Power Station	Main development site for Sizewell C. Comprises the nuclear power station, access road and temporary development required for construction. An area of land to the west/south-west of Sizewell B will also be required during the construction phase. In addition, land may be required permanently or temporarily for associated development, such as a Visitor Centre, accommodation campus, and park and ride facilities.	<2km from onshore development area. The cable route may interact with Sizewell C's cooling water intakes and outfalls.	Yes, where relevant for each ES Chapter topic.	Pre-application
East Anglia One North	The proposed East Anglia ONE North project has a separate DCO application, but was submitted alongside the proposed East Anglia TWO project DCO application.	The two projects will share the same landfall and onshore cable route and the two onshore substations will be co-located.	Yes	Submitted
Church Farm Wind turbine	Planning ref C/10/2579. Erection of wind turbine with a 25m tall tower and a rotor diameter of 19.2m to serve Church Farm. Land South East of Church Farm, Friston. Notable development just <1km south of proposed substations at Friston.	Within boundary of onshore development area near Friston.	No	Withdrawn in 2010

Project	Description	Location Interaction	Included in Cumulative Impact Assessment	Status
Church Farm Wind Turbine	Installation of a single 18m wind turbine (25m to blade) in a field to the South of Church Farm. Will supply Church Farm, Friston with surplus to the National Grid). Planning ref C/11/0852.		No	Permitted in 2011
Sizewell A Power Station, Former Sub-station Building	Demolition notification. Prior approval not required. Ref DC/18/4603/DEM		No	Decided Dec 2018
Sizewell A Power Station, Installation of a new welmesh security fence to some boundaries of Sizewell A site.	Ref DC/17/4974/FUL. Weld mesh fence 3m high – 483m in length. Chain link fence 1.8m high – 282 in length.		No	Permitted in 2017
Sizewell A Power Station, building and equipment.	Ref DC/17/2863/FUL . Construction of building and equipment to facilitate part of the decommissioning programme.		No	Permitted in 2017
Galopper Wind Farm Construction Phase overspill car park.	Ref DC/17/0923/VOC Variation of condition 2 of DC/16/2320/FUL - The approved development was a temporary overspill car park to support the construction phase of the consented Galopper Wind Farm. The overspill car park was located on the area of made ground to the south of a plantation woodland (Sizewell Wents) - The purpose of the overspill car park was to support the Galopper Wind Farm construction programme and the construction and commissioning programme, for the on-shore electrical substation extends until December 2017.	Near boundary of onshore development area near Leiston.	No	Permission expired April 2018.

Project	Description	Location Interaction	Included in Cumulative Impact Assessment	Status
Communication Mast	Ref DC/14/2522/FUL. The erection of a 25m communication mast for provision of high speed broadband to primarily rural areas.		No	Permitted in 2014.
Sea defence structure	Ref DC/15/5004/FUL. Retrospective planning permission sought for sea defence and earth retaining structure built to protect the Tinkers End flats and Stella Maris frontage.	Within boundary of onshore development area, specifically landfall near Thorpeness.	No	Permitted in 2016.
Wind turbine	Ref C/13/0674. Installation of 1 No. micro scale wind turbine (14.97m to hub 5.6 diameter blades).	Within boundary of onshore development near Aldringham.	No	Awaiting decision
Offshore				
Benacre – Zandvoort No 2	Telecommunications cable which is now out of service	Offshore cable corridor and windfarm site	No	Complete
Concerto 1 North (1N)	The Concerto North telecommunications cable is an optic fibre cable linking UK (Thorpeness) to the Netherlands (Zandvoort). Installed in 1998 it was buried to nearly 1m.	Offshore cable corridor and windfarm site	No	Complete
Concerto 1 South (1S)	The Concerto South telecommunications cable is an optic fibre cable linking UK (Thorpeness) to Belgium (Zeebrugge).	Offshore cable corridor	No	Complete
Hermes North	Telecommunications cable which is now out of service.	Offshore cable corridor and windfarm site	No	Complete

Project	Description	Location Interaction	Included in Cumulative Impact Assessment	Status
Atlantic Crossing 1	Telecommunications cable completed in 1998.	Windfarm site	No	Complete
Greater Gabbard export cable route	Greater Gabbard export cable route Three 45km subsea cables Granted Planning Permission in 2007 (CO6/2191)	Offshore cable corridor	Yes	Complete
Galloper export cable route	Galloper export cable route Two buried subsea export cables, each approximately 45km in length. <u>Development Consent Order</u> granted in 2013.	Offshore cable corridor	Yes	Complete
East Anglia ONE export cable route	Two transmission cables	Offshore cable corridor and Windfarm site	Yes	In construction
East Anglia THREE export cable route	Three transmission cables	Offshore cable corridor and Windfarm site	Yes	Consented

49. Impacts to existing sub-sea cable infrastructure outlined in **Table 3.1** above will be negligible, as the Applicant will enter into proximity and cable crossing agreements with these other operators. Cable owners have been, and will continue to be, consulted by the Applicant and new agreements put in place where required. Please see **section 17.6.1** of ES **Chapter 17 Infrastructure and Other Users** for more information.
50. ES **Chapter 17 Infrastructure and Other Users** includes an assessment of the offshore impacts of the proposed East Anglia TWO project upon East Anglia ONE, the proposed East Anglia ONE North project, East Anglia THREE, Galloper, Greater Gabbard, Sizewell B and Sizewell C. These projects are also considered cumulatively (where relevant) in the offshore chapters of the ES (**Chapters 7 – 16** and **Chapter 28**)
51. Sizewell C is considered in the cumulative impact assessment for the onshore chapters of the ES (**Chapters 18 to 30**) where possible. The cumulative impact

assessments presented in this ES are based on the best available information regarding Sizewell C New Nuclear Power Station at the time of writing (June 2019).

52. Subsequent to agreeing the CIA approach, EDF Energy have embarked upon a Stage 4 consultation exercise scheduled to run from 18th July to 27th September 2019. The Stage 4 consultation document contains further information on an updated freight management strategy but does not contain sufficient information to facilitate a quantitative assessment for **ES Chapters 19 Air Quality, 25 Noise and Vibration** and **26 Traffic and Transport**.
53. Recognising that Stage 3 information released by EDF Energy is now out of date, a quantitative CIA cannot be provided at this stage as it would be based upon out of date and incorrect information. Therefore, the CIA presented the above chapters are qualitative, examining the potential for cumulative impacts.
54. Other projects listed in **Table 3.1** were not taken forward to cumulative impact assessment due to their small scale and negligible impacts. These are classed as 'minor' developments by Suffolk County Council and are highly unlikely to significantly interact with the proposed East Anglia TWO project, based on their small scale and nature.

3.3 Site Selection

55. The site selection and consideration of alternatives has been a sequential process of developing an understanding of the area and refining the location options. The following approach to site selection has also allowed the findings of the environmental assessments to guide the evolution of the proposed East Anglia TWO project design, and has allowed the plans for the onshore development area to be modified to avoid, reduce or mitigate the potentially adverse impacts as far as practicable.
56. **ES Chapter 4 Site Selection and Assessment of Alternatives** details the relevant stages of this process in more detail.
57. The location of the East Anglia TWO windfarm site was identified using a three-stage process:
 - Initial zone selection and creation of the East Anglia Zone as described earlier in section 2 'Background and Context for Development'; and
 - Zone Appraisal and Planning (ZAP); and
 - The ZAP process for the former East Anglia Zone comprised two key elements:

- Zone Technical Appraisal (ZTA) focusing on the key physical characteristics of the former East Anglia Zone e.g. water depth and sea bed geology; and
- Zone Environmental Appraisal (ZEA) focusing on key environmental, social and economic characteristics of the former East Anglia Zone.
- The ZAP Process was based upon a number of site specific surveys and desk-based assessments of publicly available and historical data. The key constraints considered in the ZEA and ZTA were:
 - Civil and military radar coverage and helicopter main routes;
 - Infrastructure;
 - Benthic habitats (including those listed in Annex I of the Habitats Directive);
 - Seascape and visual amenity;
 - Commercial and natural fisheries activity;
 - Ornithology;
 - Conservation designations;
 - Shipping and navigation;
 - Marine archaeology;
 - Physical processes; and
 - Underwater noise.
- The ZAP Process also considered the following hard constraints to development within the former East Anglia Zone which were deemed to make the area unsuitable for wind turbines:
 - Oil and gas platforms and pipelines;
 - Active subsea cables;
 - International Maritime Organisation Deep Water Routes; and
 - Naval Maritime graves.
- From the review of the initial baseline data, 11 potential Development Areas were identified as the least constrained parts of the former East Anglia Zone. These areas were further assessed by EAOW in order to identify a smaller number of preferred development areas.
- Site specific selection.
 - The ZAP process identified the East Anglia TWO broad area as being an area with a relatively low number of development constraints, both technical and environmental.
 - The ZAP process did not highlight any major constraints within the East Anglia TWO windfarm site that would prevent development. As such this site was chosen by SPR to be taken through the consenting process.

58. Possible landfall locations were identified between Sizewell A (Sizewell Beach) and Thorpeness, and an engineering feasibility study was commissioned to review the landfall options. The study showed that the coastline's main uncertainty is in terms of longer change in coastal processes, and the Applicant has taken a conservative precautionary approach and committed to setting back the landfall transition bays to the potential 100-year erosion prediction line. The landfall refined area of search is a small section of the Suffolk coastline north of Thorpeness.
59. Several potential offshore cable routeing options between the East Anglia TWO windfarm site and landfall location were identified, and an assessment was undertaken to better understand the risks associated with each of these routeing options. The selected cable route was the preferred choice in terms of both engineering and environmental constraints, in particular in avoiding the geological Coralline Crag sea bed feature. This resulted in the identification of two potential offshore cable routeing options for the East Anglia TWO windfarm site, which allowed for connection either to north (northern route) or south (southern route), with both routes having a common landfall and approach to landfall.
60. The location of the East Anglia TWO onshore substations was initiated by the offer given to SPR by National Grid for a grid connection in the vicinity of Sizewell and Leiston. The initial onshore study area encompassed an area within a 1km buffer of the overhead line route into Sizewell. Within the onshore study area, seven zones were identified as potential substation sites, based on available space to accommodate the required project. 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 against criteria agreed with statutory consultees. These comprised archaeology/heritage, ecology, landscape, hydrology and hydrogeology, engineering, community, landscape and visual, property and planning. Further work was then undertaken to consider the higher scoring sites and the mitigation options available.
61. The culmination of these workstreams (i.e. the RAG followed by detailed technical studies) allowed the Applicant to decide that the substation zone northwest of Friston was the preferred zone. Further work was then undertaken to determine the arrangement of the onshore substation and National Grid infrastructure (to be consented as part of the proposed East Anglia TWO project) within this chosen zone in order to mitigate potential impacts, particularly landscape and visual.

3.3.1 Phase 3.5 Consultation and Consideration of Broom Covert, Sizewell

62. A phase of pre-application consultation was undertaken in response to local planning authority non-statutory responses from the phase 3 consultation to further consider a potential substation site on the EDF Energy estate. This consultation phase ran from September to November 2018 to consider an alternative site at Broom Covert, Sizewell.
63. The Broom Covert, Sizewell land is located within the Suffolk Coast and Heaths AONB, and is currently being used as a site to translocate protected wildlife in preparation for the Sizewell C New Nuclear Power Station development. EDF Energy has been working closely in recent years with Suffolk Wildlife Trust and Natural England to establish this agreed ecological mitigation area.
64. Consultation Phase 3.5 enabled the Applicant to engage with local communities and consultees on the opportunity to consider this alternative substation site at Broom Covert, Sizewell (Zone 8) in parallel with our proposals for a substation site at Grove Wood, Friston (Zone 7). In addition, this phase of consultation was used to communicate additional information on the Grove Wood, Friston site, particularly regarding additional information from National Grid on connection to the electrical transmission network, likely HGV transport routes on the local road network work and proposals for Sustainable Drainage System (SuDS) ponds to facilitate substation drainage works.
65. As part of the Phase 3.5 consultation, a proposed substation(s) site arrangement was prepared to enable a comparison between the two substation sites (see **section 4.9.1.6** of ES **Chapter 4 Site Selection and Assessment of Alternatives**). Extensive discussions with EDF Energy on the availability and deliverability of the Broom Covert, Sizewell site were also undertaken.
66. As a responsible developer, the Applicant takes a balanced view towards site selection at all times, using its industry leading legal advisors who draw on national planning guidance and industry leading technical advisors, in addition to its own project experience, notably in the successful development of East Anglia ONE and East Anglia THREE Offshore Wind projects.
67. The Applicant received over 600 responses to Phase 3.5 consultation from members of the public, local interest groups and statutory stakeholders. Feedback was received in relation to the Grove Wood, Friston, site and the Broom Covert, Sizewell site. This consultation for the Broom Covert site highlighted concerns regarding the likely impacts of the proposed onshore substations on the Suffolk Coast and Heaths AONB, and therefore compliance with National Policy.

68. NPS EN-1 sets out the criteria to be applied to determine whether ‘exceptional circumstances’ can be demonstrated to justify major development within the AONB. It is the Applicant’s view that a feasible alternative site for the substation has been identified outside of the AONB, at Grove Wood, Friston, therefore such exceptional circumstances do not apply.

3.3.2 Onshore Substations Site Comparison

69. In order to further assess the Grove Wood, Friston and Broom Covert, Sizewell substation sites, the Applicant undertook a consideration of land requirements; critical path programme; key policy; design/construction; operations; and commercial viability/cost in parallel with the phase 3.5 consultation. The Applicant’s project experience and knowledge of the sites has been applied in reaching judgements on each of these criteria in order to ensure balanced, robust and transparent conclusions are reached based on the above considerations.

70. Significant differences between the two substation sites:

- 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. Siting in the Broom Covert, Sizewell site is likely to result in significant effects on some of the special qualities of the AONB. 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.
- 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).
- Additional costs incurred in laying an additional 6km cable length to Grove Wood, Friston.

71. It is the Applicant’s position, based on extensive advice and this further stakeholder engagement that the Grove Wood, Friston site offers, on balance, the most appropriate option for substation development. This position is based on policy guidance presented within NPS EN-1.

72. Consultation responses to the preliminary environmental information report in April 2019, formed the basis of further project design refinement and micro-siting associated with the offshore infrastructure, landfall, onshore cable route, onshore substation and National Grid infrastructure; and associated public highway accesses, offsite highway improvement works, landscape bunding, landscape planting, siting of Construction Consolidation Sites (CCS), etc. This refinement led to the final onshore development area presented within the ES.

3.4 Evolution and Design of the Project

73. Following the section 42 consultation on the preliminary environmental information report (PEIR), a review of consultation feedback and additional data and information available was undertaken, including:
- Community and landowner feedback;
 - Ecological designations and recreational assets;
 - Results from the priority programme of archaeological geophysical survey;
 - National Grid infrastructure design work;
 - Substation drainage proposals;
 - Landscaping design proposals; and
 - Project design parameters and programme refinements.
74. This information has helped to refine the project design further (for details see ES **Chapter 4 Site Selection and Assessment of Alternatives**). In particular, following feedback to the PEIR, the Applicant investigated the potential to refine the proposed East Anglia TWO windfarm site area to reduce the magnitude of effect on onshore receptors. The revised design represents a reduction in the northern geographic extent of the windfarm site, whilst maintaining its generation capacity. The change resulted in:
- Reduced lateral spread of the proposed East Anglia TWO windfarm site;
 - Reduced effects due to more concentrated grouping of wind turbines than the 'spread-out' and more varied spacing of the PEIR layout;
 - Increased offshore distance of the windfarm site for onshore receptors; and
 - Reduced cumulative landscape and visual effects on the Suffolk Coast and Heaths AONB due to increase in open sea horizon between the proposed East Anglia TWO and East Anglia ONE North windfarm sites (see **section 28.3.3** of ES **Chapter 28 Seascape, Landscape and Visual Impact Assessment** for further details).

3.5 Project Description

75. The offshore development area of the proposed East Anglia TWO project comprises of:
- Wind turbines;
 - Offshore platforms (electrical and construction, operation and maintenance platforms); and
 - Subsea cables (including inter-array cables connecting the wind turbines and platforms, platform link cables connecting offshore platforms, and export cables taking energy to shore).
76. The proposed East Anglia TWO project will also require onshore infrastructure in order to transmit and connect the offshore windfarm to the National Grid, which in summary would comprise:
- Landfall location at Thorpeness, where the offshore cables are brought ashore and jointed to the onshore cables;
 - Underground cables;
 - An onshore substation; and
 - A National Grid substation and National Grid overhead line realignment works.
77. **Plate 3:1** illustrates some of the key components (not exhaustive) of the proposed East Anglia TWO project.

East Anglia TWO Offshore Windfarm Development Consent and Planning Statement

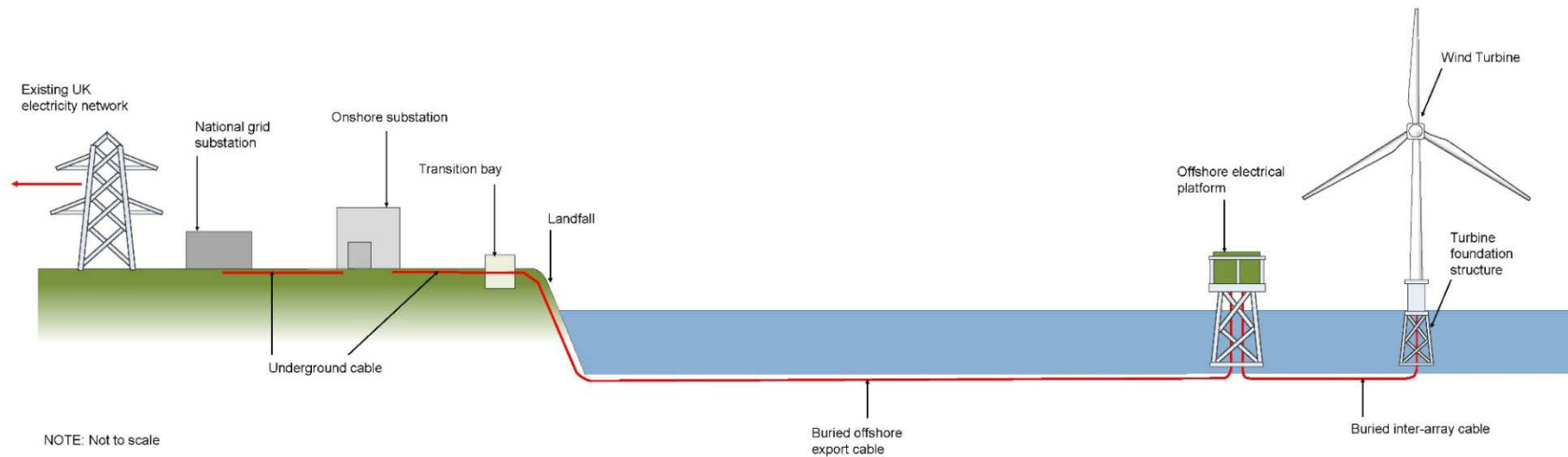


Plate 3:1 Key components of the proposed East Anglia TWO project

78. For the purposes of the assessment within the EIA, the construction of the onshore infrastructure is assessed as taking approximately two and half years, with a construction period of approximately four years for the National Grid infrastructure (commencement dependent on securing the necessary circuit outages).
79. Construction activities would normally be conducted during weekday working hours of 7am to 7pm, and Saturday working hours of 7am to 1pm. No works are scheduled for Sunday or Bank Holidays. Outside of these hours, construction work may be undertaken for certain essential activities such as continuous operations, delivery of abnormal loads, testing or commissioning activities and other activities approved by the local planning authority as described in Schedule 1, Part 3, Requirements 23 and 24 of the draft DCO.

3.5.1 Offshore Works

80. The proposed East Anglia TWO project would consist of up to 75 wind turbines. The wind turbines would consist of a tower, nacelle, hub and blades.
81. When installed, the largest of the turbines under consideration would have a maximum blade tip height of 300 metres (m) above sea level (an example of which is shown in **Plate 3:2** below). A diagram representing the internal working structure of a wind turbine hub is displayed in **Plate 3:3** below.
82. Within the East Anglia TWO windfarm site there would also be up to four offshore electrical platforms (an example of which is shown in **Plate 3:4**) as well as a meteorological mast and a construction, operation and maintenance platform. An example image (taken from West of Duddon Sands offshore windfarm) of construction of a wind turbine is shown in **Plate 3:5**.

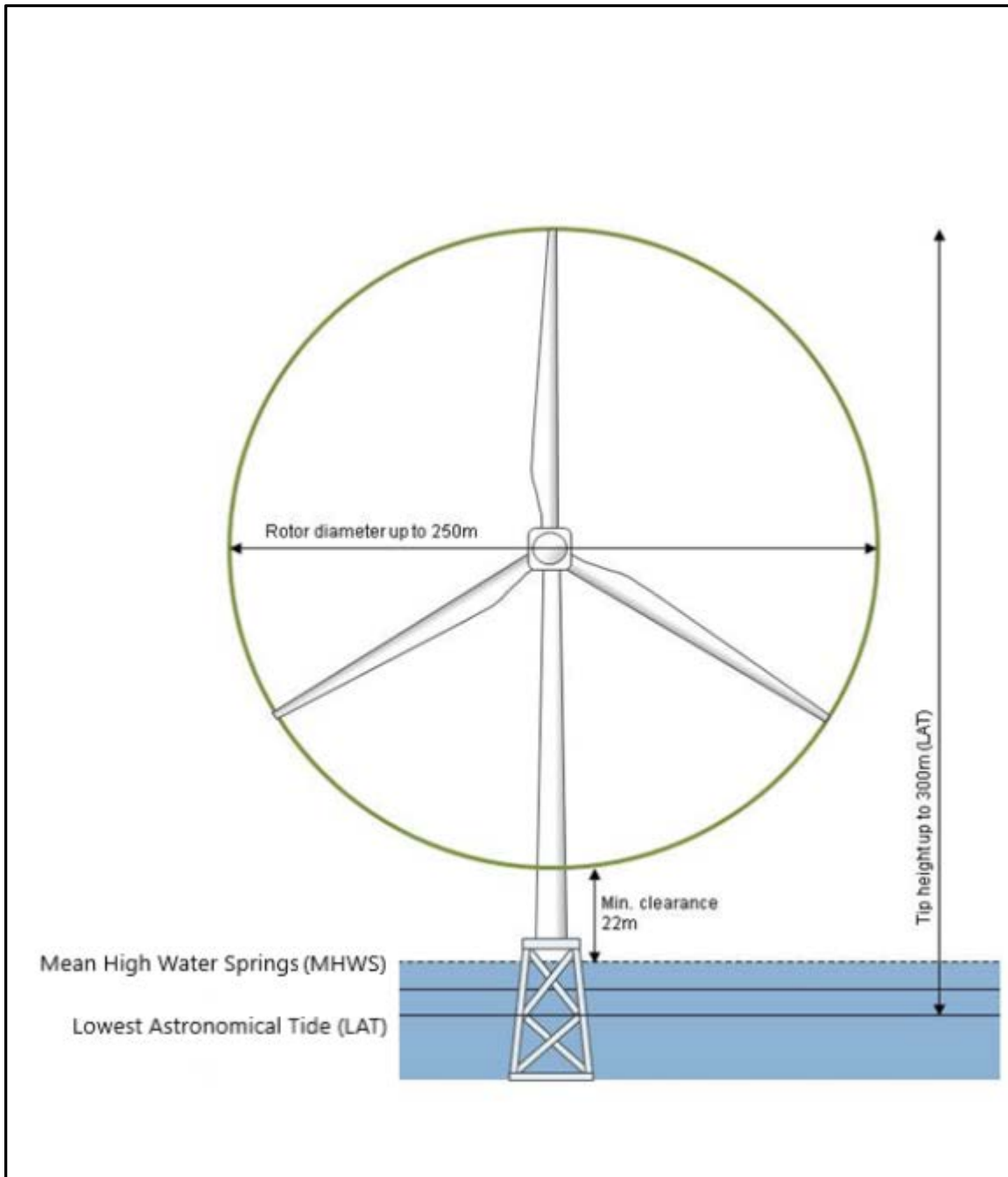


Plate 3:2 Example of a wind turbine to be used in the East Anglia TWO windfarm site

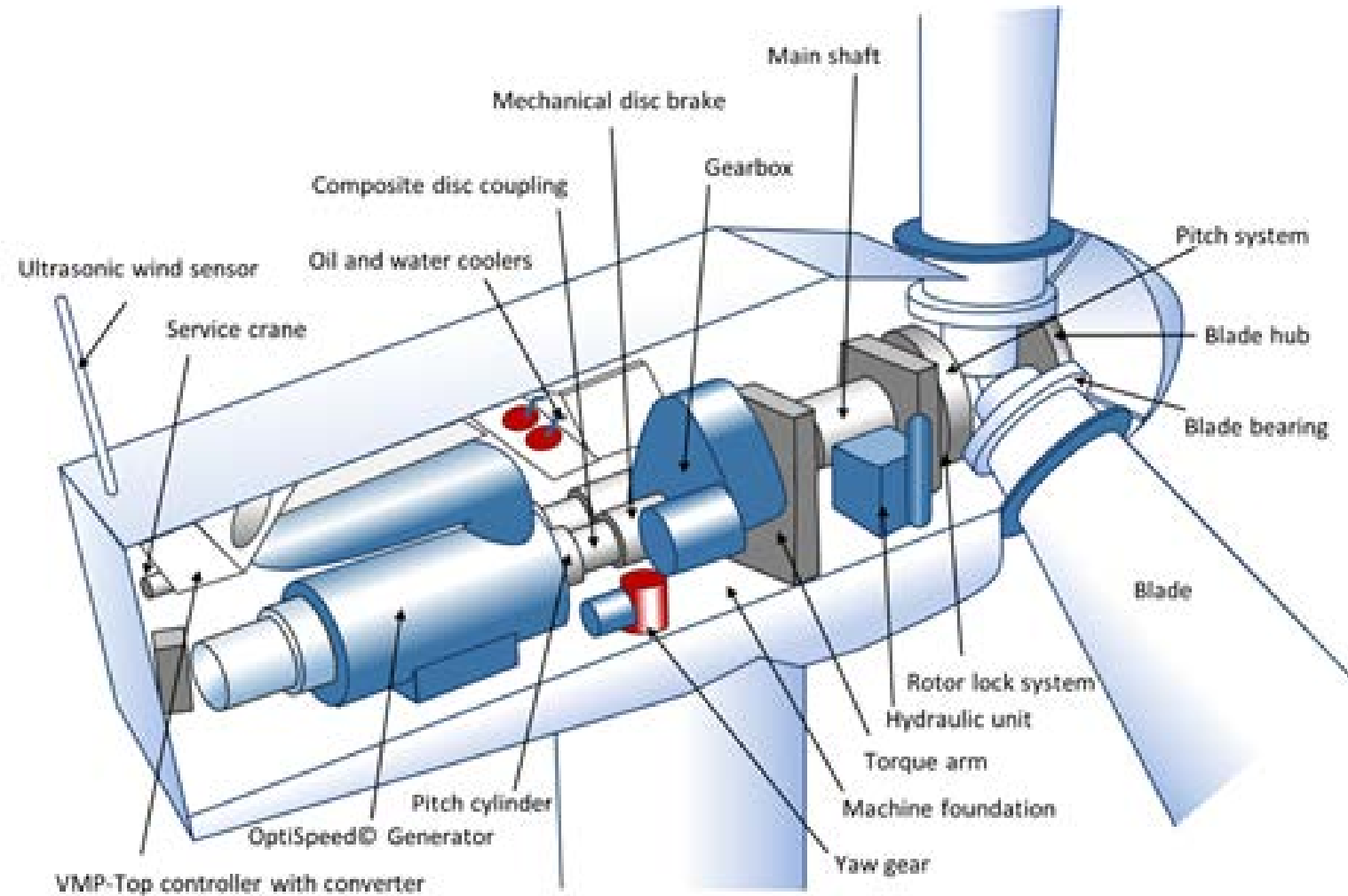


Plate 3:3 General Internal Structure of a Wind Turbine Hub



Plate 3:4 Offshore Electrical Platform



Plate 3:5 Wind Turbine under Construction (photo taken from West of Duddon Sands offshore windfarm)

83. The turbines will be connected to the offshore electrical platforms. The electrical platforms will collect the energy, increase the voltage and then transmit it along the offshore export cables that will be used to transmit the electricity to shore.
84. All offshore export cables would be buried where possible, or cable protection would be installed to ensure the cables are not damaged.
85. **Table 3.2** details the key offshore parameters of the proposed East Anglia TWO project.

Table 3.2 East Anglia TWO Key Offshore Parameters

Parameter	Specification
Number of wind turbines	75
East Anglia TWO windfarm site area	218km ²
East Anglia TWO windfarm site water depth range	33 - 67m
Distance from East Anglia TWO windfarm site to shore (closest point of site to Southwold)	33km
Maximum offshore cable corridor area	194km ²
Maximum number of export cables	Two

Parameter	Specification
Maximum cable lengths	Inter-array: 200km Platform link: 75km Export: 160km
Maximum wind turbine rotor diameter	250m
Maximum wind turbine hub height	175m
Maximum wind turbine tip height	300m
Minimum clearance above sea level	22m
Minimum separation between wind turbines (assumed for micro siting) ³	In-row spacing 800m
	Inter-row spacing 1200m
Maximum number of wind turbine models to be installed	Three
Wind turbine foundation type options	Jackets on piles or suction caissons, gravity base structures, suction caissons, monopiles
Number of met masts	One
Maximum height of met mast	175m
Met mast foundation type options	Jacket, gravity base structure, suction caisson, monopile
Number of offshore electrical platforms	Up to four
Number of construction, operation and maintenance platforms	Up to one

3.5.2 Onshore Works

86. **Table 3.3** shows the key onshore parameters of the proposed East Anglia TWO project.

Table 3.3 East Anglia TWO Key Onshore Parameters

Parameter	Specification
Landfall location	North of Thorpeness
Onshore cable route length (km) (approximately)	9
Maximum Onshore Cable Route Width (m)	32
Onshore substation compound footprint (ha)	3.61

³ Nominal spacing is likely to exceed this.

Parameter	Specification
Onshore substation maximum building height (m)	15
Onshore substation maximum height of external electrical equipment (m)	18
National Grid substation compound footprint - AIS (National Grid GIS substation (140m x 120m compound footprint) is an alternative option but is not considered the worst case for assessment)	140m x 325m (4.55ha)
National Grid substation maximum building height (m) – AIS (National Grid GIS substation (16m height) is an alternative option but is not considered the worst case for assessment)	13
National Grid substation maximum height of external electrical equipment (m)	16
Number of onshore cables	6
Number of fibre optic cables	2
Number of distributed temperature sensing cables	2
Lightning protection	Lightning protection will be required, using options including lightning rods, lightning masts and shield wires

3.5.2.1 Pre-construction

87. Prior to construction of the onshore works, the following pre-construction activities could take place:

- Erection of temporary site notices or advertisements;
- Erection of temporary means of enclosure;
- Topographic surveys (for engineering purposes);
- Ecological onshore preparation work (including, for instance, hedgerow removal or creation of mitigation badger setts);
- Site clearance;
- Environmental surveys;
- Archaeological investigations (further detail provided in the Outline Pre-Commencement Archaeology Execution Plan submitted with this DCO application);
- Diversion and laying of services;

- Drainage surveys;
- Geotechnical and ground stability surveys;
- Remedial work in respect of any existing ground contamination or other adverse ground conditions;
- Pre-planting of selected landscaping works;
- Public Right of Way footpath creation;
- Welfare facilities for onshore preparation works; and
- Pre-entry records and requirements for landowner condition records

3.5.2.2 Construction Consolidation Sites

88. Construction Consolidation Sites (CCSs) would be required along the onshore cable route. Preliminary studies have identified five possible locations for onshore cable route CCSs within the onshore development area. It is the intention that the CCSs would be to:

- Form the main point(s) of access onto the linear construction site;
- Provide the main areas for the storage of materials and equipment; and
- House site administration and welfare facilities for the labour resources.

3.5.2.3 Road Modifications

89. Road modifications could be required to facilitate the safe ingress and egress from the public highways to the onshore cable route or CCSs through construction accesses. Where possible the accesses make use of existing tracks to link between the public road network and the onshore cable route. There may be a requirement to upgrade some existing tracks to make them suitable. Where this is required it would be completed using a design which is suitable for construction traffic. The project will generally take possession of such land only temporarily, restoring it to its former state prior to the end of the period of possession.

90. Additionally, public highway modifications may be required at locations on the existing public road network in order to facilitate construction traffic and/or construction-related deliveries. The purpose of the modifications would be to allow larger vehicles than normal to access certain parts of the public road network. It is anticipated that the works would be concentrated at junctions.

91. Any modifications could potentially comprise:

- Structural works to accommodate Abnormal Indivisible Loads;
- Localised widening/creation of overrun areas;
- Temporary moving or socketing of street signs; and
- Temporary moving of street furniture.

92. With regard to the onshore cable corridor, temporary fences would be erected along the boundaries of the working width. Once the working width has been cleared of vegetation, the topsoil would be stripped. Subsoil would then be excavated to the required depth for each trench. This would follow the profile of the ground surface, but deeper excavations could be required at certain crossings.
93. A temporary haul road would be installed along the onshore cable route at suitable access points, between Snape Road and the landfall area (with the exception of the Leiston – Aldeburgh SSSI / Sandlings SPA crossing). The onshore cable route haul road between landfall and Snape Road would be approximately 4.5m wide, with passing places of 4m in width at approximately 87m intervals. The onshore cable route haul road between the landfall and Snape Road would be up to a maximum of 8.5m at these passing place locations. This is illustrated in **Plate 3:6**.

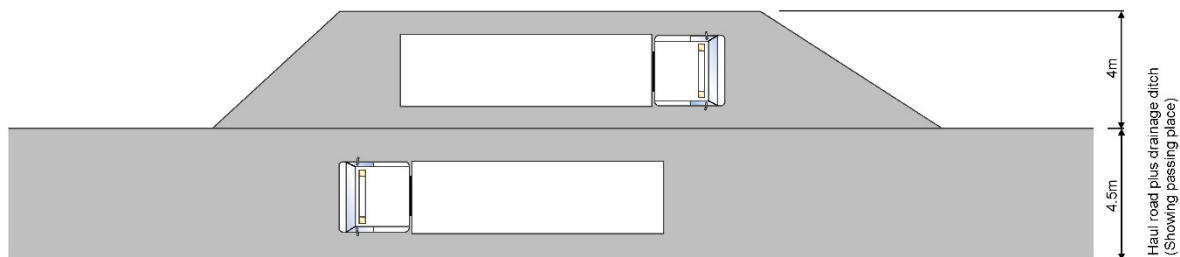


Plate 3:6 Cable route haul road schematic

94. A temporary haul road would also be installed along the onshore cable route between Snape Road and the onshore substations location. This would facilitate access to the installation of the onshore cable route as well as for heavy goods vehicles (HGVs) construction traffic to access the onshore substation and National Grid substation during the construction phase. The onshore cable route and substations access haul road between Snape Road and the onshore substations location would be approximately 9m in width.
95. Temporary construction access roads (similar to the haul roads) would also be installed to provide access from the public highway to onshore cable route CCSs, the onshore cable route haul road and the onshore cable route and substations access haul road. The temporary construction access roads would be approximately 4.5m wide with passing places of 4m in width at approximately 87m intervals. The temporary construction access roads would be up to a

maximum of 8.5m at these passing place locations, and would be restored prior to the end of their period of temporary possession or use.

3.5.2.4 Landfall and Onshore Cable Route Construction

96. At the landfall to the north of Thorpeness, HDD operations will be needed to install the ducts required which will avoid any need for construction works on the beach. Once the ducts are in place, the offshore cables would be pulled through the ducts and connected to the onshore cables.
97. 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 HDD ducts would be buried under the sea bed beyond the intertidal zone (see **Plate 3:7**).

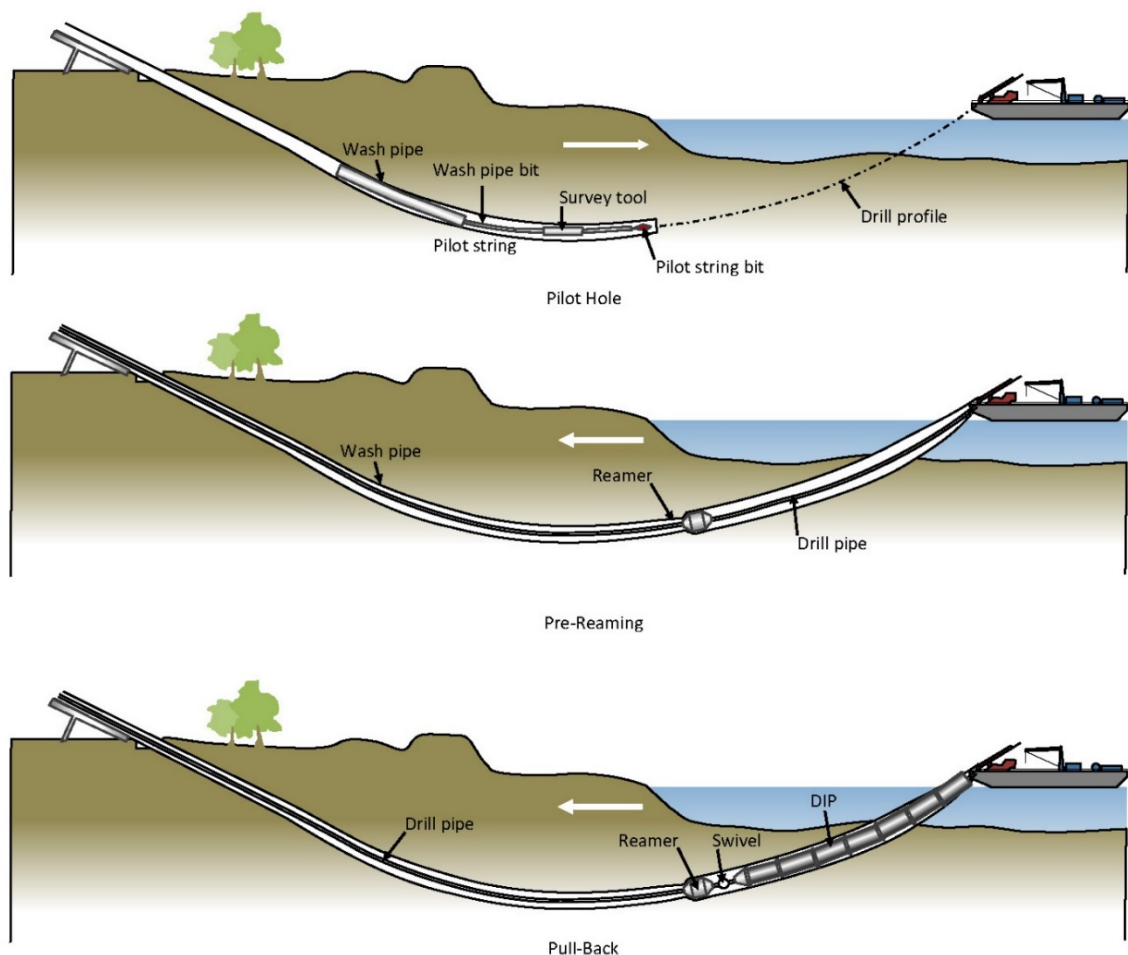


Plate 3:7 HDD working method at landfall

98. Onshore cables will be buried, either within ducts or placed directly underground without ducting, with no above ground infrastructure left after construction. The indicative working area for the onshore cables is illustrated in **Plate 3:8**.

99. For most of the onshore cable route, trenches will be excavated to place the ducts in (using a tracked excavator or similar), with cables pulled through later in the programme or laid directly, with jointing bays at intervals within which cables can be joined. At certain locations where specific features need to be crossed/avoided, such as roads, designated sites of conservation importance, trenchless techniques (for example HDD or auger bore) may be used to install the ducts beneath features to minimise environmental impacts and disruption. For example, HDD may be used to cross the Sandlings Special Protection Area (SPA) (and Leiston – Aldeburgh SSSI) to mitigate the impact on the designated site. The assessments undertaken cover the option to trench across the Sandlings SPA (and Leiston – Aldeburgh SSSI).

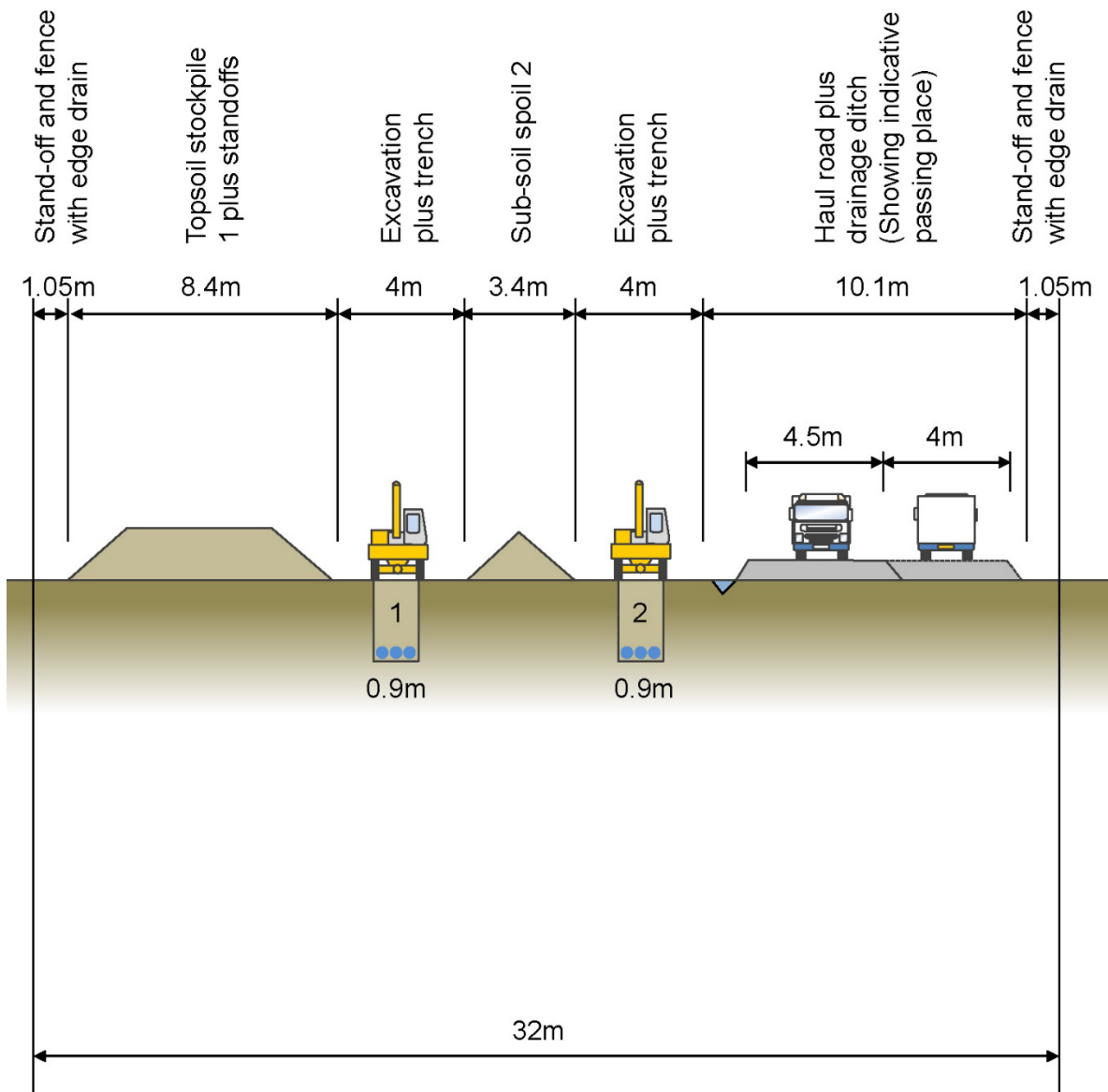


Plate 3:8 Indicative cable trenching arrangement and working area for typical onshore cable route width

3.5.2.5 Onshore substation

100. An onshore substation will be required to convert the electricity produced by the offshore windfarm into a format that can be accepted by the National Grid. The proposed East Anglia TWO project onshore substation will have a maximum building height of 15m and external electrical equipment up to 18m in height and will cover an area of land of up to 36,100m² (190m x 190m). A schematic of the onshore substation is illustrated in **Plate 3:9**.

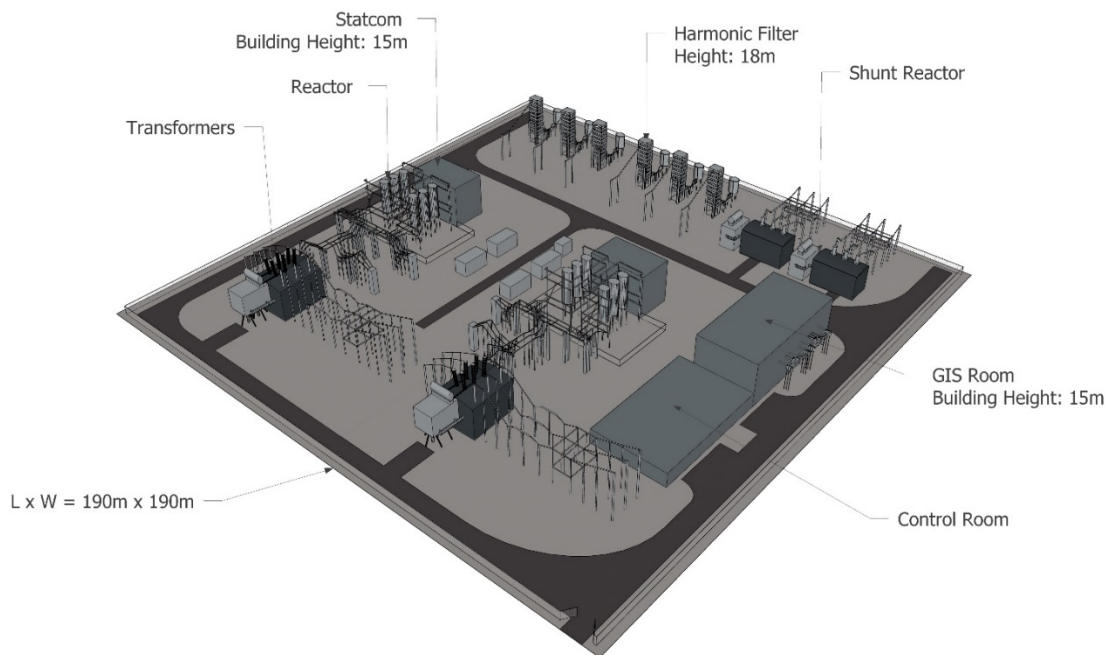


Plate 3:9 East Anglia TWO Indicative Onshore Substation Model

3.5.2.6 National Grid Infrastructure

101. In order to accommodate the electricity produced by the proposed East Anglia TWO project, there is the requirement for the construction of a new National Grid substation. Currently, a National Grid Air Insulated Switchgear (AIS) or Gas Insulated Switchgear (GIS) substation are proposed options. National Grid GIS substation is not considered the worst case for the PEIR assessments.
102. The National Grid substation would be located within a single compound, with two potential substation arrangements – AIS or GIS. The maximum footprint dimensions of a National Grid AIS substation are up to a maximum of 140m x 325m, with a maximum building height of 13m. The maximum footprint dimensions of a National Grid GIS substation are up to a maximum of 140m x 120m, with a maximum building height of 16m.
103. One additional overhead line pylon, as well as up to four cable sealing ends will be required to accommodate the proposed East Anglia TWO and East Anglia ONE North projects. Other overhead line pylons in the vicinity of the National Grid

substation within the National Grid Overhead Line Realignment Works Area may be subject to replacement or upgrade works to facilitate the connection to the network.

3.5.2.7 Landscaping

104. Landscaping and tree planting schemes will be carefully designed to reduce visual impacts of the infrastructure at the onshore substation and the National Grid substation (see **Plate 3:10** for the proposed planting plan that provides an illustration of areas for landscape mitigation). Disturbed ground associated with the onshore construction will be reinstated following construction as far as possible.
105. Full details of the proposed landscaping are provided in the Outline Landscape and Ecological Management Strategy (OLEMS) submitted with the DCO application (document reference 8.7).



	5	03/06/2019	mb	Fifth Issue			1:2,500		East Anglia TWO OLMP Proposed Planting Plan	Doc Ref	EA2-DEV-ENV-REP-RR-CL-EM5		
	4	23/05/2019	mb	Fourth Issue	Prepared:	mb	Scale @ A1			Rev	5	Coordinate System:	BNG
	3	03/05/2019	mb	Third Issue	Checked:	sm				Date	03/06/19	Datum:	OSGB36
	Rev	Date	By	Comment	Approved:	ll				Figure	6		
	<small>This plan has been prepared for the highest level of detail of the site of the work, and has been produced for your information only. It does not constitute a contract. It should be used in conjunction with the relevant contract documents. The contractor shall be responsible for the interpretation and implementation of the plan. Any changes to the plan shall be the responsibility of the contractor. The contractor shall be responsible for the interpretation and implementation of the plan. Any changes to the plan shall be the responsibility of the contractor.</small>												

Plate 3:10 East Anglia TWO Proposed Planting Plan (taken from the Outline Landscape and Ecological Management Strategy (document reference 8.7))

4 Legal and Policy Context

106. The principle legislation and policy of relevance to the application is set out below.

4.1 Legislation

4.1.1 The Planning Act 2008 (PA2008) as amended

107. PA2008 is the primary legislation that established the legal framework for applying for, examining, and determining applications for defined categories of NSIPs.

108. NSIPs are usually large-scale developments such as new ports, airports, major road and rail schemes or power generating stations. NSIPs are consented through the making of a DCO, by the relevant Secretary of State, in parliament. PA2008 sets out thresholds above which certain types of infrastructure development are considered to be nationally significant and require a DCO. For offshore generating station developments in waters in or adjacent to England/within the UK Renewable Energy Zone, the NSIP threshold is a generating capacity of over 100MW.

109. Since the project comprises two NSIPs, an offshore generating station (of over 100MW generating capacity) and the installation of an electric line above ground, it is a project for which a NPS, as defined by PA2008, has effect. S104 of PA2008 makes clear that such projects must be determined in accordance with any relevant NPS, unless certain specified exceptions apply:

“104 Decisions in cases where national policy statement has effect

....

(3) The [Secretary of State] must decide the application in accordance with any relevant national policy statement, except to the extent that one or more of subsections (4) to (8) applies.

(4) This subsection applies if the [Secretary of State] is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the United Kingdom being in breach of any of its international obligations.

(5) This subsection applies if the [Secretary of State is] satisfied that deciding the application in accordance with any relevant national policy statement would lead to the [Secretary of State being in breach of any duty imposed on the Secretary of State] by or under any enactment.

(6) This subsection applies if the [Secretary of State] is satisfied that deciding the application in accordance with any relevant national policy statement would be unlawful by virtue of any enactment.

(7) This subsection applies if the [Secretary of State] is satisfied that the adverse impact of the proposed development would outweigh its benefits.

(8) This subsection applies if the [Secretary of State] is satisfied that any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met.

(9) For the avoidance of doubt, the fact that any relevant national policy statement identifies a location as suitable (or potentially suitable) for a particular description of development does not prevent one or more of subsections (4) to (8) from applying.”

110. PA2008 in S104 also makes clear that in doing so the Secretary of State must take into account any relevant NPS, the appropriate Marine Policy Statement (MPS), any Local Impact Report, any matters prescribed in relation to the development and any matters the Secretary of State considers important and relevant.
111. The key test is therefore to assess on balance, whether the application is in accordance with the relevant NPSs unless certain specified exceptions apply. This may include considering whether the policies set out in the NPSs for delivery of renewable energy are outweighed by any adverse impacts that have been identified. The presumption is in favour of applications which accord with any relevant NPSs.

4.1.2 Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

112. EIA is a tool for examining and assessing the potential impacts of a development on the physical, biological and human environment. This process allows management and mitigation measures to be identified to improve the environmental design of a project.
113. EIA was introduced under the European Union (EU) EIA Directive 85/337/EEC. The EIA Directive was amended a number of times and most recently codified by EIA Directive 2011/92/EU and then amended by EU Directive 2014/52/EU. The EU Directive (including the requirements of Directive 2014/52/EU) is transposed for NSIPs into UK law by The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations 2017).

4.1.3 The Infrastructure Planning (Decisions) Regulations 2010

114. These regulations place duties on the Secretary of State as decision maker in relation to any DCO application:
- Which affects a listed building or its setting, a conservation area or a scheduled ancient monument or its setting, in which case the decision maker

must have regard to the desirability of preserving the listed building or its setting/conservation area/scheduled ancient monument (Regulation 3), this legal test therefore differing from the “special regard” test contained in the Planning (Listed Buildings and Conservation Areas) Act 1991 (policy considerations in relation to listed buildings are considered further in the relevant national policy statements);

- Which would consent a provision deeming a licence under Part 4 (Deposits in the Sea) of the Marine and Coastal Access Act 2009 (Regulation 3A);
- Which would involve the presence of hazardous substances (Regulation 6), and
- Including a duty that he or she “must have regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992 (Regulation 7).

4.1.4 The Climate Change Act 2008 and The Climate Change Act 2008 (2050 Target Amendment) Order 2019

115. The Act made it the duty of the Secretary of State to ensure that the net UK carbon account for all six Kyoto greenhouse gases for the year 2050 is at least 80% lower than the 1990 baseline, toward avoiding dangerous climate change. The aim of the Act was to enable the United Kingdom to become a low carbon economy. It gave Ministers powers to introduce the measures necessary to achieve a range of greenhouse gas reduction targets.
116. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets. The protocol places a heavier burden on developed nations under the principle of “*common but differentiated responsibilities*”.
117. The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005. The detailed rules for the implementation of the Protocol were adopted at COP 7 in Marrakesh, Morocco, in 2001, and are referred to as the “Marrakesh Accords”. Its first commitment period started in 2008 and ended in 2012. In Doha, Qatar, on 8 December 2012, the “Doha Amendment to the Kyoto Protocol” was adopted.
118. The Climate Change Act 2008 (2050 Target Amendment) Order 2019 had the effect that the minimum percentage by which the net UK carbon account for the year 2050 must be lower than the 1990 baseline, is increased from 80% to 100%.

4.1.5 The National Parks and Access to the Countryside Act 1949 and The Countryside and Rights of Way Act 2000

119. The National Parks and Access to the Countryside Act 1949 provides the framework for the establishment of National Parks and AONBs. It also establishes powers to declare National Nature Reserves, to notify “areas of special scientific interest” and, for local authorities, to establish Local Nature Reserves.
120. The Countryside and Rights of Way Act 2000 brought in new measures to further protect AONBs, with new duties for the boards set up to look after them. These included meeting the demands of recreation, without compromising the original reasons for designation, and safeguarding rural industries and local communities.
121. The role of local authorities was clarified, to include the preparation of management plans to set out how they will manage the AONB asset. There was also a new duty for all public bodies to have regard to the purposes of AONBs. PA2008 also brought in improved provisions for the protection and management of SSSIs.
122. The Countryside and Rights of Way Act (2000) confers a duty on any relevant authority, which includes the Secretary of State in the context of this DCO application. Section 85 states:
123. *“In exercising or performing any functions in relation to, or so as to affect, land in an Area of Outstanding Natural Beauty, a relevant authority shall have regard to the purpose of conserving and enhancing the natural beauty of the Area of Outstanding Natural Beauty”.*

4.1.6 The Wildlife and Countryside Act 1981 (as amended) and the Natural Environment and Rural Communities Act 2006

124. The Wildlife and Countryside Act 1981 is the primary legislation which protects animals, plants, and certain habitats in the UK. PA2008 provides for the notification and confirmation of SSSIs.
125. The Natural Environment and Rural Communities Act made provision for bodies concerned with the natural environment and rural communities, in connection with wildlife sites, SSSIs, National Parks and the Broads. It includes a duty that every public body must, in exercising its functions, have regard so far as is consistent with the proper exercising of those functions, to the purpose of biodiversity. In complying with this duty, Ministers of the Crown, government departments and the Welsh Government must have regard to the United Nations Environment Programme Convention on Biological Diversity of 1992.

4.1.7 Marine and Coastal Access Act 2009

126. The Marine and Coastal Access Act (MCAA 2009) introduced a new system of marine management. This includes a marine planning system, which makes provision for a statement of the Government's general policies, and the general policies of each of the devolved administrations, for the marine environment, and also for marine plans which set out in more detail what is to happen in the different parts of the areas to which they relate. MCAA 2009 includes provision changing the system for licensing activities in the marine environment. It also provides for the designation of marine conservation zones. It changes the way marine fisheries are managed at a national and a local level and modifies the way licensing, conservation and fisheries rules are enforced. It allows for designation of an Exclusive Economic Zone for the UK, and for the creation of a Welsh Zone in the sea adjacent to Wales. MCAA 2009 also amends the system for managing migratory and freshwater fish and enables recreational access to the English and Welsh coast.

4.1.8 Marine Strategy Regulations 2010

127. The Marine Strategy Regulations transposed into UK law, the European Marine Strategy Framework Directive (MSFD). The MSFD forms the environmental pillar of the Integrated European Marine Policy, which aims to provide a coherent legislative framework for the joined-up governance of the marine environment. It sets a primary aim of achieving 'good environmental status' of European seas by 2020.

128. Key requirements of the legislation are the: 'establishment of a monitoring programme to measure progress toward Good Environmental Status (as defined by 11 high level descriptors) by July 2014 and; establishment of a programme of measures for achieving Good Environmental Status by 2016'.

4.1.9 Air Quality Standards Regulations 2010

129. The Air Quality Standards Regulations give statutory effect to the European Air Quality Directive (Council Directive 2008/50/EU). They impose duties on the Secretary of State, amongst other things, to ensure that legal limits of certain pollutants are not exceeded.

4.1.10 Environmental Permitting (England and Wales) Regulations 2016

130. These regulations give statutory effect to the European Industrial Emissions Directive (Council Directive 2010/75/EU). They control activities such as waste operations, mining, waste discharge, ground water and other operations.

4.1.11 The Conservation of Habitats and Species Regulations 2017

131. These regulations give statutory effect to the European Habitats (92/43/EEC) and Wild Birds (2009/147/EC) Directives in the onshore environment and offshore environment out to 12 nautical miles.

132. The Habitats Directive (together with the Council Directive 79/409/EEC on the conservation of wild birds (Wild Birds Directive) (Birds Directive)) forms the cornerstone of Europe's nature conservation policy. It is built around two pillars: the Natura 2000 network of protected sites and the strict system of species protection.
133. The regulations establish a process through which appropriate assessment of relevant projects may be necessary, if there is a likely significant effect on a European site for the conservation of nature by that project.

4.1.12 The Conservation of Offshore Marine Habitats and Species Regulations 2017

134. These regulations give statutory effect to the Habitats Directive and the Birds Directive. These regulations apply to the UK's offshore marine area which covers waters beyond 12nm within British Fishery Limits and to the seabed within the UK Continental Shelf Designated Area.
135. The Offshore Habitats Regulations fulfil the UK's duty to comply with European law beyond inshore waters, and ensure that activities regulated by the UK that have an effect on important species and habitats in the offshore marine environment can be managed. Under the Regulations, any competent authority has a general duty, in the exercise of any of their functions, to have regard to the duties originally defined in the Habitats and Birds Directives.
136. The 2017 Regulations consolidate the 2007 Regulations. The 2017 Regulations also make amendments to the 2007 Regulations in relation to the transfer of certain executive powers to the Welsh Ministers in the Welsh offshore region.

4.1.13 The Promotion of the Use of Energy from Renewable Sources Regulations 2011

137. These regulations give statutory effect to the European Renewable Energy Directive 2009/28/EC. The Renewable Energy Directive sets out legally binding targets for Member States with the expectation that by the year 2020, 20% of the European Union's energy mix and 10% of transport energy will be generated from renewable energy sources. The UK's contribution to the 2020 target is that by then, 15% of energy will be from renewable sources. The UK Renewable Energy Strategy 2009 (Renewable Energy Strategy) sets out how the UK proposes to meet the targets.

4.1.14 Transboundary Effects

138. Regulation 32 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (EIA Regulations) transposes Article 7 of EU Directive 85/337/EEC (as amended) into UK Law as it applies to the PA2008 regime. If the decision maker is of the view that a proposed development is likely to have

significant effects on the environment in another European Economic Area (EEA) State, that state must be consulted about the application.

4.1.15 United Nations Environment Programme Convention on Biological Diversity 1992

139. This convention is given statutory effect by Regulation 7 of the Infrastructure Planning (Decisions) Regulations 2010. This proves that the Secretary of State must have regard to this Convention, and in particular to Article 14 in its consideration of the likely impacts of the proposed development and appropriate objectives and mechanisms for mitigation and compensation. The UK Government ratified the Convention in June 1994. Responsibility for the UK contribution to the Convention lies with the Department for Environment, Food and Rural Affairs who promote the integration of biodiversity into policies, projects and programmes within Government and beyond.

4.1.16 Regulations Related to European Directives

140. The European Union (Withdrawal) Act 2018 provides for the position in the event of the UK leaving the EU in which existing Regulations would remain unless specifically changed. All relevant legislation above therefore remains in force.

4.1.17 Community Infrastructure Levy Regulations 2010

141. The Community Infrastructure Levy Regulations 2010 are not generally relevant to the examination of the application for this project. However, this is with the exception of CIL Regulation 122, which states:

“Limitation on use of planning obligations

(1) This regulation applies where a relevant determination is made which results in planning permission being granted for development.

(2) Subject to paragraph (2A), a planning obligation may only constitute a reason for granting planning permission for the development if the obligation is—

- (a) necessary to make the development acceptable in planning terms;*
- (b) directly related to the development; and*
- (c) fairly and reasonably related in scale and kind to the development.*

2(A) Paragraph 2 does not apply in relation to a planning obligation which requires a sum to be paid to a local planning authority in respect of the cost of monitoring (including reporting under these Regulations) in relation to the delivery of planning obligations in the authority's area, provided:

- (a) the sum to be paid fairly and reasonably relates in scale and kind to the development;*

(b) the sum to be paid to the authority does not exceed the authority's estimate of its cost of monitoring the development over the lifetime of the planning obligations which relate to that development.

(3) In this regulation—

“planning obligation” means a planning obligation under section 106 of TCPA 1990 and includes a proposed planning obligation; and

“relevant determination” means a determination made on or after 6th April 2010—

(a) under section 70, 76A or 77 of TCPA 1990 of an application for planning permission; or

(b) Under section 79 of TCPA 1990 of an appeal.”

142. It is important to note that section 70 of the Town and Country Planning Act 1990 was amended to the effect that the making of a Development Consent Order is a relevant determination for the purpose of Regulation 122 above. Therefore, the tests (a) to (c) above which have existed in guidance for some time are now given statutory effect in relation to any S106 Planning Obligation associated with the proposed East Anglia TWO project.

4.1.18 Other Development Consent Orders

143. Development Consent Orders made under PA2008 constitute relevant legislation where the project shares any interface with them.

144. The Orders below have been made in relation to projects in the vicinity of the proposed development, offshore:

- The Galloper Wind Farm Order 2013
- The East Anglia ONE Offshore Wind Farm Order 2014 (including the Corrections and Amendments Order 2016)
- The East Anglia THREE Offshore Wind Farm Order 2017 (including the Correction Order 2018 and Amendment Order of 2019)

145. In the onshore environment, the Sizewell C Nuclear Power Station proposed DCO application has been notified to PINS. According to the Scoping Report, the proposed DCO project would relate to land that would also be contained within the proposed Order limits of the Sizewell C application scheme.

146. Other developments which may relate to the application project but which have been consented under other legislation, such as the Greater Gabbard Offshore

Wind Farm, are considered in **Table 3.1** which sets out the planning history of the site.

4.2 Policy and Guidance

147. The following sub-sections consider national, regional and local plans and policy, as set out in section 104 PA2008:

- Relevant NPS;
- The appropriate MPS;
- Impacts identified by the local planning authorities (which may form part of Local Impact Reports);
- Relevant matters prescribed in relation to the development, and
- Other matters, listed in this section, which are likely to be considered important relevant to the examination of the application, have all been taken into account in the development of the proposed East Anglia TWO project. These have included a range of policy documents including Local Plans from relevant local planning authorities (East Suffolk Council⁴) and other local policies and strategies including those of Suffolk County Council.

148. More detailed consideration of accordance (or otherwise) with specific policies and policy requirements is assessed in the **Planning Policy Tests** section of this Development Consent and Planning Statement.

4.2.1 National Policy Statements (NPSs)

149. As set out in S104(3) the application must be decided by the Secretary of State in accordance with any relevant NPS, unless certain specified exceptions apply, as set out in the **Legal and Planning Policy Context** section of this statement.

150. Designated NPSs which are relevant to the determination of the proposed East Anglia TWO application are as follows;

- Overarching NPS for Energy (EN-1);
- NPS for Renewable Energy Infrastructure (EN-3); and
- NPS for Electricity Networks Infrastructure (EN-5).

151. These NPSs were designated by the Secretary of State for Energy and Climate Change and published in July 2011 following their consideration by the Houses of Parliament which voted on favour of their designation.

⁴ Suffolk Coastal District Council and Waveney District Council merged to form East Suffolk Council on 1st April 2019

152. PA2008 establishes a presumption in favour of development which accords with the relevant NPSs unless certain exceptions specified in S104 apply. The primary test therefore is to assess whether, on the balance of probabilities, the applications in accordance with the relevant NPSs and other requirements of PA2008, including, where there is any adverse impact, whether this would outweigh the benefits of the proposed development.

4.2.1.1 Overarching National Policy Statement for Energy EN-1

153. NPS EN-1 sets out national policy for the energy related nationally significant infrastructure projects. It has effect, in combination with the relevant technology-specific NPS, on the decisions by the Secretary of State on applications for energy developments that fall within the scope of the NPSs. For such applications this NPS, when combined with the relevant technology-specific energy NPS, provides the primary basis for decision.

154. EN-1 sets out the need for energy NSIPs, noting that the UK requires a mix of energy infrastructure types if it is to achieve security of supply, reduce greenhouse gas emissions and meet legally binding targets. The continued development of offshore wind energy projects is therefore of vital importance to ensure the UK is able to meet its targets. The document makes clear that decisions should be taken on the basis that the urgent need for energy infrastructure has already been established, and in determining applications, the decision-maker should give substantial weight to the contribution that a development project would make towards satisfying this need. The need for the proposed East Anglia TWO project is considered against these NPS policies in the ***Need and the Case for the Development*** section of this Development Consent and Planning Statement.

155. EN-1 sets out assessment principles and, in relation to a range of generic impacts, assessment requirements associated with nationally significant energy infrastructure that need to be followed in the preparation of applications, covering topics such as the Historic Environment, Land Use and Traffic and Transport.

156. EN-1 also sets out policy in relation to the Secretary of State's decision making and policies for mitigation in relation to the same range of topic areas. A topic specific assessment of accordance with NPS EN1 policy is therefore included in the ***Accordance with National Policy Statements*** section of this Development Consent and Planning Statement.

157. EN-1 sets out policy on development consent obligations and on DCO requirements as applies to planning conditions set out in Circular 11/95⁵ (set out in full below) and in the NPPF.
158. EN-1 makes clear that in the event of conflict between an energy NSIP and policies set out in the Local Development Framework(s), the NPS takes precedence in the decision-making process.

4.2.1.2 National Policy Statement for Renewable Energy Infrastructure EN-3

159. In conjunction with EN-1, EN-3 provides the primary basis for decision-making on renewable energy infrastructure applications.
160. Policy on need, assessment and decision making is set out in the same structure and on the same approach as set out in the EN-1 above. A topic specific assessment of accordance with EN-3 policy is therefore included in the **Accordance with National Policy Statements** section of this Development Consent and Planning Statement.

4.2.1.3 National Policy Statement for Electricity Networks Infrastructure EN-5

161. In conjunction with EN-1, EN-5 provides the principal guidance for decision-making on nationally significant electricity network infrastructure.
162. Policy on need, assessment and decision making is set out in the same structure and on the same approach as set out in EN-1 above. A topic specific assessment of accordance with NPS EN-5 policy is therefore included in the **Accordance with National Policy Statements** section of this Development Consent and Planning Statement.

4.2.2 Marine Policy Statement

163. The MPS was prepared and adopted pursuant to s44 of the MCAA 2009 and was published on 18 March 2011 by all the UK administrations, as part of a new system of marine planning being introduced across UK seas.
164. The MPS provides the policy framework for the preparation of marine plans (see section 2.3.1) establishing how decisions affecting the marine area should be made in order to contribute to the achievement of sustainable development.
165. The UK marine area includes the territorial seas and offshore area adjacent to the UK, which includes the area of sea designated as the UK EEZ (the zone defined by The Exclusive Economic Zone Order 2013 which came into force on 31 March 2014) and the UK sector of the continental shelf. It includes any area

⁵ Appendix A (Model Conditions) retained since replacement by new planning practice guidance (<https://www.gov.uk/government/collections/planning-practice-guidance>)

submerged by seawater at mean high water spring tide, as well as the tidal extent (at mean high water spring tide) of rivers, estuaries and creeks.

166. The MPS acknowledges that sustainable, secure and affordable energy is central to the economic and social wellbeing of the UK, and identifies that marine planning is important in the contribution to securing the UK's energy objectives.
167. The document contains policies of specific relevance to the offshore components of the proposed East Anglia TWO project that support renewable energy, and acknowledge the beneficial environmental effects (e.g. air quality) that such developments can generate, when compared to those associated with the use of fossil fuels.

4.2.3 National Planning Policy Framework (NPPF)

168. The NPPF does not contain policies specific to NSIPs but does set out that NSIPs should be determined in accordance with PA2008 and relevant NPS. The NPPF, however, may be considered as a matter both important and relevant to this application, as set out in NPPF paragraph 3. Several core principles are set out in the NPPF, including the importance of sustainable growth and development, and of preserving the natural and built environment.
169. The NPPF was originally published on 27 March 2012 with the intention of making the planning system less complex and more accessible. It sets out the UK Government's planning policies for England and how these are expected to be applied. The NPPF replaced (with some exceptions) the suite of Planning Policy Guidance Notes (PPGs) and Planning Policy Statements (PPSs) which formerly provided national planning policy.
170. In the Introduction Section 1, Paragraph 5 of the NPPF is clear that
“The Framework does not contain specific policies for nationally significant infrastructure projects. These are determined in accordance with the decision making framework in PA2008 (as amended) and relevant national policy statements for major infrastructure, as well as any other matters that are relevant (which may include the National Planning Policy Framework)”.
171. The NPPF sets out government planning policy on the delivery of sustainable development through the planning process, and identifies a series of core principles covering the protection and conservation of the natural, built and historic environment, and the promotion of sustainable growth and development which may be important and relevant to the proposed East Anglia TWO project.
172. One of the core principles underpinning the NPPF, relates to supporting the transition to a low carbon future in a changing climate by encouraging the use of renewable resources, for example by the development of renewable energy.

173. Section 14 'Meeting the challenge of climate change, flooding and coastal change', paragraph 151 states:

"To help increase the use and supply of renewable and low carbon energy and heat, plans should:

- a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);*
- b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and*
- c) identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers."*

174. A consultation on a revised NPPF was launched in July 2018, and following this consultation a final updated NPPF was published on 19 February 2019. The changes introduced were in relation to calculating housing need according to the standard method, minor changes to other housing policies, and clearer confirmation that the presumption in favour of sustainable development does not apply where there are likely significant effects under the Habitats Regulations.

4.2.4 National Planning Policy Guidance

175. The National Planning Policy Guidance (NPPG) was first published on 6 March 2014 but is subject to regular updates. It's aim was to cancel and replace all previous Planning Policy Guidance notes, guidance contained within Planning Policy Statements and Departmental Circulars, though some of these remain in force.
176. NPPG covers topics such as consideration of flood risk and preparation of Flood Risk Assessments, and significant detail on the Town and Country Planning Act system which is not of direct relevance to this application.
177. In addition to NPSs, a policy hierarchy exists at the national, regional and local level that is of relevance to the onshore and offshore elements of the application. Such policy is considered potentially 'important' and 'relevant' to the decision-making process (EN-1, pp.44).

4.2.5 Circular 11/95: The Use of Conditions in Planning Permissions – Annex

178. Amongst the planning guidance not replaced by the NPPG above is the annex to Circular 11/95 on the use of Conditions in planning permissions. Whilst the tests for planning conditions that is lays down are also set out with regard to DCO

requirements, in NPS EN-1, this annex is considered important, relevant to the examination and determination of applications for development consent, with reference to requirements within DCOs. The annex states:

“Six tests for conditions

14. On a number of occasions the courts have laid down the general criteria for the validity of planning conditions. In addition to satisfying the court's criteria for validity, the Secretaries of State take the view that conditions should not be imposed unless they are both necessary and effective, and do not place unjustifiable burdens on applicants. As a matter of policy, conditions should only be imposed where they satisfy all of the tests described in paragraphs 14-42. In brief, these explain that conditions should be

- i. necessary;*
- ii. relevant to planning;*
- iii. relevant to the development to be permitted;*
- iv. enforceable;*
- v. precise; and*
- vi. reasonable in all other respects.”*

4.2.5.1 Marine Plans

179. Marine plans are prepared under the MCAA 2009 and must be in accordance with the MPS intended to guide developments and activities to ensure maximisation of the economic worth of the marine area in a sustainable way.

180. The East Inshore Marine Plan area covers 6,000km² of sea, from mean high water springs out to the 12 nautical mile limit, from Flamborough Head in the north to Felixstowe in the south. The East Offshore Marine Plan covers 49,000km² of area, from the 12 nautical mile limit to the border with The Netherlands, Belgium and France.

181. Public authorities, including the MMO, must consider the adopted marine plan for all authorisations. Paragraph (1) of the MMO External Decision Making and Implementation Mapping of Marine Plans (MMO1155) 1.2 (1) states:

“a public authority must take any authorisation or enforcement decision in accordance with the appropriate marine policy documents unless relevant considerations indicate otherwise”

and the definition of authorisation under MCAA 2009, section 58 (6) is:

"any approval, confirmation, consent, licence, permission or other authorisation (however described), whether special or general”

182. A relevant consideration includes whether or not an application relates to an NSIP as set out in PA2008. Decision making in relation to NSIP projects in English waters should have regard to the appropriate marine policy document be it the MPS or an adopted marine plan.
183. Policy WIND2 in the East Inshore and East Offshore Marine Plan states that proposals for Offshore Wind Farms inside Round 3 zones, including relevant supporting projects and infrastructure, should be supported.

4.2.6 Regional Policy

184. There are no extant regional spatial strategies, or regional planning documents extant in England applying to the project. The East Inshore and East Offshore Marine Plans as detailed above in **section 4.2.5.1**, could be considered the only regional plans relevant to the East Anglia TWO project.

4.2.7 The Development Plan and Local Policy

185. Local authorities are required to prepare and maintain up to date Local Development Plans, which set out their objectives for the use and development of land within their jurisdiction, and general policies for implementation. Where a conflict might arise between the NPS and local policy, the NPS will supersede local policy.
186. Prior to the Planning and Compulsory Purchase Act 2004, local planning policy was set out in a single document, the Local Plan. These Plans have been, or in some cases are now, being replaced by Local Development Frameworks (LDFs), which comprise a suite of Development Plan Documents (DPD) including a Core Strategy DPD, Site Allocations DPD, Area Action Plans and a Proposals Map. A DPD may be given a range of possible titles including Local Plan. DPDs are subject to independent examination, at which objectors have a right to be heard. Taken together, any adopted DPD for an area constitutes the development plan for the purposes of the planning acts. Adopted Development Plans are in place for the areas of the former Waveney District Council (WDC) and Suffolk Coastal District Council (SCDC). SCDC on 1 April 2019, merged with WDC into the new East Suffolk Council (ESC). To ensure a robust assessment has been undertaken, the local plans for WDC and SCDC have been considered in this Development Consent and Planning Statement.

4.2.7.1 Suffolk Coastal District

187. SCDC's current Local Plan was adopted on 5 July 2013 and continues to apply in the area of the onshore development, specifically the landfall, onshore cable corridor and onshore substations.
188. The new East Suffolk Council continues to promote two development plans, one for the Suffolk Coastal and the other for the Waveney area of the new District. At

the formation of the new Council, SCDC had been reviewing their current Local Plan. A Final Draft Local Plan was published for public consultation early in 2019 (period of consultation from 14 January to 25 February 2019) and was submitted for independent examination to the Secretary of State on 29 March 2019. As of June 2019, the Inspector appointed by the Secretary of State is conducting their examination, with a view to making a report and recommendation to the Council for adoption, or otherwise, of the new Local Plan.

189. Given that the new Local Plan is in the final stages of its examination and ultimate adoption, it is principally the policies with the Suffolk Coastal Final Draft Local Plan of January 2019 that may be considered important and relevant to the examination of the project under PA2008, and which have been considered in this Development Consent and Planning Statement.
190. The overarching vision of Suffolk Coastal District in 2036 is:
- Maintain and sustainably improve the quality of life for everyone growing up in, living in, working in and visiting East Suffolk.
191. The Final Draft Local Plan (SCDC, 2019) policies that are relevant are as follows:
- SCLP 2.3 – Cross-boundary Mitigation Effects on Protected Habitats
 - SCLP 3.4 - Proposals for Major Energy infrastructure Projects
 - SCLP 3.5 - Infrastructure Provision
 - SCLP 4.5 - Economic Development in Rural Areas
 - SCLP 7.1 - Sustainable Transport
 - SCLP 9.1 – Low Carbon and Renewable Energy
 - SCLP 9.2 - Sustainable Construction
 - SCLP 9.3 – Coastal Change Management Area
 - SCLP 9.4 – Coastal Change Rollback or Relocation
 - SCLP 9.5 – Flood Risk
 - SCLP 9.6 - Sustainable Drainage Systems
 - SCLP 9.7 – Holistic Water Management
 - SCLP 10.1 – Biodiversity and Geodiversity
 - SCLP 10.3 – Environmental Quality
 - SCLP 10.4 - Landscape Character
 - SCLP 11.1 - Design Quality
 - SCLP 11.2 - Residential Amenity
 - SCLP 11.3 – Historic Environment

- SCLP 11.4 - Listed Buildings
- SCLP 11.5 – Conservation Areas
- SCLP 11.6 – Non Designated Heritage Assets
- SCLP 11.7 - Archaeology

4.2.7.2 Waveney

192. The Waveney Local Plan was adopted on 20 March 2019. It applies to the part of East Suffolk formerly covered by the Waveney local planning authority area, which is to the north of the onshore development area.
193. This has replaced the Waveney District Council Core Strategy (2009), Development Management Policies (2011), Site Allocations (2011) and Lake Lothing and Outer Harbour Area Action Plan (2012) in their entirety.
194. Key priorities and objectives of the new Waveney Local Plan 2019 relevant to the proposed East Anglia TWO project include:
- Enhance and protect the natural, built and historic environment;
 - Reduce contributions to climate change and mitigate the effects and conserve natural resources;
 - Achieve sustained and resilient economic growth in towns and rural areas in order to support, 5,000 new jobs in the District; and
 - Improve the quality and provision of all types of infrastructure.
195. The relevant policies from the new Waveney Local Plan 2019 are as follows:
- WLP1.4 Infrastructure
 - WLP8.23 Protection of Open Space
 - WLP8.24 Flood Risk Policy
 - WLP8.25 Coastal Change Management
 - WLP8.27 Renewables and Low Carbon energy
 - WLP8.29 Design
 - WLP8.34 Biodiversity and Geodiversity
 - WLP8.35 Landscape Character
 - WLP8.37 Historic Environment
 - WLP8.40 Archaeology
196. There is one active neighbourhood plan in the area, the Leiston Neighbourhood Plan. The objectives of this plan are:

- Objective One: Contribute to the Core Strategy district-wide housing requirement and provide for the housing needs of the parish.
- Objective Two: Work with service providers to improve the physical infrastructure serving the residents and businesses of Leiston.
- Objective Three: Improve the community infrastructure of Leiston in order to provide more places for people, young and old, to undertake their leisure pursuits.
- Objective Four: Make Leiston town centre a place that more people want to visit for their shopping and leisure time.
- Objective Five: Improve movement by non-car modes, principally walking and cycling, whilst ensuring that all new residential properties have levels of parking that are appropriate to Leiston's role as a rural settlement and parish.
- Objective Six: Protect the existing business base of the town and ensure their needs are provided for as well as the needs of new businesses.

4.3 Other Policy

197. In addition to the Development Plan and government planning policy and guidance, a number of other policies and policy documents are considered to be important and relevant to the examination of the project.

198. The following policy documents are important and relevant in particular to the need for the project, a factor highlighted by EN-1, and are considered in more detail in the next section:

- Energy White Paper: Meeting the Challenge (May 2007);
- UK Low Carbon Transition Plan;
- National Strategy for Climate and Energy (July 2009);
- UK Renewable Energy Strategy (July 2009);
- Planning our electric future: a White Paper for secure, affordable and low carbon electricity (July 2011);
- The National Infrastructure Plan 2011;
- The National Infrastructure Plan update 2012;
- The National Infrastructure Plan 2013; and
- The National Infrastructure Delivery Plan 2016-2021 (March 2016).

199. The project is also located within the area of Suffolk County Council. Potentially relevant policies of the County Council include Suffolk County Council's Priorities for 2017 – 2021 (SCC 2017) which are to:

“Continue to champion the protection and enhancement of Suffolk’s natural and historic environment and our adaptation to climate change, to ensure we maximise the benefits our environment will deliver to our economic growth and health and wellbeing for now and future generations”; and

“Build on relationships with the Local Enterprise Partnership (LEP), to support business growth and unlock potential for greater growth in Suffolk”.

200. Whilst biodiversity policies relevant to NSIPs are set out in NPSs, potentially relevant policies from the Suffolk County Council Nature Strategy (SCC, 2015) are as follows:

- Protected wildlife sites – Recommendation 1
- Protected landscapes – Recommendation 2
- Priority habitats and species – Recommendation 3
- Urban green space – Recommendation 5
- Woodland and forestry – Recommendation 8
- Suffolk’s changing climate - Recommendation 10
- Marine – Recommendation 12
- Energy infrastructure – Recommendation 15
- Water management and water resources – Recommendation 20
- Biodiversity offsetting – Recommendation 22

5 Project Need, the Case for and Benefits of the Development

201. NSIPs, under PA2008, are required to be determined in accordance with any relevant NPS. Accordance of the proposed East Anglia TWO project with the decision making policies of the relevant NPSs (EN-1, EN-3 and EN-5), is set out in the **Accordance with National Policy Statements** section of this document. This section sets out the accordance of the project with NPS policies on need as set out in NPS EN-1, and the headings used within it are those used in NPS EN-1.
202. Paragraph 3.1.1 of EN-1 is clear that *“The UK needs all the types of energy infrastructure covered by this NPS in order to achieve energy security at the same time as dramatically reducing greenhouse gas emissions.”*
203. Paragraph 3.1.4 of EN-1 states that the Secretary of State should *“give substantial weight to the contribution which projects would make towards satisfying this need”* and paragraph 3.2.3 that the amount of weight given *“should be proportionate to the anticipated extent of a project’s actual contribution to satisfying the need for a particular type of infrastructure.”* EN-1 projected total need for new generation capacity by 2025 to be 59GW, including an assumed contribution to this total of 33GW from renewable sources.
204. In addressing policies on need, this section identifies the various elements that make up the urgent need for new electricity NSIPs (as stated in EN-1 in 2011), and considers the extent to which this need has changed since then and whether the project can be considered to accord with the level of need as set out in EN-1, taking into account the situation today.
205. While considerable uncertainties exist, the following conclusions can be drawn which together reinforce the EN-1 conclusion that the need for new and additional generation capacity is significant.
206. Risk to security of supply has increased:
- Total generating capacity has dropped 4GW, from 85GW to 81GW since 2011. Fossil fuel capacity particularly has closed, while renewable capacity has nearly tripled; and
 - Closure of fossil fuel generators, most notably coal and nuclear, is expected to intensify, with further losses of 19 – 22GW (by 2025), over and above the 22GW anticipated by the NPS, meaning a total loss from these sources of 41 – 44GW. (BEIS 2018a)

207. In addition, overall electricity demand is likely to rise during the 2020s as a greater proportion of the UK's heat and transportation systems electrify. Differing figures are presented by the Department of Business, Energy and Industrial Strategy (BEIS) and the Committee on Climate Change (CCC), depending on levels of electrification. NPS EN-1 envisages a doubling or tripling in demand, while the more recent CCC work translates into new demand for up to 32GW (de-rated) additional electricity capacity by 2025.
208. The pipeline of NSIP energy projects (Planning Inspectorate 2019) and other onshore and offshore wind projects over 50MW is between 42 and 79GW (2011 – 2019), which is potentially more than the minimum 59GW of new projects required by the NPS (*see Table 5.1*). However:
- Only around 30.5GW of these projects are renewable or low carbon, and have a high degree of certainty of progressing (as submitted applications), which is well below both the NPS minimum of 33GW, and the 44GW of capacity that the CCC advises is needed to achieve the Fifth Carbon Budget; and
 - As noted above, a larger number of existing plants have closed than envisaged when the minimum target was set.
209. The following table summarises estimates of the likely shortfall in capacity during the 2020s, these are presented in detail later in this section.

Table 5.1 Summary table of Estimated Changes in Capacity, Demand and Shortfall During 2020s (Figures Rounded) (BEIS, 2018) (Planning Inspectorate 2019)

Capacity and Demand	Amount (GW)	Cumulative Total (GW)
Capacity		
A – Total capacity 2017	81	
B – Closures by 2025 (mid estimate)	-43	
C – Total capacity by 2025		(A+B) 38
Demand		
D – Demand increase by 2025 (CCC 2015 central estimate – de-rated)	32	
E – Demand increase over 2017 capacity		(A+D) 113
New capacity		
F – Known higher certainty new capacity (consented or operational projects)	42	
G – Known lower certainty new capacity (pre-decision projects)	79	
H – Known new capacity		(C+F) 80 to (C+G) 118
Shortfall		
I – Total minimum shortfall in capacity (lower to higher certainty)		(E-H) -33 to -5

210. The 2019 legislation enabling the Climate Change Act (CCA) target to be updated to “net zero greenhouse gasses emissions”, is likely to result in new policies to promote renewable and low carbon energy at the expense of fossil fuels without carbon capture and storage. Its effect on need is uncertain, but the CCC’s analysis assumes deeper electrification and a bigger proportion of renewables. This means electricity demand is likely to be very much higher than the CCC’s 2015 estimate, while more variable renewables would translate into a higher overall capacity shortfall than the -5 to -33GW set out above, due to de-rating.
211. The role of offshore wind in delivering additional renewable electricity capacity is highlighted by the CCC reports, which also recognise that the offshore wind sector is now maturing and showing very significant cost reductions. The recent Sector Deal and net zero analysis by CCC seeks around 30GW of offshore wind to be deployed by 2030 and current high certainty projects total around 30GW.
212. At the same time, without further policy support mechanisms, in a market system in which lowest cost technologies will normally get built at the expense of higher cost ones, large-scale fossil fuel generation and nuclear are likely to lose market share to increasingly cheap renewables. The reason for this is that installing fuel-free technologies, such as solar and wind, gets cheaper over time as deployment grows, whereas coal and gas are traded commodities with more volatile costs.
213. In addition, as set out below, while the rapidly evolving energy system creates uncertainty, the growth in alternatives (energy efficiency, decentralisation of the system and interconnections) does not materially affect the need for new and additional generation capacity.
214. It is reasonable to conclude, therefore, that the -5 to -33GW shortfall is an absolute minimum remaining energy gap, and very substantial weight should be accorded to the contribution this development will make to satisfying this need.
215. In summary, therefore, the proposed East Anglia TWO project by contributing approximately 4% of the UK’s current cumulative deployment target for 2030 (CCC 2018), will make a significant contribution to the UK’s renewable and overall energy need as set out in NPS EN-1, to fulfilling future increasing demand for renewable energy, and delivering on the Government’s recent commitment to achieving net zero greenhouse gasses emissions by 2050.

5.1 The Need for New Nationally Significant Electricity Infrastructure Projects

216. The key reasons why the Government believes there is an urgent need for new electricity NSIPs are analysed in the remainder of this section. Since publication of EN-1, there have been notable developments in Government policy and legislation, including:

- The Clean Growth Strategy (BEIS, 2017) sets out how the UK Government intends to decarbonise all sectors of the UK economy through the 2020s, including innovation in the power sector (including renewables);
- In March 2019, the UK offshore wind sector committed to a sector deal which aims to increase offshore wind capacity to 30GW by 2030 (RenewableUK, 2019), which represents an increase from the approximately 8GW currently deployed today, envisaging an investment of £48 billion in UK offshore wind infrastructure;
- The NPPF was published in 2012 and updated in 2019 and applies to England. Of relevance to need is footnote 49, which states that “*Except for applications for the repowering of existing wind turbines, a proposed wind energy development involving one or more turbines should not be considered acceptable unless it is in an area identified as suitable for wind energy development in the development plan; and, following consultation, it can be demonstrated that the planning impacts identified by the affected local community have been fully addressed and the proposal has their backing*”; this policy as applying to Town and Country Planning Act 1990 applications, together with the removal in 2016 of onshore wind developments from the option of applying for a DCO under PA2008, is likely to have the effect of significantly reducing deployment of new onshore wind;
- The UK Government’s recent announcement confirming that the next Contracts for Difference allocation round for less established technologies (such as offshore wind) will begin in May 2019, with another allocation round in 2021 and auctions every two years thereafter, reaffirms the Government’s commitment to supporting some renewable technologies; and
- Legislation made on 27 June 2019, to update the target in the Climate Change Act 2008 target from an 80% reduction in carbon emissions by 2050, to net zero greenhouse gasses emissions by the same date which may have uncertain effects, but the following sections draw on some of the CCC’s analysis which underpinned this legislative change.

217. These commitments, and especially the updated CCA serve to demonstrate that the urgent need stated in EN-1 is now even more pronounced, particularly where reference is made to meeting the country’s 2050 obligations.

5.1.1 Meeting Energy Security and Carbon Reduction Objectives

218. Paragraph 3.3.2 of EN-1 states “*The Government needs to ensure sufficient electricity generating capacity is available to meet maximum peak demand, with a safety margin or spare capacity to accommodate unexpectedly high demand and to mitigate risks such as unexpected plant closures and extreme weather events.*”

219. The urgency of carbon reduction objectives is illustrated both by this and by the recent Government legislation, which enables the CCA to be updated to deliver net zero greenhouse gasses emissions by 2050.
220. The CCC's analysis (CCC 2019) of how this could be achieved assumes "*around a doubling of electricity demand, with all power produced from low-carbon sources (compared to 50% today). That could for example require 75GW of offshore wind in 2050, compared to 8GW today and 30GW targeted by the Government's sector deal by 2030. 75GW of offshore wind would require up to 7,500 turbines and could fit within 1-2% of the UK seabed, comparable to the area of sites already leased for wind projects by the Crown Estate*".
221. When EN-1 was published, total generation capacity in the UK was around 85GW, whilst the average demand across a year was only around half of this (43GW).
222. In 2017, total capacity had fallen to around 81GW (BEIS 2018a), and average demand to about 40GW⁶. This drop in capacity has come entirely from the closure of fossil fuel generating plants and some nuclear, while renewable capacity has increased substantially (see **section 5.1.2** of this document below).
223. EN-1 notes that the larger the safety margin between total capacity and average demand, the better. However, since publication of EN-1, this margin has reduced by around 1GW, from 42GW to 41GW.
224. Paragraph 3.3.4 of EN-1 goes on to stress the benefits of a diverse mix of fossil fuel, renewable and nuclear generation. At the time of publication (DECC 2010), capacity of each was:
- Fossil fuel (with carbon capture and storage) – 66.6GW (no carbon capture and storage);
 - Renewables – 7.9GW; and
 - Nuclear – 10.9GW.
225. By comparison, in 2017 (BEIS 2017) these figures were:
- Fossil fuel (with carbon capture and storage) – 50.9GW (no carbon capture and storage)
 - Renewables – 21GW
 - Nuclear – 9.4GW
226. The decision-making criteria in section 3.1 of EN-1 is clear that it is not appropriate for UK Government to set targets for individual technologies, and the

⁶ 354 TeraWatt hours (TWh), divided by 8760 hours (no. of hours in a year) gives 40GW average demand

assumption should be a need for all types. However, this should be seen in the context of carbon reduction objectives, and particularly the 2019 legislative commitment to zero net greenhouse gasses emissions. The CCC's analysis (CCC 2019) of how this could be achieved assumes deeper electrification in all economic sectors, a bigger proportion of renewables and gas with CCS.

5.1.2 The Need to Replace Closing Electricity Generating Capacity

227. Around a quarter of the total generating capacity (22GW of 85GW) was scheduled to need replacing, with much of this by 2020. Since publication of the NPS EN-1 several additional factors have led to an even higher figure than envisaged:

- The UK Government has committed to a complete phase out of coal fired power stations by 2025 and restrictions on its use from 2023 (UK Government 2015). European pollution standards, and the UK's minimum floor price set in the Government's 2013 Control for Low Carbon Levies, meant that in 2018 a combined capacity of around 11GW of coal generated less than 16TWh (approximately 4.8% of total generation), compared with 103TWh in 2011 (BEIS 2018b);
- As described in **section 5.1.1** of this document, nearly 16GW of fossil fuel and 1.5GW of nuclear capacity had closed by 2017, totalling 17.5GW;
- Looking forward, of the seven operational coal plants (Power Stations UK 2019), two will close by 2020 (2GW Cottam in September 2019 and 1.5GW Fiddler's Ferry in March 2020), and the remaining plants by 2025 (totalling between 4.5 and 7.4GW⁷), taking the figure to 21GW in 2020 and between 25.5GW and 28.4GW by 2025;
- Due to life extensions, no nuclear stations are anticipated to close before 2020, but four are scheduled for closure by 2025 with a combined net capacity of around 4GW⁸; and
- According to CCC analysis in 2015, 11.6GW of combined cycle gas turbines (CCGT) will have closed by 2025.

228. As a result, between 41GW and 44GW of coal, gas and nuclear closures are expected by 2025 (BEIS 2018c), which is significantly larger than the NPS EN-1 figure of 22GW (between 19 and 22GW larger). Paragraph 3.3.9 is clear that "*any reduction in generation capacity from current levels will need to be replaced in order to ensure security of supply is maintained.*"

⁷ The range depends on whether Drax and Aberthaw B convert to biomass

⁸ Nuclear power in the United Kingdom, Wikipedia

5.1.3 The Need for More Electricity Capacity to Support an Increased Supply from Renewables

229. Section 3.4 of EN-1 commits to a dramatic increase in capacity from renewables, but paragraph 3.3.11 notes that back up for the intermittency of most renewable generation is required. At present, this is likely to come from fossil fuel generation but in future, electricity storage, interconnection and demand-side response could play a role. This is discussed in more detail below in **section 5.1.6** of this document.

5.1.4 Future Increases in Electricity Demand

230. EN-1 (paragraphs 3.3.13 – 3.3.14) anticipates that large parts of the country's heat and transportation demand will be electrified, meaning total electricity consumption (measured in terawatt hours over a year) could double or even triple by 2050, depending on the choice of how electricity is supplied.

231. BEIS (BEIS 2018c) reference scenario⁹ project predicts that total final electricity demand will fall slightly from 25.8 million tonnes of oil equivalent (Mtoe) in 2017, from 27.3 Mtoe in 2011, to 24.3 Mtoe in 2022. It is then projected to increase steadily, reaching 27.5 Mtoe in 2030.

232. In 2015, the CCC identified that as demand grows, more capacity will be needed and their central scenario would necessitate a total of 32GW of de-rated¹⁰ electricity capacity by 2025 (CCC 2015). The proposed East Anglia TWO project would contribute 900MW towards this.

233. In summary, the likely increase in electricity demand is uncertain, but is likely to be considerably higher than today, particularly now that the Government has legislated for net zero emissions. This translates into very significant need for large-scale renewable energy projects.

5.1.5 The Urgency of the Need for New Electricity Capacity

234. Due to the long operating horizons for large-scale energy infrastructure and paragraph 3.3.16 of EN-1 notes that *“a failure to decarbonise and diversify our energy sources now could result in the UK becoming locked into a system of high carbon generation, which would make it very difficult and expensive to meet our 2050 carbon reduction target.”*

235. Paragraph 3.3.22 of EN-1 states that it is prudent to assume that demand in 2025 may increase relative to 2011 (**section 5.1.4** of this document above concludes

⁹ Reference scenario is based on central estimates of economic growth and fossil fuel prices. Contains all agreed policies where decisions on policy design are sufficiently advanced to allow robust estimates of impact (i.e. including "planned" policies).

¹⁰ De-rated capacity is the metric used to standardise electricity generation capacity across technologies with different availabilities. It reflects the probable proportion of a source of electricity which is likely to be technically available to generate (even though a company may choose not to utilise this capacity for any reason) (CCC 2015).

that this increase could be very significant), and that a larger amount of generating capacity will be required to serve even the same level of demand (for reasons of differing capacity factors between technologies). Therefore, EN-1 concludes the UK would need at least 113 GW of total electricity generating capacity (compared to around 85GW in 2011), of which at least 59GW would be new build. Paragraph 3.3.24 of EN-1 presents this as a minimum figure to be delivered.

236. EN-1 says that of this 59GW, around 33GW would need to come from renewable sources to meet renewable energy commitments. Paragraph 3.3.22 notes that, in principle, new nuclear power should be free to contribute as much as possible towards meeting the need for around 18GW of new non-renewable capacity. In other words, new nuclear will not reduce the need for new renewable generation.
237. The CCC, in its advice on the Fifth Carbon Budget, identified that low-carbon energy generation should reach a total share of around 75% of energy generation by 2030, to meet the target of reducing carbon emissions by at least 80% of 1990 levels by 2050 (CCC 2015). Accordingly, of the 59GW in the NPS, 44GW would need to be renewable or low carbon as a minimum. With the recent Government commitment to updating the CCA to net zero greenhouse gasses emissions, this share may need to be significantly greater still.
238. The role of offshore wind in delivering additional renewable electricity is highlighted by the CCC reports, which also recognises that the offshore wind sector is now maturing and showing very significant cost reductions. The recent Sector Deal and net zero analysis by CCC assumes around 30GW of offshore wind to be deployed by 2030.
239. Since 2011 the following NSIP projects presented in **Table 5.2** have been proposed (pre-application stage on PINS website), consented or constructed:

Table 5.2 – New projects over 50MW since 2011 to 2025 (sources: PINS register of NSIPs and RenewableUK Wind Energy Summary Statistics)

Projects over 50MW	Capacity	Notes
Renewable		
Renewable (NSIP) – pre-decision	15GW	7.5GW of offshore wind (excludes Hornsea 4 as no details available)
Renewable (NSIP and >50MW) – consented or operational	30.5GW	24.6GW of offshore wind
Total renewable (potential)	45.5GW	
Non-renewable		
Non-renewable (NSIP) – pre-decision	16GW	
Non-renewable (NSIP) – consented	8GW	
Total non-renewable (potential)	24GW	Includes energy from waste
Nuclear		
Nuclear (NSIP) – pre-decision	6.4GW	Excludes Oldbury, which is on hold
Nuclear (NSIP) – consented	3.2GW	

Projects over 50MW	Capacity	Notes
Total nuclear (potential)	9.6GW	
Totals	Lower Certainty	Higher Certainty
Total all projects	79.1GW	41.6GW
Total renewable and low carbon projects	45.1GW	33.7GW

240. **Table 5.2** shows that potential projects exist in the NSIP and large scale renewable pipeline that at first sight could meet the NPS’s minimum overall need of 59GW. However, when pre-decision projects are removed (i.e. those with lower certainty of being consented, achieving the necessary funding and then ultimately becoming operational), the total projects are significantly below forecast need, offering only 41.6GW. For example, investment in the major nuclear proposals at Moorside and Wylfa Newedd¹¹ has been halted and Swansea Tidal Lagoon will not progress due to funding. Therefore, achievement of the minimum 59GW would be unlikely or at least at significant risk without new projects such as East Anglia TWO coming forward.

241. Furthermore, there are insufficient higher certainty renewable or low carbon proposals to deliver the 33GW envisaged in the NPS EN-1, and the total is significantly short of the 44GW needed for the legally binding Fifth Carbon Budget (UK Government 2019). In addition, three important caveats need to be considered:

- The number of closures of existing generating plants is higher than anticipated by Government in 2011 (see **section 5.1.2** of this document) and so the required additional new build capacity must be higher by at least 19GW – 22GW. As such, the capacity of known pipeline of projects is well below that needed to achieve energy security as shown in **Table 5.2**;
- **Table 5.2** does not tell us whether these projects have or will be built, nor when they will become operational, and so it cannot give a complete picture of actual supply. For example, along with a DCO, all projects still require funding, and this depends in part on investor/developer confidence in longer-term energy policy. The total capacity of projects that reach the operational phase could be very significantly lower than even the consented figures. The effect of the recent commitment to legally binding net zero emissions on the viability of fossil fuelled projects cannot yet be determined with any certainty; and
- Similarly, and as noted above, the balance between new capacity for renewable/low carbon and fossil fuels sources is likely to need to change in response to forthcoming updates to the CCA. This creates uncertainty.

¹¹ Whilst the Wylfa Newedd project application has been submitted and continues to be examined, lack of available investment suggests it is unlikely to move forward in the near future.

242. A dataset produced by the CCC calculated cumulative deployment figures (TWh/year) for different forms of electricity generation in the UK from 2015 through to 2030 (CCC 2016). For offshore wind, the Fifth Carbon Budget target for 2020 is 36.6TWh/year which doubles in 10 years to 72.4TWh/year for 2030. Calculations show that the proposed East Anglia TWO project will generate approximately 3.7TWh/year using the calculation below:

- 900MW x 8766h/year x 0.473 (load factor¹²)

243. Therefore, with a total installed capacity of up to 900MW, the proposed East Anglia TWO project alone has the potential to meet approximately 4% of the UK's current cumulative deployment target for 2030 (CCC 2018).

5.1.6 Alternatives to New Large Scale Electricity Generation Capacity

244. EN-1 is clear that while alternatives to new large-scale generation are important, they will not be sufficient to meet energy and climate change objectives. Therefore, regardless of progress, the Government considers that growth in alternatives do not materially affect the need for new and additional generation capacity. The following sections consider whether or not progress since 2011 is in line with the NPS expectations and whether any factors exist that might justify reconsidering this position.

5.1.6.1 Reducing Demand

245. The policy measures referred to in paragraphs 3.3.27 – 3.3.29 of EN-1 have had mixed success. On the one hand, the Green Deal¹³ has been effectively scrapped (in 2015 the Government announced no further funding would be provided) and the smart meter roll out has been slower than originally envisaged. On the other, dramatic reductions in the cost of super-efficient Light Emitting Diode (LED) light bulbs means they are rapidly replacing incandescent and even halogen bulbs, while the period in which Feed-in-Tariff payments were available saw deployment of small-scale (<50kW) solar photovoltaic installations grow from almost zero to over 7GW (BEIS 2019a).

246. Nonetheless, as discussed in **section 5.1.4** of this document, electricity demand is expected to rise during the 2020s as electrification of transport and heat gathers pace. The NPS conclusion that efficiency will not be sufficient on its own to reduce the need for new generation, therefore, appears to remain sound.

247. It is worth noting however that, contrary to UK Government assumptions in 2011 (paragraph 3.3.29 of EN-1), a clear trend is emerging towards a more decentralised energy system. Most of the (at least) 7GW of utility-scale solar

¹² Load factor taken from

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/747218/2019-20-renewables-obligation-level.pdf

¹³ <https://www.gov.uk/green-deal-energy-saving-measures>

since 2010 (BEIS 2019a) and around half of onshore wind is connected to the distribution rather than transmission network. This is affecting how system operator National Grid views the future electricity system. Its annual Future Energy Scenarios show that in 2017, 75GW of capacity was connected to the transmission network, while 28GW was either distribution connected or micro capacity (National Grid, 2018). Their latest scenarios anticipate 79-110GW of transmission capacity and 37-72GW of distribution connected and micro capacity by 2030.

248. This is relevant to an assessment of demand since National Grid count distribution scale generation as a reduction in energy demand rather than additional generation and so significant deployment will impact on overall need.
249. Both solar and onshore wind deployment have seen huge growth since 2011 but have been adversely affected by post 2015 Government policy in which both technologies have been excluded from the Renewables Obligation and Contracts for Difference rounds. Onshore wind deployment has been further affected by restrictive changes to planning policy.
250. While there do not appear to be any Government moves to reverse these policies, large scale subsidy free solar projects are now beginning to come forward. Research by Solar Media published at the start of 2019 showed nearly 1.5GW of applications had been submitted for planning permission (Solar Media 2019). Due to the size of these projects, most will be sub-50MW and connected to the distribution network.
251. The future balance between transmission and distribution connected capacity is uncertain but even in National Grid's most decentralised scenario, the amount of very large-scale capacity connected to the transmission network will grow relative to the current situation. If Government policy continues to restrict solar and onshore wind then offshore wind will need to make up the difference in meeting CCA targets and is likely to result in a larger share for transmission connected projects.

5.1.6.2 More Intelligent Use Of Electricity

252. In 2011 EN-1 did not envisage smart energy systems or new electricity storage technologies, such as batteries, playing an important role before 2020. In reality, utility scale projects have already started to appear on the system, driven in part by very significant technology cost reductions. National Grid data show 3.4GW of capacity in 2018 and scenarios of between around 6GW and 9GW by 2030 (National Grid 2018). These range from projects connected directly to the distribution or transmission network to those designed to allow renewable energy projects to provide more dispatchable power (known as "behind the meter").

253. The UK Government in 2011 expected “that demand side response, storage and interconnection, will play important roles in a low carbon electricity system, but still envisages back up capacity being necessary to ensure security of supply until other storage technologies reach maturity” (NPS EN-1 paragraph 3.3.31).
254. In 2019 this conclusion broadly holds, but the transition towards a more decentralised electricity system is reshaping the energy landscape. In a market system, in which lowest cost technologies will normally get built at the expense of higher cost ones, without specific policy support this trend is likely to see large-scale fossil fuels and nuclear lose out to increasingly cheap renewables. This is illustrated in the CCC’s analysis of marginal abatement costs (**Plate 5:1**), in which renewables have a negative cost per tonne of CO₂ saved, whereas CCS and peak gas plant are well above £100/tonne.

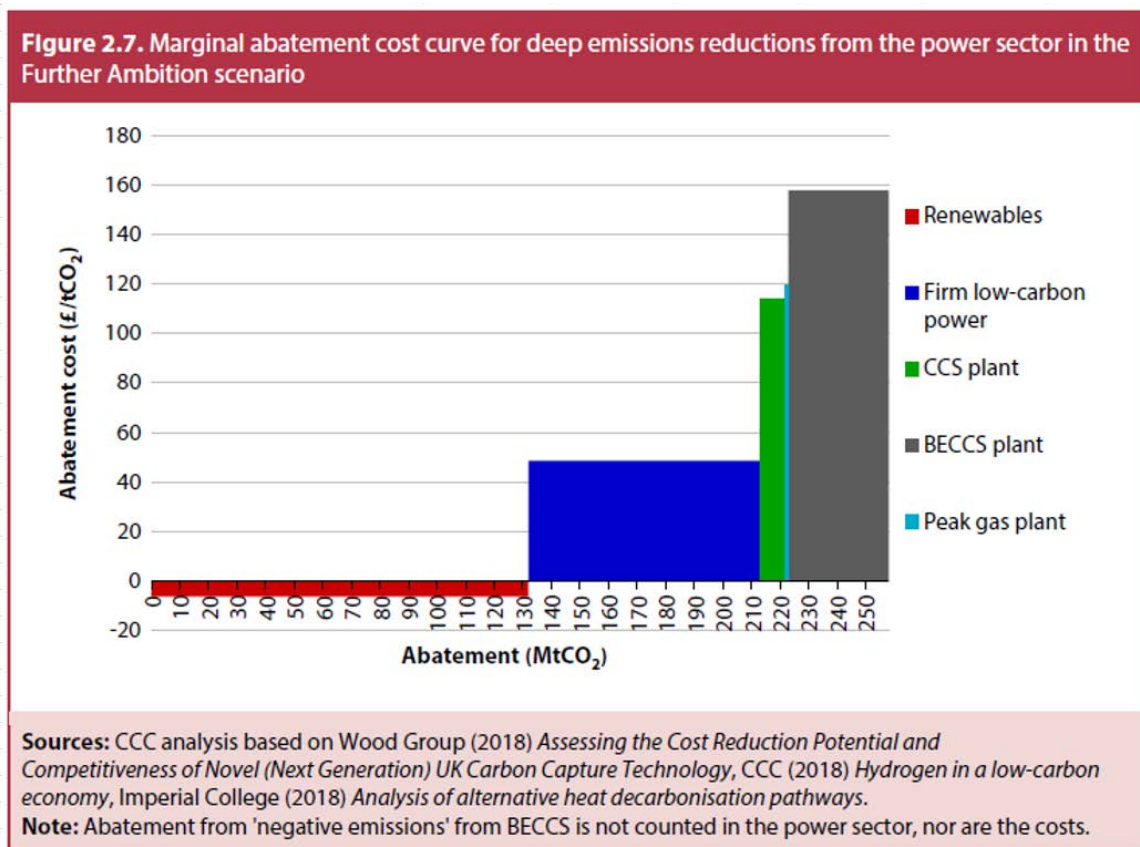


Plate 5:1 Extract from CCC analysis (CCC 2018)

255. Ultimately, a more decentralised system in which free-fuel technologies (e.g. solar, wind, batteries, demand-side management) become cheaper and cheaper

will increase the overall capacity need for large and small-scale renewable generation projects since these technologies typically have lower load factors¹⁴.

5.1.6.3 Interconnection of Electricity Systems

256. In 2011, EN-1 envisaged up to 10GW of interconnectors by 2020, “*However, it cannot be assumed that they will all go ahead, so the UK’s level of interconnection is likely to remain relatively low for the foreseeable future. Increased investment in interconnection is therefore unlikely to reduce the need for new infrastructure in the UK to a great extent.*”

257. In 2018 there was just under 4GW of operational interconnectors between Great Britain, the Continent and Ireland (National Grid 2018). No new NSIP interconnection projects have been approved but there are currently two projects at pre-application stage, with a combined capacity of 3.4GW, of which one (2GW) is scheduled for submission during 2019. It seems highly likely therefore that a significant shortfall in interconnector capacity will remain into the 2020s.

5.1.7 Conclusions on NPS EN-1 Policy on Need

258. It is clear from the preceding sections that the UK’s energy system is undergoing a period of rapid change. The effects this will have in the coming decade on supply and demand profiles, the technologies and the scale of projects that will dominate are not yet fully clear. However, the following conclusions can be drawn, which together reinforce the NPS conclusion that growth in alternatives do not materially affect the need for new and additional generation capacity:

- Overall electricity demand is likely to rise during the 2020s as a greater proportion of the heat and transportation systems electrify;
- Even in National Grid’s most decentralised scenario, the amount of large-scale capacity connected to the transmission network will grow relative to the current situation;
- In a market system, in which lowest cost technologies will normally get built at the expense of higher cost ones, this trend is likely to see large-scale fossil fuels and nuclear lose out to increasingly cheap renewables;
- Ultimately, a more decentralised system in which free-fuel technologies (solar, wind, batteries, demand-side management) become cheaper and cheaper will create even more need for large and small-scale renewable generation projects;
- it seems highly likely that a significant shortfall in interconnector capacity will remain into the 2020s;

¹⁴ Load factors allow different technologies with differing generation capacity to be compared with one-another. They are presented on the basis of net of availability, expressed on a total installed capacity, e.g. new build offshore wind in England is 47.3%, so a 1MW turbine will generate (1 x 8766h/year x 0.473) 4.1GWh, whereas a new 1MW biomass plant would generate 5.9GWh (1 x 8766h/year x 0.674).

- in 2011, EN-1 envisaged an energy gap to 2025 of 59GW, 33GW of which was to be met from renewable sources, estimates since then suggest there will be an energy gap of -5 to -33GW to 2025 (and likely to be greater once stalled projects are discounted and the likely additional demand from the net zero legislation is accounted for); and
 - furthermore, insufficient renewable energy projects are expected to come forward to meet the 33GW of renewable energy envisaged in the NPS, the 44GW advised by the CCC as being required to meet the legally binding Fifth Carbon Budget, or any increase on this demanded by the new Net Zero target.
259. For all the above reasons, a significant need for nationally significant energy projects in general, and for renewable energy in particular, exists today as set out in EN-1. Therefore, the East Anglia TWO project would make a significant contribution to meeting this need and it fully accords with Part 3 of EN-1.
260. Specifically, as a result, this application:
- Meets need in the UK for the types of energy infrastructure covered by EN-1, and will meet approximately 4% of the UK's current cumulative electricity supply deployment target for 2030, enough for 800,416 households, necessary in order to achieve energy security at the same time as dramatically reducing greenhouse gas emissions (paragraph 3.1.1 of EN-1);
 - Is promoted as a renewable energy project by industry in accordance with EN-1 policy that it is for industry to propose new energy infrastructure projects within the strategic framework set by Government, and in which it is not considered appropriate for planning policy to set targets for or limits on different technologies (paragraph 3.1.2 of EN-1); notwithstanding this the project would contribute to the delivery of the 33GW of renewable energy envisaged in NPS EN1 and the ambition to deliver 30GW of offshore wind by 2030 as set out in the UK Government's Offshore Wind Sector Deal. The scale of this ambition is possible due to the costs of offshore wind falling significantly in the last decade, driven by competitive allocation of support, technological innovation and reductions in the cost of capital due to the risk profile coming down, which has brought benefits to UK energy consumers and enhanced competitiveness which in turn supports the viability of the project¹⁵;
 - Should therefore be assessed on the basis that the Government has demonstrated that there is a need for renewable energy infrastructure, that the scale of the need is significantly in excess of what is currently being

¹⁵ Page 27 of UK Government Offshore Wind Sector Deal
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790950/BEIS_Offshore_Wind_Single_Pages_web_optimised.pdf

promoted and that the need for renewable energy is urgent (paragraphs 3.2.3 and 3.4.5 of EN-1); and

- The Examining Authority and the Secretary of State should give substantial weight to the contribution which the project would make towards satisfying this need (paragraph 3.1.4 of EN-1).

5.2 The Role of Renewable Electricity Generation

261. NPS EN-1 sets out that “the UK has committed to sourcing 15% of its total energy (across the sectors of transport, electricity and heat) from renewable sources by 2020” as established in the UK Governments 2009 “Renewable Energy Strategy”. The NPS goes on to state that “by 2020 about 30% or more of our electricity generation, both centralised and small scale, could come from renewable sources, compared to 6.7% in 2009”. Whilst progress has been made in renewable electricity generation, progress of total renewable energy has been slower.
262. Key developments in international renewable energy targets to which the UK has signed up include, in line with the Kyoto Protocol (see **section 4.1.4**) and under the Renewable Energy Directive (2009/28/EC), an established UK target of 20% of energy to come from renewable sources by 2020. At present whilst UK renewable energy has soared to around 28% of electricity generation (BEIS 2019b), its share as a percentage of the Directive’s gross final energy consumption (i.e. all energy consumption not just electricity)¹⁶ is at 10.2% (European Commission 2017a), some way short of the 2020 target. European energy policy recognises that the use of renewable energy contributes significantly to limiting climate change and plays a part in securing energy supply as well as creating employment in Europe.
263. In terms of national targets for renewable energy, the UK Government transposed the Renewable Energy Directive into UK law, primarily through ‘The Promotion of The Use of Energy from Renewable Sources Regulations 2011’ and the ‘Renewable Transport Fuel Obligations (Amendment) Order 2011, which set targets to deliver on the Renewable Energy Directive by sourcing 15% of all energy and 10% of transport fuels from renewables by 2020. The East Anglia TWO project has the benefit of delivering significantly against these targets.

¹⁶ Gross final renewable energy consumption is the amount of renewable energy consumed for electricity, heating and cooling, and transport in the EU Member States with actual and normalised hydropower and wind power generation [1], and expressed as the share of gross final energy consumption. The indicator was developed to measure the EU’s progress towards achieving the 2020 and 2030 objectives on renewable energy. RED (Directive 2009/28/EC) commits the EU to reaching a 20 % share of renewable energy in gross final energy consumption [2] by 2020, and a 10 % share of RES-T by the same year. It sets binding national targets for renewable energy consumption by 2020 and prescribes minimum indicative trajectories for each country in the run-up to 2020 to ensure that national 2020 targets will be met.

5.3 The Need for New Electricity Network Infrastructure

264. The East Anglia TWO Project includes around 2km of transmission infrastructure essential connect the Project to the National Grid.
265. NPS EN1 clearly establishes the need for transmission infrastructure also states that *“there is an urgent need for new electricity transmission and distribution infrastructure (and in particular for new lines of 132 kV and above) to be provided. The IPC should consider that the need for any given proposed new connection or reinforcement has been demonstrated if it represents an efficient and economical means of connecting a new generating station to the transmission or distribution network, or reinforcing the network to ensure that it is sufficiently resilient and has sufficient capacity (in the light of any performance standards set by Ofgem) to supply current or anticipated future levels of demand”*.
266. The project represents the most efficient route for connection of the infrastructure taking into account site, planning and design factors, considered in more detail in ES **Chapter 6 Project Description**. The Project therefore meets the need for essential electricity network infrastructure as set out in NPS EN1 and EN5.

5.4 Conclusions on NPS EN-1 Policy on Need

267. It is clear from the preceding sections that the UK’s energy system is undergoing a period of rapid change. The effects this will have in the coming decade on supply and demand profiles, the technologies and the scale of projects that will dominate are not yet fully clear. However, the following conclusions can be drawn, which together reinforce the NPS conclusion that growth in alternatives do not materially affect the need for new and additional generation capacity:
- Overall electricity demand is likely to rise during the 2020s as a greater proportion of the heat and transportation systems electrify;
 - Even in National Grid’s most decentralised scenario, the amount of large-scale capacity connected to the transmission network will grow relative to the current situation;
 - In a market system, in which lowest cost technologies will normally get built at the expense of higher cost ones, this trend is likely to see large-scale fossil fuels and nuclear lose out to increasingly cheap renewables;
 - Ultimately, a more decentralised system in which free-fuel technologies (solar, wind, batteries, demand-side management) become cheaper and cheaper will create even more need for large and small-scale renewable generation projects;
 - it seems highly likely that a significant shortfall in interconnector capacity will remain into the 2020s;
 - in 2011, EN-1 envisaged an energy gap to 2025 of 59GW, 33GW of which was to be met from renewable sources, estimates since then suggest there

will be an energy gap of -5 to -33GW to 2025 (and likely to be greater once stalled projects are discounted and the likely additional demand from the net zero legislation is accounted for); and

- furthermore, insufficient renewable energy projects are expected to come forward to meet the 33GW of renewable energy envisaged in the NPS, the 44GW advised by the CCC as being required to meet the legally binding Fifth Carbon Budget, or any increase on this demanded by the new Net Zero target.

5.5 Policy Case for the Development

268. In addition to the above NPS policy on need, EN1 paragraph 4.1.3 makes clear that in addition to any adverse impacts of a development “*its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long term or wider benefits*” should be taken into account. Paragraph 4.1.4 makes clear that “*These may be identified in this NPS, the relevant technology-specific NPS, in the application or elsewhere (including in local impact reports)*” and paragraph 4.2.2 gives the examples that “*This information could include matters such as employment, equality, community cohesion and well-being*”. The NPS also requires, under individual topic areas, that potential benefits of a development in relation to those areas should be taken into account.

269. The proposed East Anglia TWO project includes significant benefits both embedded within the project including its design, and to be applied through mitigation plans and strategies established under the requirements of the draft DCO. Below are some of the key benefits of the development, which under NPS policy and related to other policy, should be taken into account under NPS policy, some of which address other government policy objectives as well:

- **Meeting the need for energy generation:** as set out in **section 5.1** and in overall terms meeting approximately 4% of the UK’s current cumulative deployment target for 2030;
- **Carbon dioxide emissions reduction:** During its operation, the East Anglia TWO project 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 the year 2050 must be lower than the 1990 baseline, is increased from 80% to 100%, achieving this target is key to the UK’s Paris 2015 Commitments, which pledged to achieve at least a 40% domestic reduction in greenhouse gases by 2030 compared to 1990 levels (European Commission 2017b), and the proposed East Anglia TWO project would contribute significantly towards these targets and provides the key incentive for establishment of the former East Anglia Zone

and, subsequently, the proposed East Anglia TWO project, hence a key benefit of the project is its delivery against CO₂ reductions targets;

- **Meeting internationally agreed targets for renewable energy:** in line with the Kyoto Protocol (see **section 4.1.4**), and under the Renewable Energy Directive (2009/28/EC), the UK has an established target of 20% of energy to come from renewable sources by 2020, at present whilst UK renewable energy has soared to around 28% of electricity generation, its share as a percentage of the Directive's gross final energy consumption (i.e. all energy consumption not just electricity) is at 10.2%, some way short of the 2020 target. European energy policy recognises that the use of renewable energy contributes significantly to limiting climate change, and plays a part in securing energy supply as well as creating employment in Europe;
- **Meeting UK national targets for renewable energy:** the Government transposed the Renewable Energy Directive into UK law, primarily through The Promotion of the Use of Energy from Renewable Sources Regulations 2011, and the Renewable Transport Fuel Obligations (Amendment) Order 2011, which set targets to deliver on the Renewable Energy Directive by sourcing 15% of all energy and 10% of transport fuels from renewables by 2020;
- **Biodiversity benefits:** paragraph 5.3.6 of NPS EN 1 expands on the benefits of carbon emissions reductions in the area of biodiversity, stating that the Examining Authority/SoS "*should take account of the context of the challenge of climate change: failure to address this challenge will result in significant adverse impacts to biodiversity....The benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests*", the contribution of meeting 4% of the UK's current cumulative electricity supply deployment target for 2030, and the displacement of an equivalent proportion of energy supply coming from fossil fuel burning sources, is a demonstrable benefit for biodiversity and should be taken into account;
- **Socio-economic and local businesses:** an increased use of local accommodation and businesses during off peak season for tourism is also included in **section 30.6** of ES **Chapter 30 Tourism, Recreation and Socio-Economics** as a benefit of the project, as outlined above. As context for these benefits, SPR (of which the Applicant, East Anglia TWO Limited, 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

- management base for East Anglia ONE, creating significant employment for local people and future graduates (SPR 2018);
- 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, with thousands of contractors and supply chain operators using the site every year;
 - **Employment and socio-economic:** ES *Chapter 30 Tourism, Recreation and Socio-economics* also significantly establishes that employment benefits of the project range from negligible to major beneficial, creating 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;
 - **Skills and investment:** similarly, examples of skills benefits already established by the East Anglia ONE and East Anglia THREE Projects include:
 - As part of East Anglia ONE's skills strategy, employment and reskilling opportunities in the communities most closely associated with the development are encouraged, including graduate placements and vocational placement opportunities (East Anglia ONE Ltd, 2015);
 - In 2017, SPR donated £100,000 to the ScottishPower Foundation to fund Masters Scholarships in the UK for students wishing to continue their studies in energy engineering and environmental sciences, additionally, four postgraduate students are being supported through their Masters courses by SPR at the University of East Anglia (SPR 2018);
 - In April 2018, SPR sponsored the Science, Technology, Engineering and Mathematics (STEM) zone at the International Festival of Learning East, attended by over 1,000 regional teachers (SPR 2018), the aim was to instil confidence and promote STEM subjects amongst young people, regardless of gender or background, and
 - SPR have partnered with the Cambridge Science Centre to promote STEM subjects to more than 6,000 schoolchildren, over two years, they aim to reach 1,500 local children per roadshow, with two planned per year (SPR 2018). Roadshows will be aimed at stimulating young people's interest in STEM subjects, with the hope that they inspire a new generation of engineers, scientists and mathematicians who will lead the way in renewable energy in the future.
 - **Marine archaeology:** Impacts on heritage assets include positive benefits such as perceptions of naval battlefields and other heritage assets. This is detailed in **Table 6.11 Marine Archaeology and Cultural Heritage Policy**

Compliance below addressing paragraph 5.8.3 of NPS EN-1 and in **section 16.10** of ES **Chapter 16 Marine Archaeology and Cultural Heritage**. These benefits should be taken into account.

- **Transition to a low carbon economy:** In line with the Low Carbon Transition Plan (2009) and the UK Government Carbon Budgets¹⁷ 2016, one of the key drivers of the policies and UK Government initiatives which support the development of renewable energy in the UK, Europe and further afield, is the recognition of the need to transition to low carbon economies, the generation of utility-scale quantities of electricity from renewable energy sources, such as the East Anglia TWO project, will have a significant impact on meeting these policy objectives.
270. Mitigation measures also include significant benefits. **The OLEMS** (document reference 8.7) for example, will provide benefits through consultation and involvement of the local community to optimise the effectiveness of detailed landscaping proposals.
271. In addition to ScottishPower's move to produce 100% Green Electricity, the Iberdrola group have an ongoing aspiration to deliver the United Nations' Sustainable Development Goals (SDGs) as part of their business strategy and Corporate Governance System. These 17 goals are a core part of the 2030 Agenda for Sustainable Development, and provide a shared blueprint to address global challenges such as inequality, poverty, access to education and climate change (UN 2019).
272. It is anticipated that development of the East Anglia TWO Offshore Wind Farm will directly contribute to three of the SDGs, namely:
- **Goal 3: Good Health and Wellbeing** through generating clean, renewable energy rather than fossil fuel generated energy, thus avoiding a number a pollutant harmful to human health such as nitrogen oxides (NO_x) and sulphur oxides (SO_x) (WHO 2018);
 - **Goal 7: Affordable and Clean Energy** through adding significant renewable generation capacity to local electricity grid; and
 - **Goal 9: Industry, Innovation and Infrastructure** through adding reliable, sustainable generation capacity to existing energy infrastructure.
273. The Project would contribute indirectly to a further two SDGs, namely:
- **Goal 12: Responsible Construction and Production** through avoidance of fossil fuel energy generation and harnessing renewable wind energy; and

¹⁷ <https://www.gov.uk/guidance/carbon-budgets>

- **Goal 13: Climate Action** through raising awareness of the importance of renewable energy generation, and helping to mitigate the potential negative impacts of climate change nationally and globally.

274. The SDGs provide a more holistic framework through which to consider the potential for environmental and social benefits as part of the project, and solidify the status of offshore wind as globally important to tackling climate change.

5.6 Conclusions on Need, the Case for and Benefits of the Development

275. The proposed East Anglia TWO project 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 TWO project has the potential to make a substantial contribution to UK 2030 energy targets by meeting 4% of the UK's current cumulative electricity supply deployment target for 2030 (CCC 2018). Moreover, the proposed East Anglia TWO project would have a direct positive impact by providing up to 900MW of renewable energy, securing renewable energy supply for up to 800,416 UK households. The proposed East Anglia TWO project would reduce carbon emissions and contribute to the economy by providing socio-economic and other benefits that should be taken into account under NPS and other Government policies and legislation.

276. It should be noted that provisions exist under the Land Compensation Acts for the execution of any powers of compulsory acquisition over land (including of any rights over land), with any disputes over such matters being for resolution under the Lands Tribunal. This being the case, it would be unlawful for matters of compensation to be considered either under the development consent or compulsory acquisition aspects of the examination of this application. In addition, S126 of PA2008 specifies that a Development Consent Order "*may not include provision the effect of which is to modify the application of a compensation provision except to the extent necessary to apply the provision for the compulsory acquisition of land authorised by the order*". The benefits set out in this Statement are those that are embedded in the proposed East Anglia TWO Project or derive from necessary mitigation measures.

277. This Statement and this application therefore do not entertain any matters that properly should not be taken into account in relation to Development Consent or Compulsory Acquisition matters or in relation to the recommendation and decision to be made on this application.

6 Accordance with National Policy Statements

6.0 Overview

278. The policies and plans against which the proposed East Anglia TWO project are tested are set out in **section 4.2** of this Development Consent and Planning Statement. The following sections assess the overall accordance of the project, under the topics considered in the EIA, with the relevant NPSs and the wider policy framework, where considered relevant. This also includes a consideration of the site selection process. The results of the EIA carried out in respect of these topics can be found in the ES.
279. Part 5 of EN-1 provides policy on generic impacts likely to apply to energy projects. Part 2 of both EN-3 and EN-5 provide topic specific policy on the potential impacts of offshore windfarms and onshore electricity infrastructure respectively. Collectively, these documents set out the extent of assessment expected of NSIP applicants and the primary basis on which the examination of and decision on the application will be made.

6.1 Good Design, Alternatives and Adaptation

280. Accordance of the project with NPS policy and compliance with any local policies relating to good design, alternatives and adaptation are presented in **Table 6.1**.

Table 6.1 Good Design, Alternatives and Adaption Policy Compliance

Policy	Summary	Compliance
EN-1		
<p>Section 4.4.1 and 4.4.2 Alternatives</p>	<p><i>As in any planning case, the relevance or otherwise to the decision-making process of the existence (or alleged existence) of alternatives to the proposed development is in the first instance a matter of law, detailed guidance on which falls outside the scope of this NPS. From a policy perspective this NPS does not contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option.</i></p> <p><i>However:</i></p> <ul style="list-style-type: none"> <i>• applicants are obliged to include in their ES, as a matter of fact, information about the main alternatives they have studied. This should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility;</i> <i>• in some circumstances there are specific legislative requirements, notably under the Habitats Directive, for the IPC to consider alternatives. These should also be identified in the ES by the applicant; and</i> <i>• in some circumstances, the relevant energy NPSs may impose a policy requirement to consider alternatives... (as this NPS does in Sections 5.3, 5.7 and 5.9).</i> 	<p>The siting, design and refinement of the proposed East Anglia TWO project has followed an iterative site selection process. This has taken account of environmental, physical, technical, commercial and social considerations and opportunities as well as engineering requirements. Strategic level project design alternatives are presented in section 4.4.2 of ES Chapter 4 Site Selection and Assessment of Alternatives.</p> <p>With regards to alternatives, such as under the Habitat Directive, the route of the onshore cable corridor was influenced from the onset of the project design process by the location of designated sites, 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 the interest features were found. The Applicant has committed to a reduced working width of 16.1m (reduced from 32m) within Sandlings SPA for a length up to 300m depending on the exact alignment chosen (section 22.3.3 of ES Chapter 22 Onshore Ecology).</p> <p>Please refer below to the entry in this table on EN-1 sections 5.3.7 for consideration of good design and alternatives for Biodiversity, 5.7.13 for Flood Risk and 5.9.8 and 5.9.10 for Landscape and Visual.</p>

Policy	Summary	Compliance
<p>Section 4.5.1, 4.5.2 and 4.5.3 Criteria for 'good design' for energy infrastructure</p>	<p><i>The visual appearance of a building is sometimes considered to be the most important factor in good design. But high quality and inclusive design goes far beyond aesthetic considerations. The functionality of an object — be it a building or other type of infrastructure — including fitness for purpose and sustainability, is equally important. Applying “good design” to 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. It is acknowledged, however that the nature of much energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area.</i></p> <p><i>Good design is also a means by which many policy objectives in the NPS can be met, for example the impact sections show how good design, in terms of siting and use of appropriate technologies can help mitigate adverse impacts such as noise.</i></p> <p><i>In the light of the above, and given the importance which the Planning Act 2008 places on good design and sustainability, the IPC needs to be satisfied that energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable and adaptable (including taking account of natural hazards such as flooding) as they can be. In so doing, the IPC should satisfy itself that the applicant has taken into account both functionality (including fitness for purpose and sustainability) and aesthetics (including its contribution to the quality of the area in which it would be located) as far as possible. Whilst the applicant may not have any or very limited choice in the physical appearance of some</i></p>	<p>National Grid’s Guidelines on Substation Siting and Design (The Horlock Rules) have been taken into consideration during the site selection process. The selected onshore substation location demonstrates good aesthetic as far as possible. Specifically, the selected 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, make a design based contribution to the mitigation of landscape and visual effects.</p> <p>ES Appendix 4.1 East Anglia TWO and East Anglia ONE North Onshore Substations Site Selection RAG Assessment of the ES provides a detailed narrative of how the site selection for the onshore substations was achieved. This incorporates design development considerations outlined in section 3.4 of this document Evolution and Design of the Project, which were archaeology, ecology and nature conservation, landscape and visual, hydrogeology and flood risk, engineering and design, community, property and planning.</p>

Policy	Summary	Compliance
	<p><i>energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, landform and vegetation. Furthermore, the design and sensitive use of materials in any associated development such as electricity substations will assist in ensuring that such development contributes to the quality of the area.</i></p>	
<p>4.5.4 Criteria for “good design” for energy infrastructure</p>	<p><i>For the IPC to consider the proposal for a project, applicants should be able to demonstrate in their application documents how the design process was conducted and how the proposed design evolved. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected. In considering applications the IPC should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy.</i></p>	<p>The evolution of the project design and site selection for onshore and offshore components of the proposed East Anglia TWO project is described in detail in ES Chapter 4 Site Selection and Assessment of Alternatives. The zone appraisal and planning process is described in section 4.7.2 and the reasons detailing why favoured choices were selected are outlined in section 4.10. ES Appendix 4.1 East Anglia TWO and East Anglia ONE North Onshore Substations Site Selection RAG assessment was an initial component of the consideration of alternatives and site selection. This was limited to the consideration of a single substation site and did not consider National grid or co-location. The final location and design of the onshore substations was further refined through phase 2, 3 and 3.5 consultation, preliminary environmental information and expert topic groups (section 4.9.1 of ES Chapter 4 Site Selection and Assessment of Alternatives).</p> <p>The layout of the East Anglia TWO windfarm site, including wind turbines, inter-array, platform link cables and offshore platform locations have not yet been specified. Therefore, exact locations are not included in the DCO application. This is due to the requirement for flexibility on layout pending further ground investigation, detailed design and commercial</p>

Policy	Summary	Compliance
		<p>negotiations, and is one of the purposes of developing a project design envelope. In developing the final layout, the Applicant would aim to minimise environmental impacts (e.g. to ecology, archaeology) and impacts to other users (e.g. shipping and navigation) whilst maximising energy yield and cost efficiency. This is reflected by the reduction in the northern extent of the windfarm site as described in section 3.4 Evolution and Design of the Project.</p>
<p>Section 4.5.5 Criteria for “good design” for energy infrastructure</p>	<p><i>Applicants and the IPC should consider taking independent professional advice on the design aspects of a proposal. In particular, Design Council CABE can be asked to provide design review for nationally significant infrastructure projects and applicants are encouraged to use this service.</i></p>	<p>Specialist and regulatory advice have influenced the design of the proposed East Anglia TWO project. A full summary of the consultation process over project site selection and alternatives is presented in ES Appendix 4.5 Consultation Responses.</p>
<p>Section 5.3.7 Biodiversity and geological conservation</p>	<p><i>As a general principle...development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives...where significant harm cannot be avoided, then appropriate compensation measures should be sought.</i></p>	<p>Avoiding harm to biodiversity has been incorporated into the project design process, for example by minimising the overlap of the onshore cable corridor with the Sandlings SPA and Leiston-Aldeburgh SSSI designated sites. A crossing has been chosen at the narrowest point of this overlap. The Applicant will implement further mitigation by working to a reduced working width of 16.1m (reduced from 32m) within Sandlings SPA, for a length up to 300m depending on the exact alignment chosen (section 22.3.3 of ES Chapter 22 Onshore Ecology).</p> <p>The offshore development area avoids interaction with all designated sites apart from the Outer Thames Estuary SPA which will be crossed by the export cables. Use of horizontal directional drilling at the landfall avoids direct interaction with the vegetated shingle feature of the Leiston-Aldeburgh SSSI.</p>

Policy	Summary	Compliance
		<p>There are no designated sites of geological importance within the proposed site of the East Anglia TWO project and therefore mitigation and reasonable alternatives were not required.</p> <p>Please see Table 6.4 Benthic Ecology Policy Compliance, Table 6.5 Fish and Shellfish Ecology Policy Compliance, Table 6.6 Marine Mammal Policy Compliance, Table 6.7 Offshore Ornithology Policy Compliance, Table 6.17 Onshore Ecology Policy Compliance and Table 6.18 Onshore Ornithology Policy Compliance for further demonstration of compliance against biodiversity specific policies.</p>
<p>Section 5.7.13 Flood Risk</p>	<p><i>Preference should be given to locating projects in Flood Zone 1 in England or Zone A in Wales. If there is no reasonably available site in Flood Zone 1 or Zone A, then projects can be located in Flood Zone 2 or Zone B. If there is no reasonably available site in Flood Zones 1 or 2 or Zones A & B, then nationally significant energy infrastructure projects can be located in Flood Zone 3 or Zone C subject to the Exception Test. Consideration of alternative sites should take account of the policy on alternatives set out in Section 4.4.1 and 4.4.2.</i></p>	<p>With regards to flood zones, the proposed East Anglia TWO project has been sequentially located wherever possible. As shown in ES Figure 20.2, above ground compounds / structures are located within Flood Zone 1, 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.</p> <p>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 cables will be wholly located underground with no interaction with the above ground Flood Zone.</p> <p>The temporary haul road is for access during the construction phase, as well as the CCS. Following construction, the temporary construction elements will be removed, and land returned to its present state.</p>

Policy	Summary	Compliance
		<p>On the basis of the above, it is considered that the Exception Test is not applicable to the nature of the proposed East Anglia TWO project (section 20.5.3 of ES Appendix 20.3 Flood Risk Assessment).</p> <p>Please see Table 6.15 Water Resources and Flood Risk Policy Compliance for further demonstration of compliance against flood risk specific policies.</p>
<p>Section 5.9.8 Landscape and visual</p>	<p><i>Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.</i></p>	<p>To gain a thorough understanding of the landscapes capacity to accommodate change, an assessment of the existing character has been completed for both landscape (section 29.5 of ES Chapter 29 Landscape and Visual Impact) and seascape (section 28.5 of ES Chapter 28 Offshore Seascape, Landscape and Visual Amenity) respectively.</p> <p>With regards to careful project design, the onshore substation and National Grid substation, has been sited outside the Suffolk Coast and Heaths AONB. The site selection process (see Site Selection and ES Chapter 4 Site Selection and Assessment of Alternatives) indicated the onshore substation and National Grid substation could be accommodated at the Grove Wood, Friston site without significant effects on the special qualities of the AONB.</p> <p>The sensitivity of the landscape and visual receptors in the Landscape Visual Impact Assessment (LVIA) study area has been a key consideration in the siting and design of the onshore infrastructure (section 29.4.3.2 of ES Chapter 29 Landscape and Visual Impact). Furthermore, the capacity of the landscape to accommodate the onshore infrastructure has</p>

Policy	Summary	Compliance
		<p>been assessed in relation to the natural screening afforded by landform, woodlands, trees and hedgerows.</p> <p>Additional landscape mitigation measures for the onshore substation are described in section 29.3.4 of ES Chapter 29 Landscape and Visual Impact. The extent of mitigation planting incorporated into the design is presented in ES Figure 29.11. This includes woodland planting of:</p> <ul style="list-style-type: none"> • Core native woodland; • Screen native woodland mix; • Native woodland edge mix; • Native wet woodland mix; and • Native hedgerows. <p>Photomontage visualisations showing predicted views of the onshore substation are shown without mitigation and with the landscape mitigation at 15 years post-planting in ES Figures 29.13 to 29.25.</p> <p>With regards to seascape and project design the SLVIA within ES Chapter 28 Offshore Seascape, Landscape and Visual Amenity concluded that the construction and operation of the proposed East Anglia TWO offshore infrastructure would not result in key characteristics of significantly affected areas being affected to such a degree that the seascape would become a 'windfarm seascape', where wind turbines dominate the character. Rather it would remain characterised locally as a 'seascape with windfarms'. This is an important distinction as it implies that the carrying capacity - as defined by its inherent</p>

Policy	Summary	Compliance
		<p>character - would not be exceeded by the construction and operation of the offshore infrastructure.</p> <p>The effects of the construction and operation of the East Anglia TWO offshore infrastructure, cumulatively with the East Anglia ONE North offshore infrastructure, are assessed as a 'total' cumulative effect resulting from both windfarm sites. In general, there are limited differences in the levels of magnitude of change and significance of effects set out in the project alone assessment, 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</p> <p>The embedded mitigation section in ES Chapter 28 Offshore Seascape, Landscape and Visual Amenity, describes how the offshore windfarm site was reduced in area following section 42 consultation in response to stakeholder concerns around 'curtaining effects' of offshore windfarms on the offshore horizon.</p> <p>The ES concluded that the relatively contained geographic extent of significant effects, which are largely contained to the narrow coastal edges of the Suffolk coast, such that significant effects that occur are specific to a particular area, and are not widespread. The majority of significant effects on landscape character and views/visual amenity are restricted to the immediate coastal edges of the Suffolk coastline.</p> <p>Please see Table 6.23 Seascape, Landscape and Visual Impact Assessment, and Landscape and Visual Impact</p>

Policy	Summary	Compliance
<p>Section 5.9.9 and 5.9.10 Landscape and visual</p>	<p><i>National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty. Each of these designated areas has specific statutory purposes which help ensure their continued protection and which the [Examining Authority/SoS] should have regard to in its decisions. The conservation of the natural beauty of the landscape and countryside should be given substantial weight by the IPC in deciding on applications for development consent in these areas.</i></p> <p><i>Nevertheless, the IPC may grant development consent in these areas in exceptional circumstances. The development should be demonstrated to be in the public interest and consideration of such applications should include an assessment of:</i></p> <ul style="list-style-type: none"> <i>• the need for the development, including in terms of national considerations, and the impact of consenting or not consenting it upon the local economy;</i> <i>• The cost of, and scope for, developing elsewhere outside the designated area or meeting the need for it in some other way, taking account of the policy on alternatives...; and</i> <i>• any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.</i> 	<p>Assessment Policy Compliance for further demonstration of compliance against landscape/visual specific policies.</p> <p>In order to prioritise the conservation of the natural beauty of the landscape in accordance with paragraphs 5.9.9 and 10 of NPS EN1, no elements of the proposed East Anglia TWO project, except for underground cables with no above ground infrastructure, are situated within these areas having the highest status of protection (National Parks, the Broads and AONBs).</p> <p>An iterative assessment detailing the costs of where to site the onshore substations is provided in ES Appendix 4.1 East Anglia TWO and East Anglia ONE North Onshore Substations Site Selection RAG Assessment. For onshore landfall, other alternatives have been considered, for example the siting of the landfall to the south of Sizewell B at Thorpeness is in the public interest for energy supply. This will avoid interaction with the operation of Sizewell B's Nuclear Power Station Cooling water intake/outlet. ES Appendix 4.6 Coastal Processes and Landfall Site Selection describes this iterative process in reaching this decision.</p> <p>Potential impacts on the environment have been assessed by topic within the ES Chapters. An assessment of the effect specifically on landscape is provided in section 29.6.2.2 of ES Chapter 29 Landscape and Visual Impact. There will be significant long-term and permanent impacts on a localised area to the north of Friston, however this is limited to within approximately 1km around the onshore substation and National Grid substation. Mitigation measures associated with the</p>

Policy	Summary	Compliance
		<p>onshore substation and National Grid infrastructure form part of a strategic approach to enhancing landscape character and biodiversity in the local area. ES Figure 29.11 shows how mitigation planting would contribute to the wider landscape structure of the area and has been designed to screen the onshore project substation and help consolidate green corridors for wildlife. Details of the mitigation planting are presented in section 29.3.4 of ES Chapter 29 Landscape and Visual Impact.</p> <p>During construction, there is the potential for recreational activities to be temporarily affected by the proposed East Anglia TWO project temporarily diverting Public Rights of Way (PRoW). All other interactions with public spaces such as playing fields and common land has been avoided through site selection as part of the embedded mitigation for the proposed East Anglia TWO project.</p> <p>Such impacts, albeit outside of these areas of highest protection, will be considered in the planning balance with the need for the project in accordance with EN-1 paragraphs 5.9.19 and 5.9.15-17 and as outlined in section 2 of ES Chapter 2 Need for the Project and section 5 Need and the Case for the Development of this document. These are, principally, an increasing demand for electricity whilst the UK government aims to transition to a low carbon economy and securing the UK's energy supply and security.</p> <p>Please see Table 6.23 Seascape, Landscape and Visual Impact Assessment, and Landscape and Visual Impact</p>

Policy	Summary	Compliance
		Assessment Policy Compliance for further demonstration of compliance against landscape/visual specific policies.
EN-3		
Section 2.6.27	<i>ZAP is also an opportunity for early consultation with stakeholders, including statutory consultees, about development alternatives, the scope of EIA and any Appropriate Assessment required, particularly with respect to cumulative and in-combination effects arising from those sites identified within the zone.</i>	<p>For the Zone Appraisal Process (ZAP) the developer (at that time East Anglia Offshore Wind, EAOW) undertook a Zone Environmental Assessment (ZEA) process. As part of this process there was a ZEA Expert Panel, comprising:</p> <ul style="list-style-type: none"> • Civil Aviation Authority (CAA) • Joint Nature Conservation Committee (JNCC - also representing the interests of Natural England where relevant) • Marine Management Organisation (MMO) • The Maritime and Coastguard Agency (MCA) • Trinity House. <p>The ZEA expert panel provided advice on the site selection process for windfarm sites within the former East Anglia Zone.</p>
Suffolk County Council Nature Strategy		
Protected landscapes - Recommendation 2	<i>The active partnerships in our protected landscapes should seek to ensure these areas are exemplars of landscape scale conservation. Where development is proposed in these areas, such as Sizewell C in the Suffolk Coast and Heaths AONB, they should work to ensure they are of the highest quality as 'environmental exemplars'.</i>	<p>Consultation with the LVIA expert topic group I (comprising representatives from Suffolk County Council, Suffolk Coastal District Council, Waveney District Council, Norfolk County Council, Great Yarmouth Borough Council, the Broads National Park, Suffolk Coast and Heaths AONB unit, Natural England and Historic England) led to agreement of viewpoint locations for use in the LVIA of the onshore substation and National Grid Infrastructure. It was also agreed that there would be no above</p>

Policy	Summary	Compliance
		<p>ground infrastructure within the AONB. The site selection process (see Site Selection) subsequently determined that the substation should not be in the AONB. This is described in section 29.2 of ES Chapter 29 Landscape and Visual Impact.</p> <p>Embedded mitigation to minimise potential impacts are described in section 29.3.3 in ES Chapter 29 Landscape and Visual Impact. This includes:</p> <ul style="list-style-type: none"> • Site selection incorporating use of the Horlock Rules for onshore substations and National Grid infrastructure; • Undergrounding of onshore cables; • Mitigation planting of the landscape; • Selection of the landfall between Sizewell and Thorpeness and location of the transition bays suitably set back from coastal cliffs; • Avoidance of landscape designations; • Avoidance of permanently lit onshore substation at night <p>Section 29.6 of ES Chapter 29 Landscape and Visual Impact provides a specific assessment on Suffolk Coast and Heaths AONB and other potential receptors. Potential impacts include:</p> <ul style="list-style-type: none"> • Effects on landscape character; • Effects on landscape elements; • Effects on special qualities; and

Policy	Summary	Compliance
		<ul style="list-style-type: none"> Visual effects <p>Where significant impacts are predicted, additional landscape mitigation (to embedded) measures are described in section 29.3.3 of ES Chapter 29 Landscape and Visual Impact. This information is also summarised in Table 29.19 of ES Chapter 29 Landscape and Visual Impact.</p>
Energy infrastructure – Recommendation 15	<p><i>New energy infrastructure should be sensitive to place. Relevant policies as well as national and local guidance, appropriate biological data and Suffolk’s Landscape Character Assessment should be used to assess suitability of new energy infrastructures, and other developments, to particular places...</i></p>	<p>Relevant policies applicable to LVIA in the UK such as the overarching NPSs for Renewable Energy (EN-1, EN-3 and EN-5) are underpinned by the European Landscape Convention which is devoted to the protection, management and planning of all landscapes in Europe (section 29.4.1.1 of ES Chapter 29 Landscape and Visual Impact). Industry best practice guidance has been followed as part of the methodology for the ES assessment (section 29.4.1.2). The Suffolk Landscape Assessment has been used as a primary data source as per section 29.4.2.</p> <p>Key potential landscape and visual effects arise from the construction and operation of onshore infrastructure:</p> <ul style="list-style-type: none"> Construction of landfall at inland area to north of Thorpeness and south of Sizewell – HDD compound and two transition bays. Direct physical landscape changes from the onshore cable route, connecting construction works at landfall to the north of Thorpeness, with the onshore substation to the north of Friston.

Policy	Summary	Compliance
		<ul style="list-style-type: none"> Construction and operation of onshore substation and national grid substation to the north of Friston. <p>Mitigation measures have taken into account the ‘Statements of Environmental Opportunity’ (SEO’s) as set out in Natural England’s ‘National Character Area Profiles’ to ensure that the proposals are sensitive to place. SEO’s are described in section 29.3.4 of ES Chapter 29 Landscape and Visual Impact.</p> <p>Effects on landscape character is assessed in Appendix 29.2 Landscape Assessment. This is further summarised in section 29.6 and ES Figure 29.2.</p>
Suffolk Coastal District Council Core Strategy and Development Management Policy		
Strategic Policy SP1 – Sustainable Development	<p><i>Central to the Core Strategy for the future of the Suffolk Coastal District is the achievement of sustainable development. The Strategy in this respect will be to:</i></p>	Please see compliance detailed in the rows below.
	<p><i>Mitigate against and adapt to the effects of climate change</i></p>	<p>Section 2.2 of ES Chapter 2 Need for the Project details how this project aims to mitigate against the effects of climate change. Specifically:</p> <ul style="list-style-type: none"> A technology with potential to make significant and rapid contributions to national renewable energy targets. Very low lifetime CO₂ emissions per unit of electricity generated.

Policy	Summary	Compliance
		<p>Section 5 of this document <i>Need and the Case for the Development</i> provides further context and strategic need for the proposed East Anglia TWO project.</p>
	<p><i>Ensure the provision of the appropriate infrastructure in order to support existing and proposed communities;</i></p>	<p>Section 2.2.3 of ES Chapter 2 Need for the project describes the need for energy security and the necessary infrastructure for existing and future communities relying on energy consumption. This project will help in achieving this objective.</p>
	<p><i>Give priority to re-using previously developed land and buildings in and around built-up areas, where possible ahead of greenfield sites;</i></p>	<p>Section 4.4 of ES Chapter 4 Site Selection Process and Consideration of Alternatives describes the process undertaken to prioritise existing land and buildings. Existing land at Sizewell for onshore infrastructure was considered early in the process (See Table 4.2 of ES Chapter 4 Site Selection Process and Consideration of Alternatives). Through an iterative consultation process the locations of the onshore infrastructure were further refined.</p>
	<p><i>Promote the use of sustainable methods of construction, including materials, energy efficiency, water recycling, aspect etc; and</i></p>	<p>Section 20.3.3 of ES Chapter 20 Water Resources and Flood Risk details embedded mitigation to promote water recycling. Efficiencies relating to the locations of infrastructure are described in section 4.7.3 and 4.7.4 of ES Chapter 4 Site Selection Process and Consideration of Alternatives. This specifically relates to the optimal location for connection points and onshore connection design to achieve economical electricity transmission. The onshore substation has been positioned as close as possible to the existing National Grid overhead lines to reduce cabling requirements. The onshore substation and National grid substation have also been</p>

Policy	Summary	Compliance
Strategic Policy SP1A – Presumption in Favour of Sustainable Development	<p><i>When considering development proposals, the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the NPPF. It will always work proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.</i></p>	<p>positioned as close as possible. This is described further in section 4.9.</p> <p>Section 30.2 of ES Chapter 30 Tourism, Recreation and Socio-Economics details the pro-active local stakeholder consultation process. Section 30.4 captures the assessment methods to ensure economic, social and environment are considered. Potential socio-economic benefits are described in section 30.6 in relation to the local labour market and increased tourism employment.</p> <p>ES Plate 30.1 illustrates how employment opportunities such as those described above are balanced with housing and environmental capacity. The impacts described and associated mitigation in the relating ES chapters demonstrate that this project will not ‘overshoot’ the zone described as ‘the safe and just space for humanity’ and ‘regenerative and distributive economy’.</p> <p>Table 30.48 to Table 30.52 of ES Chapter 30 Tourism, Recreation and Socio-economics show that on average the proposed East Anglia TWO project would create 265 Full Time Employment (FTE) per year. Of this 86 FTE could be created locally (ES Table 30.49) and a further 127 FTE would be created regionally (ES Table 30.50) which equates to 213 FTE across NALEP (ES Table 30.51). The remaining 62 FTE would be sourced outside of NALEP (ES Table 30.52). 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. Environmental conditions are discussed, and potential project impacts assessed, in the relevant compliance tables in this chapter. Please refer to Table 6.3</p>

Policy	Summary	Compliance
		<p>Marine Geology Policy Compliance, Table 6.4 Marine Water and Sediment Quality Policy Compliance, Table 6.5 Benthic Ecology Policy Compliance, Table 6.6 Fish and Shellfish Ecology Policy Compliance, Table 6.7 Marine Mammals Policy Compliance, Table 6.8 Offshore Ornithology Policy Compliance, Table 6.17 Land Use Policy Compliance, Table 6.18 Onshore Ecology Policy Compliance and Table 6.19 Onshore Ornithology Policy Compliance.</p>
<p>Strategic Policy SP15 – Landscape and Townscape</p>	<p><i>The policy of the Council will be to protect and enhance the various landscape character areas within the district either through opportunities linked to development or through other strategies.</i></p> <p><i>In addition to the protected landscape of the AONB, the valleys and tributaries of the Rivers Alde, Blyth, Deben, Fynn, Hundred, Mill, Minsmere, Ore, Orwell and Yox, and the designated Parks and Gardens of Historic or Landscape Interest are considered to be particularly significant.</i></p>	<p>Section 29.5 of ES Chapter 29 Landscape and Visual Impact considers these landscape designations. Potential effects are detailed in section 29.6.</p> <p>The only relevant valley/tributary is that of the River Hundred which has been identified as a Special Landscape Area (SLAs). The Hundred River Valley SLA, is located along the Hundred River through Aldringham, as shown in ES Figure 29.3.</p> <p>With mitigation, landscape and visual impacts from the East Anglia TWO project alone are assessed as not being significant for the Hundred River Valley.</p> <p>Landscape impacts are assessed as significant for sections of the Hundred River Valley when considered cumulatively with East Anglia ONE North and with mitigation applied, specifically at a local area at Raidsend due to the felling of mature woodland. Visually, the impact will be significant where the onshore cable route crosses the Hundred River and Aldeburgh Road, where the construction will be visible in views from nearby dwellings and felling of a notable area of mature woodland at Raidsend is required.</p> <p>Where significant impacts are predicted, additional landscape mitigation (to embedded) measures are described in section 29.3.3 of ES Chapter 29 Landscape and Visual Impact. This</p>

Policy	Summary	Compliance
		<p>information is also summarised in Table 29.19 of ES Chapter 29 Landscape and Visual Impact to identify the successful mitigation and the reduction of the significant effect.</p>
<p>Development Management Policy DM21 – Design Aesthetics</p>	<p><i>Development will be permitted where the following criteria are met:</i></p> <ul style="list-style-type: none"> <i>Layouts should incorporate and protect existing site features of landscape, ecological, heritage or amenity value as well as enhance such features e.g. habitat creation; and</i> <i>Attention must be given to the form, scale, use, and landscape of the spaces between buildings and the boundary treatment of individual sites, particularly on the edge of settlements.</i> 	<p>Section 29.3.4 of ES Chapter 29 Landscape and Visual Impact describes mitigation measures which form part of a strategic approach to enhancing landscape character and biodiversity in the local area. It also considers onshore substation building characteristics.</p> <p>The extent of mitigation planting incorporated into the design is presented in ES Figure 29.11 and mostly comprises indigenous woodland species planted around the onshore substation and National Grid substation. The Outline Landscape and Ecological Management Strategy (OLEMS) proposes four types of woodland planting, consisting of a core native woodland, native woodland edge, native wet woodland mix and screen native woodland mix.</p> <p>Mitigation measures are described in more detail in the OLEMS (document reference 8.7) with regard to the re-establishment of hedgerows and planting of mitigation landscaping.</p> <p>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.</p> <p>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</p>

Policy	Summary	Compliance
		hedgerow and tree replanting locations and planting mixes will be specified in the planting schedule as part of the OLEMS (document reference 8.7). 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.
Suffolk Coastal Local Plan		
Policy SCLP3.5- Proposals for Major Energy infrastructure Projects	<p><i>In its role either as determining authority for development under the Town and Country Planning Act, or as consultee on Nationally Significant Infrastructure Projects, the Council will take into consideration the nature, scale, extent and potential impact of proposals for Major Energy Infrastructure Projects, including cumulative impacts.</i></p> <p><i>The Council will work in partnership with the scheme promoter, local communities, National Grid, Government, NALEP and relevant local authorities to ensure significant local community benefits and an ongoing legacy of the development is achieved as part of any major infrastructure projects.</i></p> <p><i>Proposals for Major Infrastructure Projects across the District and the need to mitigate the impacts arising from these will be considered against the following policy requirements:</i></p>	See responses to specific policy requirements in rows below.
	<p><i>Relevant Neighbourhood Plan policies, strategies and visions;</i></p>	With regards to neighbourhood plan policies such as Leiston Neighbourhood Plan, the location of onshore infrastructure avoids built up areas where possible. The wider onshore development corridor runs south of Leiston. The site selection has been refined based on consultation with local stakeholders

Policy	Summary	Compliance
		outlined in section 4.5 of ES Chapter 4 Site Selection and Assessment of Alternatives .
	<p><i>Appropriate packages of local community benefit to be provided by the developer to offset and compensate the burden and disturbance experienced by the local community for hosting major infrastructure projects;</i></p>	<p>During construction, potential benefits to the local community resulting from the proposed East Anglia TWO project include the increased use of local accommodation and businesses during off peak season for tourism. Moderate benefits are predicted for the local and regional labour market as described in section 30.6 of ES Chapter 30 Tourism, Recreation and Socio-Economics.</p> <p>During operation, there are predicted long term employment opportunities for the regional labour market. This is assessed as major beneficial (section 30.10) and will help offset the disturbance caused during the construction phase of the proposed East Anglia TWO project.</p>
	<p><i>Requirement for a robust Environmental Impact Assessment and Habitats Regulations Assessment;</i></p>	<p>The Information to Support Appropriate Assessment Report (document reference 5.3) accompanies the DCO application. The assessments covering offshore ornithology, marine mammals and onshore ornithology) conclude that there will be no Adverse Effect on Integrity for any Natura 2000. Likely significant effects upon other marine species, marine habitats and onshore habitats and species were screened out.</p>
<p><i>Appropriate flood and erosion defences, including the effects of climate change are incorporated into the project to protect the site during the construction, operational and decommissioning stages;</i></p>	<p>ES Appendix 20.3 Flood Risk Assessment of the ES provides a detailed description of the baseline flood risk, and the implications of the project. Anticipated trends in the baseline condition, i.e. the potential effects of climate change are described in section 20.5.5.1 of ES Chapter 20 Water Resources and Flood Risk. The potential impact of flooding</p>	

Policy	Summary	Compliance
		<p>during construction and operation is assessed as being minor adverse (section 20.6 of the ES).</p> <p>Potential effects have nonetheless been incorporated in the project design. The proposed onshore development area is mostly located within Flood Zone 1, at low risk of flooding from fluvial or tidal sources, and as such the sequential approach has been used in the location of the above ground structures (section 20.8.1 of ES Appendix 20.3 Flood Risk Assessment). Temporary damming and diversions will also be implemented where necessary during crossing of small watercourses during construction.</p> <p>Flood defences for the substation and national grid works have been designed in accordance to best practice and are of high standard. This includes maximising amenity and biodiversity benefits, whilst delivering the key objectives of managing flood risk and water quality (see section 3.5.12 of the OLEMS (document reference 8.7)).</p> <p>The OLEMS covers proposals for an additional SuDS basin (or similar) to assist in the management of surface water inflows to the substation area, which will in turn to reduce flood risk in the village of Friston. The outline design of the onshore substation drainage has inherent benefit to reducing downstream flood risk in the village of Friston. The SuDS basins are designed to contain a 1 in 200-year storm event. The English standard is to design for a 1 in 100-year (+20% for climate change) storm event, so the SuDS basins are larger than required for any potential impact associated with storm event runoff.</p>

Policy	Summary	Compliance
	<p><i>Appropriate road and highway measures are introduced (including diversion routes) for construction, operational and commercial traffic to reduce the pressure on the local communities;</i></p>	<p>An access strategy has been followed which selects routes to reduce the impact of HGV traffic upon most sensitive communities. All HGV traffic is therefore required to travel via the A1094 or B1122 from the A12. No HGV traffic is permitted via alternative routes such as the B1121 or B1110 or to travel through Leiston or Coldfair Green (section 26.3.3 of ES Chapter 26 Traffic and Transport).</p> <p>Other DCO application documents such as the Outline Public Rights of Way Strategy (PROWS) (document reference 8.4) and Outline Construction Traffic Management Plan (CTMP) (document reference 8.9) detail additional road and highway measures.</p>
	<p><i>The development and associated infrastructure proposals to deliver positive outcomes for the local community and surrounding environment;</i></p>	<p>Potential socio-economic, skills and employment benefits associated with the project are described in Section 30.6 of ES Chapter 30 Tourism, Recreation and Socio-Economics. Particular attention is given to the opportunity for construction and accommodation employment in rural Suffolk in addition to long term employment opportunities. There is scope for the pipeline of employment generated by the proposed East Anglia TWO project and by other wind farm projects in the area to be long term, leading to secondary economic benefits including investor confidence and clustering of supply chain businesses (section 30.7.2.1.2).</p> <p>With regards to positive outcomes for the surrounding environment, the project design has been developed with this in mind. Undergrounding of onshore cables and mitigation measures associated with the onshore substation and National Grid infrastructure form part of a strategic approach to</p>

Policy	Summary	Compliance
		<p>enhancing landscape character in the local area. ES Figure 29.11 shows how mitigation planting would contribute to the wider landscape structure of the area and has been designed to screen the onshore project substation and help consolidate green corridors for wildlife. Details of the mitigation planting are presented in section 29.3.4 of ES Chapter 29 Landscape and Visual Impact.</p>
	<p><i>Economic and community benefits where feasible are maximised through agreement of strategies in relation to employment, education and training opportunities for the local community;</i></p>	<p>During construction, potential economic benefits to the local community resulting from the proposed East Anglia TWO project include the increased use of local accommodation and businesses during off peak season for tourism. Moderate benefits are predicted for the local and regional labour market as described in section 30.6 of ES Chapter 30 Tourism, Recreation and Socio-Economics.</p> <p>During operation, there are predicted long term employment opportunities for the regional labour market. This is assessed as major beneficial (section 30.10) and will help offset the disturbance caused during the construction phase of the proposed East Anglia TWO project.</p> <p>As part of the East Anglia Offshore Wind Projects Skills Strategy the Applicant is promoting, employment and reskilling opportunities in the communities most closely associated with the development are encouraged, including graduate placements and vocational placement opportunities for projects under construction and/or in operation</p>
	<p><i>Measures to ensure the successful decommissioning and restoration of the site through appropriate landscaping is</i></p>	<p>Full detail and scope of the decommissioning works will be determined by the relevant legislation and guidance at the time of decommissioning and agreed with the regulator (section</p>

Policy	Summary	Compliance
	<p><i>delivered to minimise and mitigate the environmental and social harm caused during operational stages of projects;</i></p>	<p>29.6.3 of ES Chapter 29 Landscape and Visual Impact Assessment). This will include considerations such as appropriate landscaping and will be implemented post consent via the Landscape Mitigation Plan (LMP) as described in the OLEMS (document reference 8.7).</p>
	<p><i>Cumulative impacts of projects are taken into account and do not cause significant adverse impacts; and</i></p>	<p>Cumulative impacts of the proposed project with other projects is considered in ES Chapter 17 Infrastructure and Other Users. Furthermore, there is a ‘Cumulative Impacts’ chapter in each ES chapter. No significant cumulative impacts are predicted. Cumulative effects on local nature designations are considered in the Information to Support Appropriate Assessment Report (document reference 5.3)).</p>
	<p><i>Appropriate monitoring measures during construction, operating and decommissioning phases to ensure mitigation measures remain relevant and effective.</i></p>	<p>Outline management plans, across a number of environmental topics, have been submitted with the DCO application. These outline management plans contain key principles that provide the framework for any monitoring that could be required. The requirement for a final appropriate design and scope of monitoring will be agreed with the relevant stakeholders and included within the relevant management plan(s), submitted for approval, prior to construction works commencing.</p>
<p>Policy SCLP 3.6 - Infrastructure Provision</p>	<p><i>Developers must consider the infrastructure requirements needed to support and service the proposed development. All development will be expected to contribute towards infrastructure provision to meet the needs generated.</i></p>	<p>The required onshore and offshore infrastructure is described in ES Chapter 6 Project Description, sections 6.4 – 6.7.</p> <p>With regards to supporting and servicing the proposed East Anglia TWO project, impacts on existing infrastructure such as roads are covered in ES Chapter 26 Traffic and Transport, Appendix 26.1 of ES Chapter 26 Traffic and Transport provides details of where temporary parking suspension would</p>

Policy	Summary	Compliance
		<p>be required to accommodate the movement of AILs during construction.</p> <p>ES Chapter 26 Traffic and Transport Section 26.6.2 provides a summary of the likely operational requirements. During the operational phase, vehicle movements will be limited to occasional repair, maintenance and inspection visits at the substation and onshore cable route.</p> <p>As described in ES Chapter 14 Shipping and Navigation, no specific ports have been identified as a construction or decommissioning base for the offshore components. It is estimated that there will be a maximum of 687 vessel round trips per annum associated with operation and maintenance of the windfarm site.</p>
Policy SCLP11.2 – Residential Amenity	<p><i>When considering the impact of development on residential amenity, the Council will have regard to the following:</i></p> <p><i>Privacy/overlooking;</i></p>	<p>See responses to breakdown of privacy/overlooking below.</p>
	<p><i>Outlook;</i></p>	<p>Potential effects with regards to privacy and overlooking are detailed in section 29.6 of ES Chapter 29 Landscape and Visual Impact. Table 29.19 describes potential mitigation measures.</p> <p>With regards to outlook and the construction of the onshore cable route, there will be a significant, short term and temporary loss of visual amenity experienced by residents from the very edges of Aldringham, Coldfair Green and Friston that are adjacent to and have overlooking views. The same is true for views from adjacent roads; B1353 Thorpeness Road, B1122</p>

Policy	Summary	Compliance
		<p>Aldeburgh Road, B1069 Snape Road and B1121 Aldeburgh – Saxmundham Road.</p> <p>The majority of the residences in these areas have no direct views of the onshore infrastructure and impacts will therefore not be significant for these. This is also the case for stretches of road not mentioned above.</p> <p>With regards to the <i>construction</i> of the onshore substation and national grid substation, agricultural land and large woodland blocks at Grove Wood and Laurel Covert will provide screening from the east (such as from Knodishall/Coldfair Green).</p> <p>For the alternative onshore substation location (i.e. the western location), the significance of effects would largely be the same as those assessed for the intended development strategy. There will be significant effects at some viewpoints, representative of residential and other receptors, however this will be short term and temporary.</p> <p>In terms of visual effects during operation, for most receptors, effects would be the same as those assessed for the intended development strategy. Viewpoint 4 (Friston, Grove Road, walkers, cyclers and residents) would have a reduction in significance of effect from significant to not significant for the alternative substation location.</p> <p>Despite these levels of natural screening and mitigative planting to be conducted under the Outline Landscape Mitigation Plan (OLMP) within the OLEMS (document reference 8.7) and the degree of landscape integration achieved over time, the onshore substation and National Grid infrastructure are assessed as having significant, long-term and</p>

Policy	Summary	Compliance
		<p>permanent visual effects on views experienced by people walking on the local PRow network to the north of Friston, residents of scattered rural dwellings near Friston / Fristonmoor and localised parts of the village of Friston.</p> <p>Where there are significant visual amenity impacts for residents of North Friston and rural dwellings, during both <i>construction</i> and <i>operation</i> of the substations, they will be effectively mitigated at approximately 15 years post construction. This will be achieved by the notable screening provided by fully established trees coming into maturity, which are assumed to be retaining good vigour and starting to achieve good height with tree crowns spreading. This is described further in the OLEMS (document reference 8.7). Visual amenity will therefore remain acceptable.</p>
	<p><i>Noise and disturbance</i></p>	<p>Noise and vibration impacts are assessed in section 25.6 of ES Chapter 25 Noise and Vibration. Embedded mitigation is listed in section 25.3.3.</p> <p>After enhanced mitigation measures such as noise barriers and temporary spoil bunds, construction impacts arising from the onshore cable route are assessed as negligible to minor significance. Noise impacts during construction of the substation will also be negligible. (ES Chapter 25 Noise and Vibration sections 25.6.1.1 and 25.6.1.2).</p> <p>Traffic noise impacts (ES Chapter 25 Noise and Vibration sections 25.6.1.3) at worst will be of minor adverse significance and therefore will not create unacceptable losses to amenity.</p>

Policy	Summary	Compliance
	<p><i>Light spillage, air quality and other forms of pollution; and</i></p>	<p>Section 19.6 of ES Chapter 19 Air Quality considers air pollution impacts. Human and ecological receptor locations were selected based on their proximity to the onshore construction works and/or road links affected by the proposed East Anglia TWO project, where the potential effect of development-generated emissions on local air pollution would be most significant. Mitigation measures are detailed in section 19.6.1.1.5. Traffic data for future year scenarios were derived using growth projections provided by Suffolk County Council which take into account Local Plan allocations. See ES Chapter 26 Traffic and Transport.</p> <p>After embedded mitigation measures are applied, the risk of dust impacts is considered to be low. The additional mitigation measures outlined in section 19.6.1.1.5 of ES Chapter 19 Air Quality will also be applied to ensure dust impacts remain acceptable.</p> <p>The assessment conducted in section 19.6.1.2 concluded that development-generated traffic impacts upon local air quality are not significant.</p>
	<p><i>Safety and security.</i></p>	<p>Safety and security measures are outlined in the DCO application document Safety Zone Assessment (document reference 7.2).</p>
	<p><i>Development will be acceptable where it would not cause an unacceptable loss of amenity to adjoining or future occupiers of development.</i></p>	<p>Impacts regarding outlook, noise and disturbance, light, air quality, as outlined above will not cause an unacceptable loss of amenity to adjoining or future occupiers of development. Safety and security will also not be affected.</p>

Policy	Summary	Compliance
WDC New Local Plan		
Policy WLP1.3 - Infrastructure	<i>Developers must consider the infrastructure requirements needed to support and service the proposed development. All development will be expected to contribute towards infrastructure provision to meet the needs generated.</i>	<p>The required onshore and offshore infrastructure is described in ES Chapter 6 Project Description, sections 6.4 – 6.7. This includes requirements to service the proposed development.</p> <p>With regards to facilitating the construction of the onshore and offshore infrastructure, impacts on existing infrastructure such as roads are covered in ES Chapter 26 Traffic and Transport. Appendix 26.1 of ES Chapter 26 Traffic and Transport provides details of where temporary parking suspension would be required to accommodate the movement of ALLs during construction.</p> <p>ES Chapter 26 Traffic and Transport Section 26.6.2 provides a summary of the likely operational requirements. During the operational phase, vehicle movements will be limited to occasional repair, maintenance and inspection visits at the substation and onshore cable route.</p> <p>As described in ES Chapter 14 Shipping and Navigation, no specific ports have been identified as a construction or decommissioning base for the offshore components. It is estimated that there will be a maximum of 687 vessel round trips per annum associated with operation and maintenance of the windfarm site.</p>
Policy WLP8.25 – Coastal Change Management	<i>Essential infrastructure, including transport infrastructure, utility infrastructure and wind turbines will only be permitted in the Coastal Change Management Area where no other sites outside of the Area are feasible and there is a management</i>	As demonstrated in ES Figure 4.5 , none of the proposed East Anglia TWO site boundary falls within the Coastal Change Management Area of the southernmost region in the policy map, Southwold and Reydon.

Policy	Summary	Compliance
	<p><i>plan in place to manage the impact of coastal change including their future removal and replacement.</i></p> <p><i>All planning applications for development within the Coastal Change Management Area and 30 metres inland should be accompanied by a Coastal Erosion Vulnerability Assessment which demonstrates that the development will not result in an increased risk to life or property.</i></p>	<p>Section 4.4 of ES Chapter 4 Site Selection and Assessment details the consideration of alternative sites for the project.</p> <p>The project has been designed so that it is not vulnerable to coastal change or climate change. The project will not affect the Shoreline Management Plan, and allowance has been made for predicated erosion rates during the project design (further detail is provided in ES Chapter 4 Site Selection and Assessment of Alternatives).</p> <p>The assessment of potential construction and operation and maintenance impacts are described in ES Chapter 7 Marine Geology, Oceanography and Physical Processes sections 7.6.1 and 7.6.2 respectively. Embedded mitigation to minimise potential impacts at the coast of cable installation and operation are described in section 7.3.3.</p>
<p>Policy WLP8.27 – Renewables and Low Carbon Energy</p>	<p><i>Renewable and low carbon energy schemes, including wind energy schemes will be permitted where the proposal is in a suitable area for renewable and low carbon energy as identified in a Neighbourhood Plan.</i></p> <p><i>Renewable and low carbon energy schemes, with the exception of wind energy schemes, will also be permitted where there are no significant adverse effects on the amenities of nearby properties or businesses, there are no adverse safety impacts and no significant adverse effects on the transport network.</i></p> <p><i>Cumulative effects and the impact of ancillary infrastructure will form part of the assessment for planning applications for renewable and low carbon energy developments.</i></p>	<p>With regards to Neighbourhood Plans (namely Leiston Neighbourhood Plan), the site selection has been refined based on consultation with local stakeholders outlined in section 4.5 of ES Chapter 4 Site Selection and Assessment of Alternatives. Onshore development avoids Leiston, running to the south.</p> <p>Impacts on road safety are assessed in section 26.6.1.10 in ES Chapter 26 Traffic and Transport. A package of mitigation measures has been developed to reduce the risk to the travelling public and construction employees (section 26.6.1.10.2). Impacts are assessed as minor adverse.</p> <p>Cumulative effects are considered in each ES chapter.</p>

Policy	Summary	Compliance
Policy WLP 8.29 - Design	<i>Development proposals will be expected to demonstrate high quality design which reflects local distinctiveness. In so doing proposals should:</i>	Please see rows below for demonstration of compliance.
	<i>Demonstrate a clear understanding of the form and character of the built and natural environment and use this understanding to complement local character and distinctiveness;</i>	<p>Section 29.5 of ES Chapter 29 Landscape and Visual Impact considers the existing local character and natural baseline. The principle landscape element of the proposed East Anglia TWO onshore site is modified agricultural land which has been cultivated for many centuries. It is therefore not as sensitive to construction impacts as land that remains natural or semi-natural such as the heathlands nearer the coast. Routing of the onshore cable route therefore ensures that the majority of the route will pass through this agricultural land.</p> <p>With regards to landscape character, the eastern part of the LVIA study area is located within the Suffolk Coast and Heaths National Character Area (NCA) (82) and the western part is located in the South Norfolk and High Suffolk Claylands NCA (83) as shown on ES Figure 29.2. The eastern part is characterised by fragmented heath and farmland landscape that extends inland from the coast. Shingle beaches are also distinctive features. The western part is characterised by farming landscape with strong rural character, irregular field patterns, small settlements and hedgerows/woodlands confining views.</p> <p>Section 29.6 assesses the potential project impacts on local character. In order to complement the existing local landscape and character, mitigative replanting forms part of a strategic approach to enhance landscape character (section 29.3.3).</p> <p>Section 29.3.4 describes mitigation through detailed landscape</p>

Policy	Summary	Compliance
	<p><i>Take account of any important landscape or topographical features and retain and/or enhance existing landscaping and natural and semi-natural features on site; and</i></p>	<p>proposals and considers the importance of native woodland and hedgerow species.</p> <p>Section 29.3.4 of ES Chapter 29 Landscape and Visual Impact describes mitigation measures which form part of a strategic approach to enhancing landscape character and features in the local area.</p> <p>Landscaping and replanting is required where there will be scrub/heathland habitat and hedgerow loss from the construction of the onshore substation and HDD compound. To facilitate the onshore cable crossing at Aldeburgh road, there will be a loss of up to 0.9ha of mature woodland. Mitigative planting will be implemented where possible in advance at the start of the construction phase.</p>
	<p><i>Include hard and soft landscaping schemes to aid the integration of the development into its surroundings.</i></p>	<p>There are existing hedgerows and woodland blocks such as Grove Wood and Laurel Covert surrounding the proposed site for the onshore substation location and National Grid substation. These existing landscape features are being used to help screen and integrate these structures into their surroundings (section 29.3.4 or ES Chapter 29 Landscape and Visual Impact).</p> <p>Full details of the landscaping schemes are described in the OLEMS (document reference 8.7). This provides further detail on the re-establishment of hedgerows and planting of mitigation landscaping. Mitigation measures will be designed in detail post-consent as part of the discharge of DCO requirements.</p>

Policy	Summary	Compliance
Shoreline Management Plan 7 – Lowestoft Ness to Felixstowe Landguard Point		
<p>Suffolk SMP2 Sub-cell 3c – Dunwich Cliffs to Thorpeness</p>	<p><i>Stakeholder objectives of this policy are to:</i></p> <p><i>To maintain the location and safe operation of Sizewell Power Station and any future development of the site; and</i></p> <p><i>To support appropriate ecological adaptation of this habitat and in particular the Minsmere RSPB reserve; and</i></p> <p><i>To support adaptation of the Sizewell community and individual interests along the frontage to any change.</i></p>	<p>As shown in ES Figure 4.5, the onshore development area for the proposed East Anglia TWO project does not encroach onto the Sizewell Power Station site. The safe running of the power station has been factored in to site selection. An assessment is provided in ES Appendix 4.6 Coastal Processes and Landfall Site Selection which carefully considered the potential impact Sizewell’s cooling water infrastructure. The landfall was subsequently located at the southern end of the development corridor (section 4.8 of ES Chapter 4 Site Selection and Assessment of Alternatives), south of the Coralline Crag geological interest feature, which is recognised as playing an important role in influencing shoreline behaviour for Sizewell.</p> <p>With regard to Dunwich Cliffs, and the Minsmere RSPB, ecologically there will be no encroachment or impact as a result of the proposed East Anglia TWO project.</p> <p>The coast is relatively stable with rates of cliff recession being less than 0.1m/year (section 7.5.8 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes). No impacts are predicted for changes to coastal morphology or sediment transport (section 7.6) which could affect the frontage.</p>

6.2 Marine Geology, Oceanography and Physical Processes

281. Compliance with policies relating to Marine Geology, Oceanography and Physical Processes are presented in **Table 6.2**. Full details of the assessment and potential impacts on the marine physical environment that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 7 Marine Geology, Oceanography and Physical Processes**. Where other chapters are relevant these have also been signposted.
282. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.2** below in relation to marine geology, oceanography and physical processes.

Table 6.2 Marine Geology, Oceanography and Physical Processes Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.3.13 Regional and Local Sites	<i>Sites of regional and local biodiversity and geological interest, which include Regionally Important Geological Sites, Local Nature Reserves and Local Sites, have a fundamental role to play in meeting overall national biodiversity targets; contributing to the quality of life and the well-being of the community; and in supporting research and education. The IPC should give due consideration to such regional or local designations. However, given the need for new infrastructure, these designations should not be used in themselves to refuse development consent.</i>	The East Anglia TWO windfarm site and offshore cable corridor do not overlap with any international, national or local sites designated for sea bed features. The offshore cable corridor is adjacent to sand banks which are supporting features of the Outer Thames Estuary SPA (section 7.5.9 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes). A HRA screening exercise was undertaken and concluded no impact on any sites designated for sea bed or benthic ecology features (section 7.5.9).
Section 5.3.15 Biodiversity within Developments	<i>Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design. When considering proposals, the IPC should maximise such opportunities in and around developments, using requirements or planning obligations where appropriate.</i>	As part of the project design, a commitment has been made to install the export cable at the landfall using HDD techniques. The HDD pop-out location would be in water depths greater than 2m LAT and to the south of Coralline Crag geological feature, thereby minimising disruption to the circulatory sediment transport pathways (section

Policy	Summary	Compliance
		<p>7.6.2.7 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes).</p>
<p>Section 5.5.10</p>	<p><i>'The IPC should be satisfied that the proposed development will be resilient to coastal erosion and deposition, taking account of climate change, during the project's operational life and any decommissioning period.'</i></p>	<p>The existing coastal erosion trends are described in section 7.5.8 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes.</p> <p>Potential impacts relating to coastal erosion and climate change have been considered during the assessment (section 7.5.8). The proposed East Anglia TWO project has been designed so that it is resilient to coastal change or climate change.</p> <p>No implications on SMPs, and any relevant Marine Plans and capital programmes for maintaining flood and coastal defences have been identified in the ES.</p> <p>No significant impacts are identified in the ES during the project's operational life and decommissioning therefore no additional mitigation has been proposed (section 7.11).</p>
<p>Section 5.5.11</p>	<p><i>'The IPC should not normally consent new development in areas of dynamic shorelines where the proposal could inhibit sediment flow or have an adverse impact on coastal processes at other locations. Impacts on coastal processes must be managed to minimise adverse impacts on other parts of the coast. Where such proposals are brought forward consent should only be granted where the IPC is satisfied that the benefits (including need) of the development outweigh the adverse impacts.'</i></p>	<p>Section 7.5.8 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes summarises the shoreline transport pathways and coastal erosion at the proposed East Anglia TWO onshore landfall site. This is further supported by ES Appendix 4.6 Coastal Processes and Landfall Site Selection. The coast is known to be relatively stable between Dunwich and Thorpeness, with rates of cliff erosion less than 0.1m/year. Projections have been made of future coastal erosion in different zones along the coast and these have been used to inform engineering decisions about the location of onshore infrastructure.</p> <p>The ES has considered the impacts on sediment flow and coastal processes. Overall the impacts of the proposed project are predicted</p>

Policy	Summary	Compliance
		to be small scale, localised and temporary, and therefore categorised as low, negligible or no impact (section 7.11).
Section 5.5.12	<i>'The IPC should ensure that applicants have restoration plans for areas of foreshore disturbed by direct works and will undertake pre- and postconstruction coastal monitoring arrangements with defined triggers for intervention and restoration.'</i>	A commitment has also been made to install the export cable at the landfall using HDD techniques, thus avoiding disturbance on the foreshore and in the intertidal zones.
Section 5.5.13	<i>'The IPC should examine the broader context of coastal protection around the proposed site, and the influence in both directions, i.e. coast on site, and site on coast.'</i>	The project will not affect the Shoreline Management Plan and allowance has been made for predicated erosion rates during the project design (section 4.8.1 of ES Chapter 4 Site Selection and Assessment of Alternatives).
Section 5.5.14	<i>'The IPC should consult the MMO on projects which could impact on coastal change, since the MMO may also be involved in considering other projects which may have related coastal impacts.'</i>	The Applicant has consulted MMO at various phases of the project leading up to DCO submission. Consultation responses are in ES Appendix 7.1 Consultation Responses .
Section 5.5.15	<i>'In addition to this NPS the IPC must have regard to the appropriate marine policy documents, as provided for in the Marine and Coastal Access Act 2009. The IPC may also have regard to any relevant SMPs.'</i>	The Marine Policy Statement (MPS) has been considered in these compliance tables for each chapter. The East Inshore and the East Offshore Marine Plans are directly relevant to this project and have been considered in the compliance assessment section of the Planning Statement.
Section 5.5.16	<i>'Substantial weight should be attached to the risks of flooding and coastal erosion. The applicant must demonstrate that full account has been taken of the policy on assessment and mitigation...taking account of the potential effects of climate change on these risks as discussed above.'</i>	Potential impacts from climate change have been taken into account during the assessment, and the proposed East Anglia TWO project has been designed so that it is not vulnerable to coastal change or climate change. No implications on SMPs, and any relevant Marine Plans and capital programmes for maintaining flood and coastal defences have been identified in the ES.

Policy	Summary	Compliance
		<p>The proposed landfall location is within 'Flood Zone 1' as described in ES Chapter 20 Appendix 20.1 Flood Risk Assessment. 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.</p>
EN-3		
<p>Section 2.6.195</p>	<p><i>'The direct effects on the physical environment can have indirect effects on a number of other receptors. Where indirect effects are predicted, the IPC should refer to relevant sections of this NPS and EN-1.'</i></p>	<p>The ES assessment (Chapter 7 Marine Geology, Oceanography and Physical Processes) considered the impacts on waves, currents and movement of sediment, both in the water column and along the sea bed. Overall, the effects of the proposed East Anglia TWO project on these processes were predicted to be small scale, localised and temporary. As a result, they were categorised as low, negligible or no impact (section 7.6 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes). No indirect effects are predicted.</p>
<p>Section 2.6.196</p>	<p><i>'The IPC should be satisfied that the methods of construction, including use of materials, are such as to reasonably minimise the potential for impact on the physical environment. This could involve, for instance, the exclusion of certain foundations on the basis of their impacts, or minimising quantities of rock that are used to protect cables whilst taking into account other relevant considerations such as safety.'</i></p>	<p>As far as practically possible, works will be undertaken in such a way as to reduce the volume of suspended sediment released and minimise the use of cable or scour protection (section 7.6 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes). Cables will be buried wherever possible and it is not anticipated that scour protection would be required for cable laid in soft sediment areas.</p> <p>The extent to which scour management will be required will be determined post consent following the detailed technical design. A Scour Protection Management and Cable Protection Statement will be provided as part of the Construction Method Statement</p>

Policy	Summary	Compliance
		<p>(CMS) and implemented as agreed with the regulator under the requirements of the draft DCO.</p> <p>For the foundation types that would experience the potential for greatest scour, protection material is likely to be installed during the construction process to mitigate the effects of scour, increased suspended sediment concentrations, and bed level changes in the vicinity of each wind turbine. For other foundation types, where the scour potential involves smaller volumes of sediment release due to scour processes, the design would, where feasible to do so, allow for local scour around the piles to minimise the scour protection footprint that is introduced on the sea bed (section 7.3.3).</p>
Marine Policy Statement		
Section 2.6.8.6	<p><i>“Marine plan authorities should not consider development which may affect areas at high risk and probability of coastal change unless the impacts upon it can be managed. Marine plan authorities should seek to minimise and mitigate any geomorphological changes that an activity or development will have on coastal processes, including sediment movement.”</i></p>	<p>The coastline at the landfall is not at high risk and probability of coastal changes, due the coast being relatively stable with rates of cliff recession generally being less than 0.1m/year as described in section 7.5.8 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes.</p> <p>Embedded mitigation measures to minimise any potential geomorphological changes, including sediment movement, are described in section 7.3.3 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes. This includes the refinement of the landfall location and use of HDD techniques to install the export cable.</p> <p>Additional mitigation measures were not deemed necessary as all impacts are negligible for morphological effects and coastal processes as shown in section 7.6 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes.</p>

Policy	Summary	Compliance
East Inshore and the East Offshore Marine Plans		
Objective 6	<p><i>“To have a healthy, resilient and adaptable marine ecosystem in the East Marine Plan area”</i></p> <p><i>Objective 6 reflects policies and commitments on the wider ecosystem set out in the Marine Policy Statement including those to do with the Marine Strategy Framework Directive and the Water Framework Directive as well as other environmental social and economic considerations.</i></p> <p><i>Elements of the ecosystem beyond specific biodiversity interests might include:</i></p> <p>...</p> <p><i>“Coastal processes and the hydrological and geomorphological processes in water bodies and how these support ecological features”.</i></p>	<p>The existing hydrological and geomorphological environment is described in ES section 7.5 of ES Chapter 7 Marine Geology, Oceanography and Coastal Processes.</p> <p>Current ecosystem health is covered in the baseline of sections 10.5.2 Fish, 10.5.3 Shellfish and 10.5.4 Designated Sites and Protected Species of ES Chapter 10 Fish and Shellfish Ecology.</p> <p>Ecosystem resilience to anticipated changes in the baseline conditions is addressed in section 10.5.7 of ES Chapter 10 Fish and Shellfish Ecology</p> <p>ES Chapter 7 Marine Geology, Oceanography and Coastal Processes considers the impacts on waves, currents and movement of sediment, both in the water column and along the sea bed. Overall, the effects of the proposed East Anglia TWO project on these processes were predicted to be small scale, localised and temporary. As a result, they were categorised as low, negligible or no impact.</p>

6.3 Marine Water and Sediment Quality

283. Compliance with policies relating to Marine Water and Sediment Quality are presented in **Table 6.3**. Full details of the assessment and potential impacts on the marine physical environment that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 8 Marine Water and Sediment Quality** and **Chapter 20 Water Resources and Flood Risk**. Where other chapters are relevant these have also been signposted.
284. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.3** below in relation to marine water and sediment quality.

Table 6.3 Marine Water and Sediment Quality Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.15.1	<i>“Infrastructure development can have adverse effects on the water environment, including groundwater, inland surface waters, transitional waters and coastal waters. During the construction, operation and decommissioning phases, it can lead to increased demand for water involving discharges to water and cause adverse ecological effects resulting from physical modifications to the water environment. There may also be an increased risk of spills and leaks of pollutants to the water environment. These effects could lead to adverse impacts on health or on protected species and habitats and could, in particular, result in surface waters, ground waters of protected areas failing to meet environmental objectives established under the Water Framework Directive”.</i>	<p>Embedded mitigation measures to prevent pollution and reduce any associated risks to the water environment have been addressed in ES section 20.3.3 of ES Chapter 20 Water Resources and Flood Risk and section 8.3.3 of ES Chapter 8 Marine Water and Sediment Quality.</p> <p>Table A20.16 of Appendix 20.4 Water Framework Directive Compliance Assessment of the ES details the results of the WFD compliance assessment, and demonstrates that there will be no non-temporary impacts on the status of any river or transitional water bodies that are sufficient to result in deterioration in status of these water bodies, all of which are currently of moderate status.</p>
Section 5.15.4	<i>‘Activities that discharge to the water environment are subject to pollution control. The considerations set out in Section 4.10 on the interface between planning and pollution control therefore apply. These considerations will also apply in an analogous way to the abstraction licensing regime regulating activities that take water from the water environment, and to the control regimes relating to works to, and structures in, on, or under a controlled water.’</i>	<p>Throughout the proposed East Anglia TWO project, best practice techniques and due diligence regarding the potential for pollution throughout all construction, operation and maintenance, and decommissioning activities will be followed. As a result, a Project Environmental Management Plan (PEMP) will be produced and implemented as agreed with the regulator under the requirements of the draft DCO. This will include the following mitigation measures:</p> <ul style="list-style-type: none"> • Oils and lubricants used in the wind turbines would be biodegradable where possible and all chemicals would be certified to the relevant standard. • As far as possible, offshore platforms would be transported to site having been pre-assembled or manufactured on land.

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • Where grout is required, careful use to avoid excess being discharged to the environment would be ensured at all times. • All wind turbines would incorporate appropriate provisions to retain spilled fluids within the nacelle and tower. In addition, converter and collector stations would be designed with a self-contained bund to contain any spills and prevent discharges to the environment. • Best practice procedures would be put in place when transferring oil or fuel between converter or collector stations and service vessels. • Appropriate spill plan procedures would also be implemented in order to appropriately manage any unexpected discharge into the marine environment. These will be included in a Marine Pollution Contingency Plan (MPCP) as secured under the requirements of the draft DCO to be implemented as agreed post-consent. To avoid discharge or spillage of oils it is anticipated that the transformers would be filled for their operational life and would not need interim oil changes. • Inclusion of control measures such as the requirement to carry spill kits and the requirement for vessel personnel to undergo training to ensure requirements of the PEMP and MPCP are understood and communicated; and • All work practices and vessels would adhere to the requirements of the International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78; specifically Annex 1 Regulations for the prevention of pollution by oil concerning machine waters, bilge waters and deck drainage and Annex IV Regulations for the prevention of pollution by sewage from ships concerning black and grey waters.

Policy	Summary	Compliance
Section 5.15.5	<i>'The IPC will generally need to give impacts on the water environment more weight where a project would have an adverse effect on the achievement of the environmental objectives established under the Water Framework Directive.'</i>	<p>A WFD compliance assessment was completed and can be found in ES Appendix 20.4 WFD Compliance Assessment.</p> <p>The results of the WFD compliance assessment process are provided in Table A20.16 Summary of WFD Compliance Assessment. The project is assessed as not having an adverse impact on and remaining compliant with the objectives established under the WFD for all relevant water bodies considered. This will be ensured by implementation of the control measures set out in section 20.6.2 of ES Appendix 20.4.</p>
Section 5.15.6	<i>'The IPC should satisfy itself that a proposal has regard to the River Basin Management Plans and meets the requirements of the Water Framework Directive (including Article 4.7) and its daughter directives, including those on priority substances and groundwater. The specific objectives for particular river basins are set out in River Basin Management Plans. The IPC should also consider the interactions of the proposed project with other plans such as Water Resources Management Plans and Shoreline/Estuary Management Plans.'</i>	<p>An assessment of how the project meets the environmental objectives of the Anglian River Basin District: River Basin Management Plan is provided in Compliance Table 6.15 of this document.</p> <p>The project is in keeping with the Essex and Suffolk Water Resources Management Plan as there will be no water abstraction associated with the proposed East Anglia TWO project. The project also aims to mitigate impacts of climate change which may affect water supply.</p> <p>An assessment of how the project meets the environmental objectives of the shoreline management plan (Lowestoft Ness to Felixstowe Landguard Point) is provided in Compliance Table 6.1.</p>
Section 5.15.7	<i>'The IPC should consider whether appropriate requirements should be attached to any development consent and/or planning obligations entered into to mitigate adverse effects on the water environment.'</i>	<p>Regulators have been consulted at the pre-application stage on the assessment methodology for impacts on the physical environment. Table 8.1 of ES Chapter 8 Marine Water and Sediment Quality details the engagement and consultation between the Environment Agency (EA), MMO, Cefas and the Applicant. Regulator comments</p>

Policy	Summary	Compliance
		<p>have driven the sampling regime and scope of contaminant analyses as described in Table 8.1.</p> <p>The applicant considers, that with the agreement and implementation of the PEMP (as secured under the requirements of the draft DCO'), the project would successfully mitigate against potential adverse effects on the water environment.</p>
EN-3		
Section 2.6.195	<i>'As set out above, the direct effects on the physical environment can have indirect effects on a number of other receptors. Where indirect effects are predicted, the IPC should refer to relevant sections of this NPS and EN-1.'</i>	<p>The EIA considered the indirect (as well as the direct) impacts of the development, including the release of sediment, as well as the potential for the release of pollutants which may already be present within sediment, that could potentially be disturbed when constructing the proposed East Anglia TWO project. Overall, no significant impacts on marine water and sediment quality were identified in the assessment, and through the implementation of the PEMP, all potential impacts to water and sediment quality are considered to be small scale, localised and temporary. Decommissioning impacts are expected to be no greater than those construction impacts identified.</p> <p>No cumulative impacts with adjacent projects, including several OWFs (including East Anglia ONE North) and aggregate extraction activities were identified. This was, again, due to the small scale of the effects and their temporary nature.</p>
Section 2.6.196	<i>'The IPC should be satisfied that the methods of construction, including use of materials, are such as to reasonably minimise the potential for impact on the physical environment.'</i>	<p>Minimising the construction of offshore platforms at sea and using appropriate quantities of grout are construction considerations which will be adopted to minimise impacts on the physical environment. Potential impacts caused by the disturbance of sea bed sediment are</p>

Policy	Summary	Compliance
		<p>mitigated against in ES section 7.3.3 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes.</p> <p>Potential adverse impacts caused by the release of contaminants during construction, operation and decommissioning are addressed in section 8.6 of ES Chapter 8 Marine Water and Sediment Quality.</p> <p>The impacts of construction, operation and decommissioning on marine water quality and sediment range from negligible to minor adverse as detailed in ES Table 8.18 in ES Chapter 8 Marine Water and Sediment Quality.</p> <p>As secured under the requirements of the draft DCO, a PEMP will be produced and implemented as agreed with the regulator to mitigate potential adverse effects on the water environment.</p>
Marine Policy Statement		
Section 2.6.4	<p><i>“Developments and other activities at the coast and at sea can have adverse effects on transitional waters, coastal waters and marine waters. During the construction, operation and decommissioning phases of developments, there can be increased demand for water, discharges to water and adverse ecological effects resulting from physical modifications to the water environment. There may also be an increased risk of spills and leaks of pollutants into the water environment and the likelihood of transmission of invasive non-native species, for example through construction equipment, and their impacts on ecological water quality need to be considered.”</i></p>	<p>Potential adverse impacts caused by the release of contaminants are addressed in ES section 8.6 of Chapter 8 Marine Water and Sediment Quality.</p> <p>Consideration of risk of transmission of invasive non-native species within the offshore development area resulted in mitigation to minimise the risk, as detailed in ES section 9.3.3.4 of Chapter 9 Benthic Ecology</p> <p>Mitigation measures to prevent discharge and adverse ecological effects to the offshore water environment have been addressed in ES section 8.3.3 of Chapter 8 Marine Water and Sediment Quality. These measures will be described in further detail in the PEMP as secured under the requirements of the draft DCO.</p>

Policy	Summary	Compliance
		<p>The majority of pollutants enter the southern North Sea through the direct discharges of effluents or terrestrial run-off. Mitigation measures to prevent pollution to the onshore water environment have been addressed in ES section 20.3.3 of ES Chapter 20 Water Resources and Flood Risk. A Pollution Prevention and Response Plan (PPRP) will be developed pre-construction and will adhere to industry best practice guidance as detailed in the Environment Agency's Pollution Prevention Guidance (PPG's). The PPG's are revoked as regulatory guidance in England but still provide a useful guide for best practice measures. Works will also adhere to Construction Industry Research and Information Associations (CIRIA)'s 'Control of water pollution from construction sites: Guidance for consultants and contractors (C532)' (2001).</p>
East Inshore and the East Offshore Marine Plans		
<p>Objective 6</p>	<p><i>To have a healthy, resilient and adaptable marine ecosystem in the East Marine Plan area.</i></p> <p><i>Objective 6 reflects policies and commitments on the wider ecosystem set out in the Marine Policy Statement including those to do with the Marine Strategy Framework Directive and the Water Framework Directive as well as other environmental social and economic considerations.</i></p> <p><i>Elements of the ecosystem beyond specific biodiversity interests might include:</i></p> <p>...</p>	<p>Baseline water quality is detailed in ES section 8.5.1 of ES Chapter 8 Marine Water and Sediment Quality.</p> <p>ES Chapter 8 Marine Water and Sediment Quality considered the impacts of the release of sediment, as well as the potential for the release of pollutants which may already be present within sediment, that could potentially be disturbed when constructing the proposed East Anglia TWO project. Overall, no significant impacts on marine water and sediment quality were identified in the assessment, and through the implementation of standard measures such as developing an appropriate pollution prevention procedure, all potential impacts to water and sediment quality are considered to be small scale, localised and temporary. Decommissioning impacts are expected to be no greater than those construction impacts identified.</p>

Policy	Summary	Compliance
	<p><i>“water quality characteristics critical to supporting a healthy ecosystem and pollutants that may affect these (from marine as well as riverine and terrestrial sources”.</i></p>	<p>This assessment is carried across into ecosystem health and resilience in ES Chapter 9 Benthic Ecology, ES Chapter 10 Fish and Shellfish ecology and ES Chapter 11 Marine Mammals.</p>
ECO2	<p><i>The risk of release of hazardous substances as a secondary effect due to any increased collision risk should be taken account of in proposals that require an authorisation.</i></p>	<p>As described in response to EN-1 sections 2.6.96 in this compliance table, collision risk with vessels is assessed as being of minor adverse significance for harbour porpoise and grey seal and negligible for harbour seal.</p> <p>Areas of shipping and navigation activity have been avoided as far as possible during the site selection process for the Windfarm site boundary (section 2.6.161 of ES Chapter 4 Site Selection and Assessment of Alternatives). As discussed in response to EN-3 Section 2.6.161 in Table 6.9 Shipping and Navigation Policy Compliance, 16 main routes were identified in ES Appendix 14.2 East Anglia TWO Offshore Windfarm Navigational Risk Assessment, of which four will require deviation during the construction, operation and maintenance and decommissioning phases of the East Anglia TWO windfarm site to reduce collision risks. These are:</p> <ul style="list-style-type: none"> • Route 2: consists of commercial ferries (passenger and Ro Ro) and used by approximately seven vessels per day, between Harwich/Felixstowe and the Hook of Holland; • Route 3: consists of cargo vessels and commercial ferries and used by approximately two vessels per day, between Zeebrugge and ports within the Humber; • Route 12: consists of cargo vessels, commercial ferries and tankers and used by approximately one vessel per day, between Newcastle upon Tyne (UK) and the Dover Strait; and

Policy	Summary	Compliance
		<ul style="list-style-type: none"> Route 15: consists of cargo vessels and tankers and used by approximately one vessel per day, between ports within the Thames Estuary and Norway/Sweden. <p>The release of hazardous substances would be mitigated by the measures outlined in section 8.3.3 of ES Chapter 8 Marine Water and Sediment Quality. Appropriate spill plan procedures would be implemented in order to appropriately manage any unexpected discharge into the marine environment, these will be included in the MPCP to be agreed post-consent as secured under the conditions of the draft DML. Reporting of any spills to MMOs Marine Pollution Response Team is also required under the conditions of the draft DML.</p>

6.4 Benthic Ecology

285. Compliance with policies relating to Benthic Ecology are presented below in **Table 6.4**. Full details of the assessment and potential impacts on marine ecology that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 9 Benthic Ecology** and **Chapter 4 Site Selection and Assessment of Alternatives**. Where other chapters are relevant these have also been signposted.
286. The EIA has recorded that the principal impacts will derive from the construction of the offshore project components. Considerable effort has been directed into minimising potential impacts on ecological resources and receptors through embedded mitigation, including careful design and avoidance of designated sites where possible through site selection. Full details of the EIA and potential impacts (including potential impacts of EMFs) on benthic and intertidal ecology can be found in Chapter 9 Benthic and Chapter 10 Fish and Shellfish Ecology.
287. East Anglia TWO Limited considers that the proposed East Anglia TWO project avoids causing ‘significant harm’ to benthic and intertidal ecology and therefore accords with relevant policies set out in **Table 6.4**.

Table 6.4 Benthic Ecology Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.3.12 Marine Conservation Zones	<i>Marine Conservation Zones (MCZs) (Marine Protected Areas in Scotland), introduced under the Marine and Coastal Access Act 2009, are areas that have been designated for the purpose of conserving marine flora or fauna, marine habitats or types of marine habitat or features of geological or geomorphological interest. The protected feature or features and the conservation objectives for the MCZ are stated in the designation order for the MCZ, which provides statutory protection for these areas implemented by the MMO (see paragraph 1.2.2). As a public authority, the IPC is bound by the duties in relation to MCZs imposed by sections 125 and 126 of the Marine and Coastal Access Act 2009.</i>	Potential for impacts on MCZs was reviewed as part of sites selection and the only site of relevance is the Orford Inshore MCZ. This is 2.1km from the offshore cable corridor. Impacts were considered, but no pathways were identified for impacts to occur (section 7.5.9 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes). Therefore, it is not considered that the development is capable of affecting the protected features of an MCZ nor any ecological or geomorphological process on which the conservation of any protected feature of an MCZ is (wholly or in part) dependent, as set out in the MCAA 2009.
Section 5.3.15 Biodiversity within Developments	<i>Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design. When considering proposals, the IPC should maximise such opportunities in and around developments, using requirements or planning obligations where appropriate.</i>	Please refer to compliance demonstrated for EN-3 Section 2.6.116 below regarding good project design and how this is beneficial for biodiversity.
Section 5.3.16 and 5.3.17 Protection of Habitats and Other Species	<i>Many individual wildlife species receive statutory protection under a range of legislative provisions. Other species and habitats have been identified as being of principal importance for the conservation of biodiversity in England and Wales and thereby requiring conservation action. The IPC should ensure that these species and habitats are protected from the adverse effects of development by using requirements or planning obligations. The IPC should refuse consent where harm to the habitats or species and their habitats would result, unless the benefits (including need) of the</i>	Two potential annex I habitats, <i>Sabellaria spinulosa</i> reef and vegetated shingle, were identified within the proposed East Anglia TWO offshore development area. Results from the side scan sonar survey show that there is no evidence of <i>Sabellaria</i> reef in the offshore cable corridor (section 9.5.5.1.1 of ES Chapter 9 Benthic Ecology). Minor or relict patches of <i>Sabellaria</i> were found at a number of sample locations (10) (see ES Appendix 9.3 Benthic Factual Data

Policy	Summary	Compliance
	<p><i>development outweigh that harm. In this context the IPC should give substantial weight to any such harm to the detriment of biodiversity features of national or regional importance which it considers may result from a proposed development</i></p>	<p>Report) however nothing which constitutes a reef was identified.</p> <p>Vegetated shingle is a feature of the Leiston-Aldeburgh SSSI at the landfall. However, landfall will be made using HDD and therefore there will be no direct or indirect impacts on the intertidal zone (section 9.5.5.1.2).</p> <p>Other protected species such as amphipod <i>Apherusa ovalipes</i>, northern horse mussel <i>Modiolus modiolus</i> and blue mussel <i>Mytilus edulis</i> were identified as potential species of concern in the former East Anglia Zone, however none were found in site specific surveys (section 9.5.5.3).</p> <p>Although not a protected species, brown shrimp <i>Crangon crangon</i> were also considered as they are an important commercial species and play an important role in ecosystem function (section 9.5.5.3). This species was considered among shellfish landings and potential changes to fishing activity, impacts were assessed as minor adverse (section 10.6.1.7 of ES Chapter 10 Fish and Shellfish Ecology).</p>
EN-3		
<p>Section 2.6.115 Subtidal</p>	<p><i>'The conservation status of subtidal habitat is of relevance to the IPC.'</i></p>	<p>In section 7.4.3 of ES Chapter Marine Geology, Oceanography and Physical Processes, Table 7.10 lists potential receptors and their features. Two of these receptor groups are Norfolk Natura 2000 Sites and Suffolk Natura 2000 Sites with sites and interest features which are of importance for benthic ecology.</p> <p>Norfolk Natura sites include:</p>

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • Haisborough, Hammond and Winterton SAC; • North Norfolk Sand banks and Saturn Reef SA; and • Great Yarmouth and North Denes SPA. • Suffolk Natura sites include: • Outer Thames Estuary SPA; • Minsmere to Walberswick Heaths and Marshes SAC and SPA; • Alde, Ore and Butley Estuaries SAC; • Alde-Ore Estuary SPA; • Orfordness – Shingle Street SAC/ GCR; and • Benacre to Easton Bavents SPA. <p>Section 9.5.5.2 of ES Chapter 9 Benthic Ecology describes Marine Protected Areas. There are areas of sandbank habitat inshore of the offshore cable corridor which are supporting features of the Outer Thames Estuary SPA (see ES Figure 9.13).</p> <p>It is concluded in the EIA that impacts on subtidal habitats would be of minor adverse or negligible significance (section 7.6 of ES Chapter Marine Geology, Oceanography and Physical Processes).</p>
Section 2.6.116 Subtidal	<i>'The IPC should be satisfied that activities have been designed taking into account sensitive subtidal environmental aspects.'</i>	As described in section 9.3.3 of ES Chapter 9 Benthic Ecology , the offshore development area avoids, as far as possible, designated sites, including the Alde, Ore and Butley Estuaries SAC (3.6km south east and Orfordness – Shingle

Policy	Summary	Compliance
		<p>Street SAC (5.09km south east), both of which have benthic features as part of their designations.</p> <p>The offshore cable corridor has been designed to avoid cable crossings where possible. Where there are cable crossings these have, as far as possible, been aligned at a 90° angle. This is primarily for technical reasons but also serves to minimise the requirement for cable protection.</p> <p>Should seabed obstacles (e.g. <i>Sabellaria</i> reef outside of a SAC) be identified in the proposed wind turbine locations and/or cable routes during the pre-construction surveys, micro-siting would be undertaken where possible, to minimise potential impacts. Areas of Coralline Crag in the nearshore area will also be avoided by routeing of the export cable to the south of the formation.</p> <p>Sediment would not be disposed of within 50m of known <i>Sabellaria</i> reef identified during pre-construction surveys. Therefore, construction related activities have been designed, taking into account sensitive subtidal environmental aspects.</p>
<p>Section 2.6.117 Subtidal</p>	<p><i>'Where adverse effects are predicted, in coming to a judgement, the IPC should consider the extent to which the effects are temporary or reversible.'</i></p>	<p>Sea bed surveys found a community typical of the southern North Sea and characterised by marine worms and crustaceans. Owing to the relatively high tolerance to disturbance this community shows and small sea bed footprint of the proposed East Anglia TWO project, potential operational phase impacts of the proposed project alone or cumulatively were judged to be negligible or minor adverse. The magnitude ratings associated with these impacts translate to effects being</p>

Policy	Summary	Compliance
Section 2.6.118 Subtidal	<p><i>'Where it is proposed that the offshore export cables are armoured and buried at a sufficient depth (1.5m) to minimise heat effects (as described in paragraph 2.6.76 above) the effects of heat on sensitive species from cable infrastructure during operation are unlikely to be a reason for the IPC to refuse to grant consent for a development.'</i></p>	<p>temporary and reversible (section 9.4.3.3 of ES Chapter 9 Benthic Ecology).</p> <p>Heat effects were not assessed as these were not requested to be included at scoping. Heat effects were scoped out from the assessment because burial of the cable will act to minimise emission of EMF. Heat loss per metre for a typical 1,000mm² offshore High Voltage Alternative Current (HVAC) 132kV 3-core cable is 30W/m (section 6.5.11.6 of ES Chapter 6 Project Description).</p> <p>During consultation, Natural England advised that a minimum offshore cable burial depth of 1m be achieved (Table 6.1 Consultation Responses of ES Chapter 6 Project Description). The preferred construction technique and depth of burial for the offshore electrical infrastructure would be decided after the preconstruction geotechnical ground investigation is undertaken and a risk assessment and a lifetime maintenance assessment is completed. See section 6.5.11 of ES Chapter 6 Project Description. Cable burial depths will be detailed in the Cable Laying Plan which will be produced post-consent under the requirements of the draft DCO.</p>
Marine Policy Statement		
Living within environmental limits	<ul style="list-style-type: none"> <i>Biodiversity is protected, conserved and where appropriate recovered and loss has been halted;</i> <i>Healthy marine and coastal habitats occur across their natural range and are able to support strong, biodiverse biological communities and the functioning of healthy, resilient and adaptable marine ecosystems; and</i> 	<p>Section 9.5.5 of ES Chapter 9 Benthic Ecology and section 10.6 of ES Chapter 10 Fish and Shellfish Ecology detail the impacts on biodiversity as a result of the construction, operation and decommissioning of the East Anglia TWO project. It is not anticipated that the development will have any significant effect</p>

Policy	Summary	Compliance
	<ul style="list-style-type: none"> Our oceans support viable populations of representative, rare, vulnerable, and valued species. 	<p>on biodiversity, healthy marine and coastal habitats and will therefore not conflict with the MPS.</p>
The East Inshore and The East Offshore Marine Plans		
Objective 6	<p>To have a healthy, resilient and adaptable marine ecosystem in the East Marine Plan areas.</p>	<p>Current ecosystem health is covered in the baseline of sections 10.5.2 Fish, 10.5.3 Shellfish and 10.5.4 Designated sites and Protected Species of ES Chapter 10 Fish and Shellfish ecology. Section 9.5 describes the existing benthic environment for in ES Chapter 9 Benthic Ecology.</p> <p>Ecosystem resilience and adaptiveness to anticipated changes in the baseline conditions is addressed in section 10.5.7 of ES Chapter 10 Fish and Shellfish ecology.</p> <p>Available literature was used to inform the sensitivity of benthic habitat types, based on the abundance of the habitat and its resilience to impacts (section 9.4.2.1 of ES Chapter 9 Benthic Ecology).</p> <p>It is not anticipated that the development will have any significant effects on benthic and fish ecology, and will therefore not conflict with Objective 6.</p> <p>This is the high-level objective, reflective of the Marine Policy Statement and is underpinned by the specific policy ECO1 in the row below.</p>

Policy	Summary	Compliance
ECO1	<i>Cumulative impacts affecting the ecosystem of the East marine plans and adjacent areas (marine, terrestrial) should be addressed in decision-making and plan implementation.</i>	Cumulative impacts are assessed in section 9.7 which considers impacts in combination with East Anglia ONE and East Anglia ONE North. Impacts range from negligible to minor adverse during construction, operation and decommissioning (section 9.11 of ES Chapter 9 Benthic Ecology).
Objective 7	<i>To protect, conserve and, where appropriate, recover biodiversity that is in or dependent upon the East marine plan areas</i>	Section 9.5.5 of ES Chapter 9 Benthic Ecology and sections 10.5 and 10.6 of ES Chapter 10 Fish and Shellfish Ecology detail the impacts on biodiversity as a result of the construction, operation and decommissioning of the East Anglia TWO project. It is not anticipated that the development will have any significant effect on biodiversity, healthy marine and coastal habitats and viable populations of representative, rare, vulnerable, and valued species within our oceans. This is the high-level objective, reflective of the Marine Policy Statement and it is underpinned by the specific policies BIO1 and BIO 2 in the rows below.
BIO1	<i>Appropriate weight should be attached to biodiversity, reflecting the need to protect biodiversity as a whole, taking account of the best available evidence including on habitats and species that are protected or of conservation concern in the East marine plans and adjacent areas (marine, terrestrial).</i>	The siting, design and refinement of the proposed East Anglia TWO project has followed an iterative site selection process. This has taken account of environmental, physical, technical, commercial and social considerations and opportunities as well as engineering requirements. Strategic level project design alternatives are presented in section 4.4.2 of ES Chapter 4 Site Selection and Assessment of Alternatives . Key relevant design decisions include the use of HDD at the landfall and avoidance of known sandbanks. The embedded mitigation outlined in section 9.3.3 of ES Chapter 9 Benthic Ecology highlights these measures and construction phase

Policy	Summary	Compliance
		considerations to avoid or minimise impacts upon benthic biodiversity.
BIO2	<i>Where appropriate, proposals for development should incorporate features that enhance biodiversity and geological interests.</i>	There are no specific measures to enhance biodiversity in the benthic environment however the embedded mitigation measures in section 9.3.3 of ES Chapter 9 Benthic Ecology will ensure that any impacts on benthic ecology will not be significant and biodiversity will remain protected.

6.5 Fish and Shellfish Ecology

288. Compliance with policies relating to Fish and Shellfish Ecology are presented in **Table 6.5**. Full details of the assessment and potential impacts on marine ecology that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 10 Fish and Shellfish Ecology**. Where other chapters are relevant these have also been signposted.
289. The national policy position acknowledges the wide range of legislative provisions that exist at the national and international level which seek to protect and conserve marine based species and habitats. EN-1 sets out the national position with regard to EMFs associated with energy NSIPs. EN-5 explains how EMFs arise from generation, transmission, distribution and use of electricity.
290. The EIA has recorded that the principal impacts will derive from the construction of the offshore project components. Considerable effort has been directed into minimising potential impacts on ecological resources and receptors through careful design and micro-siting. Full details of the EIA and potential impacts (including potential impacts of EMFs) on fish and shellfish can be found in **Chapter 10 Fish and Shellfish Ecology**.

Table 6.5 Fish and Shellfish Ecology Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.3.12 Marine Conservation Zones	<i>Marine Conservation Zones (MCZs) (Marine Protected Areas in Scotland), introduced under the Marine and Coastal Access Act 2009, are areas that have been designated for the purpose of conserving marine flora or fauna, marine habitats or types of marine habitat or features of geological or geomorphological interest. The protected feature or features and the conservation objectives for the MCZ are stated in the designation order for the MCZ, which provides statutory protection for these areas implemented by the MMO (see paragraph 1.2.2). As a public authority, the IPC is bound by the duties in relation to MCZs imposed by sections 125 and 126 of the Marine and Coastal Access Act 2009.</i>	The Orford Inshore MCZ is designated for its interest feature 'subtidal mixed sediment'. Its nearest point to the proposed East Anglia TWO project is 2.1km from the offshore cable corridor. No pathways for impacts to occur were identified and an assessment has not been conducted (section 10.5.4 of ES Chapter 10 Fish and Shellfish Ecology). East Anglia THREE is adjacent to this site. An assessment for that project (EATL 2016) concluded no adverse impact on the site.
Section 5.3.16 and 5.3.17 Protection of Habitats and Other Species	<i>Many individual wildlife species receive statutory protection under a range of legislative provisions. Other species and habitats have been identified as being of principal importance for the conservation of biodiversity in England and Wales and thereby requiring conservation action. The IPC should ensure that these species and habitats are protected from the adverse effects of development by using requirements or planning obligations. The IPC should refuse consent where harm to the habitats or species and their habitats would result, unless the benefits (including need) of the development outweigh that harm. In this context the IPC should give substantial weight to any such harm to the detriment of biodiversity features of national or regional importance which it considers may result from a proposed development</i>	Diadromous migratory species, elasmobranchs and other species with designated conservation status are described in sections 10.5.4.1, 10.5.4.2 and 10.5.4.3 respectively of ES Chapter 10 Fish and Shellfish Ecology . As summarised in section 10.11 , residual impacts range from negligible to minor adverse, therefore it is not considered that significant harm to other species and habitats will occur from the proposed East Anglia TWO project.

Policy	Summary	Compliance
EN-3		
Section 2.6.75 Fish	<p><i>Where it is proposed that mitigation measures of the type set out in paragraph 2.6.76 (cable burial depth of at least 1.5) are applied to offshore export cables to reduce electromagnetic fields (EMF) the residual effects of EMF on sensitive species from cable infrastructure during operation are not likely to be significant. Once installed, operational EMF impacts are unlikely to be of sufficient range or strength to create a barrier to fish movement.</i></p>	<p>A described in section 10.6.2.6 of ES Chapter 10 Fish and Shellfish Ecology, the worst case scenario assessed with regard to EMF impacts is a minimum cable burial depth of 0.5m. This is because the greatest impact from EMF would occur if cables are unburied or buried to the shallowest depth of 0.5m. Where substrate conditions prevent burial, and at cable crossings, additional cable protection will be deployed. Potential impacts from EMFs on specific fish species is also detailed. These include:</p> <ul style="list-style-type: none"> • Elasmobranchs • Lamprey • Salmon and Sea Trout • European Eel • Other Fish Species • Shellfish <p>The residual impacts of EMFs on species which are likely receptors (listed above) ranges between minor adverse and negligible as seen in section 10.11 of Chapter 10 Fish and Shellfish Ecology.</p> <p>Cables will be buried where possible, to a minimum burial depth of 1.0m. This, however, may vary between a range of 1.0 to 3.0m. The preferred construction technique and depth of burial for the offshore electrical infrastructure would be decided after the preconstruction geotechnical ground investigation is undertaken and a risk assessment and a lifetime maintenance</p>

Policy	Summary	Compliance
		assessment is completed. See section 6.5.10.3 of ES Chapter 6 Project Description . Cable burial depths will be detailed in the Cable Laying Plan which will be produced post-consent under the requirements of the draft DCO
Section 2.6.68 Biodiversity	<i>The IPC should consider the effects of a proposal on marine ecology and biodiversity taking into account all relevant information made available to it.</i>	Section 10.5 of ES Chapter 10 Fish and Shellfish Ecology describes the baseline environment with regards to fish and shellfish ecology and biodiversity. Assessments of potential impacts have been undertaken for the construction, operation and decommissioning stages of the proposed East Anglia TWO offshore windfarm. These are presented in sections 10.6.1, 10.6.2 and 10.6.3 in accordance with the appropriate policy such as NSPS EN-3 for offshore wind farm EIAs. Impacts range from negligible to minor adverse (section 10.11) during construction, operation and decommissioning (including cumulatively with other developments). No significant adverse impacts are predicted.
Section 2.6.69 Biodiversity	<i>The designation of an area as Natura 2000 site does not necessarily restrict the construction or operation of offshore wind farms in or near that area (see also Section 4.3 of EN-1).</i>	There are no Special Areas of Conservation (SACs) designated for the fish species listed in response to EN-3 Section 2.6.75 (either as a primary or secondary interest feature) within 50km of the East Anglia TWO windfarm site and offshore cable corridor (section 10.5.4 of ES Chapter 10 Fish and Shellfish Ecology).
Marine Policy Statement		
Living within environmental limits	<ul style="list-style-type: none"> <i>Biodiversity is protected, conserved and where appropriate recovered and loss has been halted;</i> <i>Healthy marine and coastal habitats occur across their natural range and are able to support strong, biodiverse biological</i> 	Section 10.6 of Chapter 10 Fish and Shellfish Ecology detail the impacts on biodiversity as a result of the construction, operation and decommissioning of the East Anglia TWO project. It is not anticipated that the development will have any significant

Policy	Summary	Compliance
	<p><i>communities and the functioning of healthy, resilient and adaptable marine ecosystems; and</i></p> <ul style="list-style-type: none"> <i>Our oceans support viable populations of representative, rare, vulnerable, and valued species</i> 	<p>effect on biodiversity, healthy marine and coastal habitats and will therefore not conflict with the MPS.</p>
The East Inshore and The East Offshore Marine Plans		
Objective 6	<p><i>To have a healthy, resilient and adaptable marine ecosystem in the East Marine Plan areas</i></p>	<p>This is the high-level objective, reflective of the Marine Policy Statement and is underpinned by the specific policy ECO1 in the row below.</p>
ECO1	<p><i>Cumulative impacts affecting the ecosystem of the East marine plans and adjacent areas (marine, terrestrial) should be addressed in decision-making and plan implementation.</i></p>	<p>The construction, operation and decommissioning phases of the East Anglia TWO project could cause a range of effects on fish and shellfish ecology. These effects not only have the potential to directly affect the identified fish and shellfish receptors but may also manifest as impacts within the wider ecosystem upon receptors other than those considered within the context of fish and shellfish ecology. This extends to Benthic Ecology (addressed in sections 10.6.1 and 10.6.2), Commercial Fisheries (addressed in section 10.5.2.3), Physical Processes (addressed in sections 10.6.1 and 10.6.2), Marine Mammals (addressed in section 10.5.5) and Offshore Ornithology (addressed in section 10.5.5) (section 10.9 of ES Chapter 10 Fish and Shellfish Ecology).</p> <p>Cumulative impacts and other listed projects are addressed in section 10.7. As agreed with stakeholders, the cumulative assessment considered only cumulative noise impacts, habitat loss and changes to seabed habitat. All other project alone impacts have been excluded in the cumulative assessment due to the negligible project alone impacts on fish and shellfish</p>

Policy	Summary	Compliance
		receptors. Cumulative impacts were assessed as minor adverse for construction, operation and decommissioning (section 10.11).
Objective 7	<i>To protect, conserve and, where appropriate, recover biodiversity that is in or dependent upon the East marine plan areas</i>	This is the high-level objective, reflective of the Marine Policy Statement and it is underpinned by the specific policies BIO1 and BIO 2 in the rows below.
BIO1	<i>Appropriate weight should be attached to biodiversity, reflecting the need to protect biodiversity as a whole, taking account of the best available evidence including on habitats and species that are protected or of conservation concern in the East marine plans and adjacent areas (marine, terrestrial).</i>	<p>The siting, design and refinement of the proposed East Anglia TWO project has followed an iterative site selection process. This has taken account of environmental, physical, technical, commercial and social considerations and opportunities as well as engineering requirements. Strategic level project design alternatives are presented in section 4.4.2 of ES Chapter 4 Site Selection and Assessment of Alternatives.</p> <p>The embedded mitigation outlined in section 10.3.3 of Chapter 10 Fish and Shellfish Ecology highlights the design measures and construction phase considerations to avoid or minimise impacts upon fish and shellfish.</p>
BIO2	<i>Where appropriate, proposals for development should incorporate features that enhance biodiversity and geological interests.</i>	The proposed East Anglia TWO project does not incorporate features which will specifically enhance biodiversity, however the mitigation measures outlined in section 10.3.3 of ES Chapter 10 Fish and Shellfish Ecology will ensure that biodiversity is protected from any significant adverse impacts.

6.6 Marine Mammals

291. Compliance with policies relating to marine mammals are presented in **Table 6.6**. Full details of the assessment and potential impacts on marine ecology that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 11 Marine Mammals**. Where other chapters are relevant these have also been signposted.
292. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.6** below in relation to marine mammals.

Table 6.6 Marine Mammal Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.3.15 Biodiversity within Development	<i>Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design. When considering proposals, the IPC should maximise such opportunities in and around developments, using requirements or planning obligations where appropriate.</i>	No specific beneficial features for marine mammals will be incorporated into the design of the proposed East Anglia TWO project.
Section 5.3.16 and 5.3.17 Protection of Habitats and Other Species	<i>Many individual wildlife species receive statutory protection under a range of legislative provisions. Other species and habitats have been identified as being of principal importance for the conservation of biodiversity in England and Wales and thereby requiring conservation action. The IPC should ensure that these species and habitats are protected from the adverse effects of development by using requirements or planning obligations. The IPC should refuse consent where harm to the habitats or species and their habitats would result, unless the benefits (including need) of the development outweigh that harm. In this context the IPC should give substantial weight to any such harm to the detriment of biodiversity</i>	Harbour porpoise, Grey seal and Harbour seal are considered in section 11.5.4 of ES Chapter 11 Marine Mammals . Harbour porpoise are protected within the Southern North Sea SAC and the Harbour seal is a protected feature of the Wash and North Norfolk SAC. The HRA screening report screened out all sites for the Grey seal with the exception of Humber Estuary SAC. For the Harbour seal, all sites were screened out apart from the Wash and North Norfolk Coast SAC. The information to support HRA concluded no adverse effect on the integrity of both sites as a result of potential impacts.

Policy	Summary	Compliance
	<p><i>features of national or regional importance which it considers may result from a proposed development.</i></p>	<p>Residual impacts on marine mammals in the ES chapter are summarised in section 11.11 and range from negligible to minor adverse and are therefore not significant.</p> <p>An outline Southern North Sea SAC Site integrity Plan (SIP) has been submitted with the DCO application (document reference 8.17). The SIP will allow for management and mitigation of residual cumulative impact upon harbour porpoise.</p>
EN-3		
<p>Section 2.6.94 t</p>	<p><i>The IPC [now the Examining Authority and the Secretary of State (SoS)] should be satisfied that the preferred methods of construction, in particular the construction method needed for the proposed foundations and the preferred foundation type, where known at the time of application, are designed so as to reasonably minimise significant disturbance effects on marine mammals. Unless suitable noise mitigation measures can be imposed by requirements to any development consent the IPC [now the Examining Authority and SoS] may refuse the application.</i></p>	<p>The construction methods for all potential foundations types are described in ES Chapter 6 Project Description. At this stage, the options for piling foundations cannot be scoped out and has therefore been assessed as the worst-case scenario (section 11.3.2 of ES Chapter 11 Marine Mammals), with mitigation measures (section 11.3.3) designed to reasonably minimise significant disturbance effects on marine mammals. Mitigation measures include:</p> <ul style="list-style-type: none"> • Soft-start and ramp up for every piling event; and • Implementation of the Marine Mammal Mitigation Protocol (MMMP) for piling, secured by the draft DML. A draft MMMP has been submitted with this DCO application (document reference 8.14) • Implementation of the MMMP for UXO clearance. This is secured within the draft DML. • An Outline Southern North Sea SAC SIP has been submitted with the DCO application. The SIP will allow for management of residual cumulative impact upon harbour porpoise.

Policy	Summary	Compliance
Section 2.6.95	<i>The conservation status of marine European Protected Species and seals are of relevance to the IPC [now the Examining Authority and SoS]. IPC [now the Examining Authority and SoS] should take into account the views of the relevant statutory advisors.</i>	The views of the relevant statutory advisors such as Natural England, Planning Inspectorate and Whale and Dolphin Conservation UK have been taken on board through the development of the East Anglia TWO project and are presented in section 11.2 of ES Chapter 11 Marine Mammals .
Section 2.6.96	<i>Fixed submerged structures such as foundations are likely to pose little collision risk for marine mammals and the IPC [now the Examining Authority and SoS] is not likely to have to refuse to grant consent for a development on the grounds that offshore windfarm foundations pose a collision risk to marine mammals.</i>	Collision with foundations was scoped out because of the minimal likelihood and negligible impact. Therefore, this was not considered any further. Vessel interaction (collision risk) was considered in section 11.6 of ES Chapter 11 Marine Mammals .
Marine Policy Statement		
Living within environmental limits	<ul style="list-style-type: none"> <i>Biodiversity is protected, conserved and where appropriate recovered and loss has been halted;</i> <i>Healthy marine and coastal habitats occur across their natural range and are able to support strong, biodiverse biological communities and the functioning of healthy, resilient and adaptable marine ecosystems; and</i> <i>Our oceans support viable populations of representative, rare, vulnerable, and valued species</i> 	Section 11.6 of ES Chapter 11 Marine Mammals details the impacts on marine mammal species (Harbour porpoise and Harbour seal qualifying features of sites designated for their biodiversity) as a result of the construction, operation and decommissioning of the East Anglia TWO project. It is not anticipated that the development will have any significant effect on biodiversity, healthy marine and coastal habitats and will therefore not conflict with the MPS
The East Inshore and The East Offshore Marine Plans		
Objective 6	<i>To have a healthy, resilient and adaptable marine ecosystem in the East Marine Plan areas</i>	This is the high-level objective, reflective of the Marine Policy Statement and is underpinned by the specific policies ECO1 and ECO 2 in the rows below.

Policy	Summary	Compliance
ECO1	<i>Cumulative impacts affecting the ecosystem of the East marine plans and adjacent areas (marine, terrestrial) should be addressed in decision-making and plan implementation.</i>	Cumulative impacts with respect to marine mammals have been assessed in section 11.7 of ES Chapter 11 Marine Mammals . The plans and projects screened into the assessment are located in the relevant marine mammal reference population areas for harbour porpoise, grey seal and harbour seal (as defined in Table 11.17). Full information on the CIA screening methods and projects screened in to the assessment are provided in ES Appendix 11.3 Marine Mammal Cumulative Impact Assessment (CIA) screening . Cumulative Impacts have been assessed as minor adverse and will therefore not be significant.
Objective 7	<i>High level objective 7 is to protect, conserve and, where appropriate, recover biodiversity that is in or dependent upon the East marine plan areas</i>	This is the high-level objective, reflective of the Marine Policy Statement and it is underpinned by the specific policies BIO1 and BIO 2 in the rows below.
BIO1	<i>Appropriate weight should be attached to biodiversity, reflecting the need to protect biodiversity as a whole, taking account of the best available evidence including on habitats and species that are protected or of conservation concern in the East marine plans and adjacent areas (marine, terrestrial).</i>	The siting, design and refinement of the proposed East Anglia TWO project has followed an iterative site selection process. This has taken account of environmental, physical, technical, commercial and social considerations and opportunities as well as engineering requirements. Strategic level project design alternatives are presented in section 4.4.2 of ES Chapter 4 Site Selection and Assessment of Alternatives . The embedded mitigation outlined in section 11.3.3 of ES Chapter 11 Marine Mammals highlights the design measures and construction phase considerations to avoid or minimise impacts upon marine mammals.
BIO2	<i>Where appropriate, proposals for development should incorporate features that enhance biodiversity and geological interests.</i>	With respect to marine mammals, the proposed East Anglia TWO project does not include specific measures to enhance

Policy	Summary	Compliance
		biodiversity, however the mitigation measures described in response to EN-1 Sections 2.6.94 to 2.6.96 in this compliance table will ensure that biodiversity remains protected.

6.7 Offshore Ornithology

293. Compliance with policies relating to offshore ornithology are presented in **Table 6.7**. Full details of the assessment and potential impacts on marine ecology that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 12 Offshore Ornithology**.

294. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.7** below in relation to offshore ornithology.

Table 6.7 Offshore Ornithology Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.3.5 Biodiversity	<p><i>The Government's biodiversity strategy is set out in 'Working with the grain of nature'99. Its aim is to ensure:</i></p> <ul style="list-style-type: none"> <i>a halting, and if possible a reversal, of declines in priority habitats and species, with wild species and habitats as part of healthy, functioning ecosystems; and</i> <i>the general acceptance of biodiversity's essential role in enhancing the quality of life, with its conservation becoming a natural consideration in all relevant public, private and non-governmental decisions and policies.</i> 	<p>A species for which individuals at risk can be clearly connected to a particular Special Protection Area (SPA) is assigned as high conservation value. Designated sites are set out in section 12.5.2 of ES Chapter 12 Offshore Ornithology and are as follows:</p> <ul style="list-style-type: none"> Outer Thames Estuary SPA for wintering seabirds, specifically red throated diver; Greater Wash SPA for wintering seabirds, specifically red throated diver and little gull; Alde-Ore Estuary SPA, Ramsar and SSSI for breeding seabirds, specifically lesser black-backed gull; and

Policy	Summary	Compliance
		<ul style="list-style-type: none"> Flamborough and Filey Coast SPA and SSSI for breeding seabirds, specifically gannet, kittiwake, razorbill and guillemot. <p>The assessment of the ornithological interest features of the above sites has been carried out through the Information to Support Appropriate Assessment Report (document reference 5.3). The conservation objectives of these sites are to <i>maintain</i> and <i>restore</i>. The Information to Support Appropriate Assessment (document 5.3) concluded that the conservation objectives of these sites would not be undermined and therefore that there would be no adverse effect on site integrity at the above sites. The proposed East Anglia TWO project will therefore not contribute to further habitat and species declines or undermine the Government's biodiversity strategy.</p>
Section 5.3.6 Biodiversity	<p><i>In having regard to the aim of the Government's biodiversity strategy the IPC should take account of the context of the challenge of climate change: failure to address this challenge will result in significant adverse impacts to biodiversity. The policy set out in the following sections recognises the need to protect the most important biodiversity and geological conservation interests. The benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests. The IPC may take account of any such net benefit in cases where it can be demonstrated.</i></p>	<p>The benefits of delivering this project with regards to nationally significant low carbon energy are described in this document in Need and the Case for the Development. The proposed East Anglia TWO project has the potential to make a substantial contribution to UK 2030 energy targets by meeting approximately 4% of the UK offshore wind cumulative deployment target for 2030 (CCC 2018). Moreover, the proposed East Anglia TWO project would have a direct positive impact by providing up to 900MW of renewable energy through and displacing the equivalent generating capacity from sources that might otherwise produce higher levels of pollution and disturbance to such species. The project would also secure renewable energy supply for up to 800,416 UK households.</p> <p>As described above, the Information to Support Appropriate Assessment Report (document 5.3) concluded no adverse effect</p>

Policy	Summary	Compliance
		<p>on site integrity, and impacts assessed in the ES (section 12.6 and 12.7 of ES Chapter 12 Offshore Ornithology) range from negligible to minor adverse (including cumulative assessment).</p> <p>As described in section 12.5.3 of ES Chapter 12 Offshore Ornithology, climate change is likely to be the strongest influence on seabird populations in the coming years. It is highly likely that breeding numbers of most of our seabird species will continue to decline under a scenario with continuing climate change due to increasing levels of greenhouse gases. A key component of global strategies to reduce climate change is the development of low-carbon renewable energy developments such as the proposed East Anglia TWO project.</p>
Section 5.3.7 Biodiversity	<p><i>As a general principle, and subject to the specific policies below, development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives (as set out in Section 4.4 above); where significant harm cannot be avoided, then appropriate compensation measures should be sought.</i></p>	<p>A robust Information to Support Appropriate Assessment Report (document 5.3) has been conducted which considers project impacts on biodiversity. Furthermore, ES Chapter 12 Offshore Ornithology concluded that the proposed East Anglia TWO project is predicted to have either negligible to minor adverse impacts on birds during construction, operation and decommissioning.</p> <p>The embedded mitigation outlined in ES section 12.3.3 of Chapter 12 Offshore Ornithology and the site selection process described in ES section 4.4 of Chapter 4 Site Selection and Assessment of Alternatives will also minimise impacts.</p>
Section 5.3.8 Biodiversity	<p><i>In taking decisions, the IPC should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; habitats and other species of principal</i></p>	<p>Sites of importance are set out in section 12.5.2 of ES Chapter 12 Offshore Ornithology and are as follows:</p> <ul style="list-style-type: none"> • Outer Thames Estuary SPA for wintering seabirds, specifically red throated diver;

Policy	Summary	Compliance
	<p><i>importance for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment</i></p>	<ul style="list-style-type: none"> • Greater Wash SPA for wintering seabirds, specifically red throated diver and little gull; • Alde-Ore Estuary SPA, Ramsar and SSSI for breeding seabirds, specifically lesser black-backed gull; and • Flamborough and Filey Coast SPA and SSSI for breeding seabirds, specifically gannet, kittiwake, razorbill and guillemot. <p>As described in response to EN-1 Section 5.3.5, definitions of conservation value (or high priority) are described in section 12.4.3.2 of ES Chapter 12 Offshore Ornithology. A species for which individuals at risk can be clearly connected to a particular Special Protection Area (SPA or pSPA) is assigned as high conservation value. This provides a measure of the level of weight attached to these designated sites and species.</p> <p>The assessment of the ornithological interest features of the above sites has been carried out through the Information to Support Appropriate Assessment Report (document reference 5.3), specifically in section 4. The conservation objectives of these sites are to <i>maintain</i> and <i>restore</i>. The HRA concluded that the conservation objectives of these sites would not be undermined and therefore no adverse effect on site integrity.</p>
<p>Section 5.3.9 International Sites</p>	<p><i>The most important sites for biodiversity are those identified through international conventions and European Directives. The Habitats Regulations provide statutory protection for these sites but do not provide statutory protection for potential Special Protection Areas (pSPAs) before they have been classified as a Special Protection Area. For the purposes of considering development proposals affecting them, as a matter of policy the Government wishes pSPAs</i></p>	<p>Flamborough and Filey Head SPA and Outer Thames Estuary Extension SPA were originally relevant before they were designated. These are now considered as per all other SPAs in the Information to Support Appropriate Assessment Report (document 5.3)</p> <p>Alde-Ore Estuary Ramsar was also assessed in ES Chapter 12 Offshore Ornithology. Alde-Ore Estuary is designated for its</p>

Policy	Summary	Compliance
	<i>to be considered in the same way as if they had already been classified. Listed Ramsar sites should, also as a matter of policy, receive the same protection.</i>	breeding populations of the lesser black-backed gull. Impacts were assessed as negligible to minor adverse (section 12.6 of ES Chapter 12 Offshore Ornithology).
Section 5.3.16 and 5.3.17 Protection of Habitats and Other Species	<i>Many individual wildlife species receive statutory protection under a range of legislative provisions. Other species and habitats have been identified as being of principal importance for the conservation of biodiversity in England and Wales and thereby requiring conservation action. The IPC should ensure that these species and habitats are protected from the adverse effects of development by using requirements or planning obligations. The IPC should refuse consent where harm to the habitats or species and their habitats would result, unless the benefits (including need) of the development outweigh that harm. In this context the IPC should give substantial weight to any such harm to the detriment of biodiversity features of national or regional importance which it considers may result from a proposed development.</i>	Other bird species recorded during site-specific surveys are listed and described in ES Appendix 12.2 Ornithology Technical Appendix This includes digital photographic aerial bird surveys of the windfarm site plus a 4km buffer. Section 12.5.1 of ES Chapter 12 Offshore Ornithology summarises the key species and their conservation status. The locations of all species observed are plotted on figures in ES Appendix 12.1 Ornithology Technical Appendix . Species assessed for impacts are those which were recorded during surveys and which are considered to be at potential risk either due to their abundance, potential sensitivity to windfarm impacts or due to biological characteristics (e.g. tendency to fly at rotor heights) which make them potentially susceptible. Impacts were assessed as minor adverse to negligible (section 12.6 of ES Chapter 12 Offshore Ornithology).
EN-3		
Section 2.6.68 Biodiversity	<i>The IPC should consider the effects of a proposal on marine ecology and biodiversity taking into account all relevant information made available to it.</i>	Assessments of offshore ecology and biodiversity impacts for all stages of the lifespan of the proposed East Anglia TWO project have been addressed in section 12.6 of ES Chapter 12 Offshore Ornithology . The scope, effort and methods required for ornithological surveys have been discussed with statutory advisors as shown in section 12.2 of ES Chapter 12 Offshore Ornithology

Policy	Summary	Compliance
		<p>Collision risk modelling has been carried out for all turbine scenarios based on the turbine specifications in ES Appendix 12.2 Baseline Offshore Ornithology Technical Report, Annex 3, Table 5.</p> <p>For each species, the turbine scenario which produces the highest collision risk has been used in the assessment in section 12.6.2.3 of ES Chapter 12 Offshore Ornithology. Impacts have been assessed as negligible to minor adverse (section 12.11).</p>
Section 2.6.69 Biodiversity	<i>The designation of an area as Natura 2000 site does not necessarily restrict the construction or operation of offshore wind farms in or near that area (see also Section 4.3 of EN-1).</i>	<p>There will be no adverse effect on site integrity for the Natura 2000 sites assessed as part of this project, which are:</p> <ul style="list-style-type: none"> • Outer Thames Estuary SPA • Greater Wash SPA • Alde-Ore Estuary SPA, Ramsar and SSSI • Flamborough and Filey Coast SPA and SSSI
Section 2.6.106 Birds	<i>In addition to Section 5.3 of EN-1 the offshore wind-specific biodiversity considerations set out in paragraphs 2.6.58 to 2.6.71 above should inform IPC decision-making.</i>	Compliance assessments against EN-3 Sections 2.6.68 – 2.29 are set out in the above rows of this table.

6.8 Commercial Fisheries

295. Compliance with policies relating to commercial fisheries are presented in **Table 6.8**. Full details of the assessment and potential impacts on the marine environment that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 13 Commercial Fisheries**.
296. The potential impacts of offshore wind farms on commercial fisheries are presented in EN-3, which states that the construction and operation of offshore wind farms can have positive and negative effects on fish and shellfish stocks. As part of the EIA, East

Anglia TWO Limited undertook an assessment to determine the impacts of the project on commercial fishery interests. Specific consideration was given in the EIA to aspects including safety, access, interference and impacts on commercially exploited species.

297. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.8** below in relation to commercial fisheries.

Table 6.8 Commercial Fisheries Policy Compliance

Policy	Summary	Compliance
EN-3		
Section 2.6.132 Commercial Fisheries and Fishing	<i>The IPC should be satisfied that the site selection process has been undertaken in a way that reasonably minimises adverse effects on fish stocks, including during peak spawning periods and the activity of fishing itself. This will include siting in relation to the location of prime fishing grounds. The IPC should consider the extent to which the proposed development occupies any recognised important fishing grounds and whether the project would prevent or significantly impede protection of sustainable commercial fisheries or fishing activities. Where the IPC considers the wind farm would significantly impede protection of sustainable fisheries or fishing activity at recognised important fishing grounds, this should be attributed correspondingly significant weight.</i>	<p>The ZAP process incorporated consideration of commercial fisheries and ecological processes such as spawning. This helped shape the site selection to minimise adverse effects on fish stocks and fishing activity</p> <p>Data from MMO surveillance sightings was used to ascertain the level of fishing activity and therefore served as an indicator of prime fishing grounds.</p> <p>The East Anglia TWO windfarm site is of a small scale in comparison to the area fished by Dutch and Belgian vessels. Cod, plaice, sole and thornback ray are the principal species targeted in the offshore development area. Shellfish species such as European lobsters and brown crabs are also targeted. Impacts associated with commercial fisheries during construction, operation and decommissioning was judged to be minor for the proposed East Anglia TWO project alone and cumulatively with other projects (sections 13.6 and 13.7 of ES Chapter 13 Commercial Fisheries).</p>

Policy	Summary	Compliance
		<p>UK vessels from ports along the Suffolk and Norfolk coast area are more limited in their range however and potential impacts were identified in relation to the inshore cable corridor area. To mitigate these impacts, a Commercial Fisheries Working Group (CWFG) has been created to act as a forum in which potential impacts can be discussed and appropriate mitigation or compensation agreed to avoid or reduce them.</p> <p>Section 10.5.6 of ES Chapter 10 Fish and Shellfish Ecology details the species taken forward for assessment with regards to spawning ground impacts. The effects that have been assessed are anticipated to result in changes of negligible or minor adverse significance</p>
<p>Section 2.6.133 Commercial Fisheries and Fishing</p>	<p><i>The IPC should be satisfied that the applicant has sought to design the proposal having consulted representatives of the fishing industry with the intention of minimising the loss of fishing opportunity taking into account effects on other marine interests. Guidance has been jointly agreed by the renewables and fishing industries on how they should liaise with the intention of allowing the two industries to successfully co-exist.</i></p>	<p>Section 13.2 and ES Appendix 13.1 Consultation Responses of ES Chapter 13 Commercial Fisheries details the consultation to date with fisheries stakeholders. This includes stakeholders such as MMO, Norfolk County Council and the Planning Inspectorate.</p> <p>As a commitment to minimising loss of fishing activity and to ensure and maintain regular communication, CWFG has been established to cover liaison in respect to East Anglia TWO. The CFWG has a representative from each local port which could potentially be impacted by the proposed East Anglia TWO project (Orford, Aldeburgh, Harwich, Felixstowe, Lowestoft and Southwold). The CFWG aims to identify and develop co-existence strategies during a project's lifecycle. A Co-existence and Fisheries Liaison Plan will be produced for the proposed East Anglia TWO project, post-consent. It is expected that the</p>

Policy	Summary	Compliance
		CFWG will also be used to discuss any mitigation necessary for the proposed East Anglia TWO project where appropriate.
East Inshore and East Offshore Marine Plans		
Objective 10	<i>To ensure integration with other plans, and in the regulation and management of key activities and issues, in the East marine plans, and adjacent areas.</i>	This is the high-level objective, reflective of the Marine Policy Statement and is underpinned by the specific policies FISH1 and FISH2 in the rows below.
FISH1	<p><i>Within areas of fishing activity, proposals should demonstrate in order of preference:</i></p> <ul style="list-style-type: none"> <i>a. that they will not prevent fishing activities on, or access to, fishing grounds</i> <i>b. how, if there are adverse impacts on the ability to undertake fishing activities or access to fishing grounds, they will minimise them</i> <i>c. how, if the adverse impacts cannot be minimised, they will be mitigated</i> <i>d. the case for proceeding with their proposal if it is not possible to minimise or mitigate the adverse impacts</i> 	<p>a) Section 13.6.1.2 of ES Chapter 13 Commercial Fisheries assesses the potential impact of temporary loss or restricted access to fishing grounds. During construction, restricted access or loss of traditional fishing grounds would be a consequence of the implementation of temporary safety zones around construction activities, partially installed infrastructure and vulnerable sections of cables.</p> <p>It should be noted, however, that the total area from which fishing may be excluded may change depending on the level of works being carried out and the level of infrastructure installed or partially installed at a given time. With regards to installation of offshore cables, the actual area and duration of potential exclusion may change depending on the installation method used. For example, simultaneous lay and burial techniques, as used on many previous windfarm projects, could shorten the period of exclusion. Fishing activity is generally low in the proposed offshore development area.</p> <p>Residual impacts on Dutch beam trawlers, seine netters and other methods range from minor adverse to negligible. The</p>

Policy	Summary	Compliance
		<p>same is true for Belgian, French, Danish, German and UK fishing vessels.</p> <p>b) Any adverse impacts on ability to undertake fishing activities will be minimised via the CFWG as described in response to EN-3 Section 2.6.132 and 133 in this compliance table.</p> <p>c) As described above, impacts are assessed as minor adverse. In respect of the potential impact on individual vessels for which the magnitude of the effect may be medium, the significance of the impact before mitigation is moderate adverse and therefore significant in EIA terms. It should be noted, however, that in instances when fishing gear may need to be temporarily relocated due to construction activities, appropriate evidence-based mitigation, as specified in the FLOWW Guidelines (section 13.4.1 of ES Chapter 13 Commercial Fisheries) will be applied. With the implementation of the above, the residual impact on these vessels would be reduced to minor adverse.</p> <p>d) As summarised in section 13.10, all impacts are able to be minimised or mitigated so that there are no significant adverse impacts.</p>
FISH2	<p><i>Proposals should demonstrate, in order of preference:</i></p> <ul style="list-style-type: none"> <i>a. that they will not have an adverse impact upon spawning and nursery areas and any associated habitat</i> <i>b. how, if there are adverse impacts upon the spawning and nursery areas and any associated habitat, they will minimise them</i> <i>c. how, if the adverse impacts cannot be minimised they will be mitigated</i> 	<p>a) Section 10.6.1.1 of ES Chapter 10 Fish and Shellfish Ecology assesses the impact of physical disturbance and temporary loss of seabed habitat, spawning or nursery grounds during intrusive works. A maximum area of 10,543,760m² of seabed habitat within the offshore development area would be temporarily disturbed or lost</p>

Policy	Summary	Compliance
	<p>d. <i>the case for proceeding with their proposals if it is not possible to minimise or mitigate the adverse impacts</i></p>	<p>during the construction phase this equates to 2.79% of the offshore development area.</p> <p>In the case of herring, as shown by ES Figure 10.14, the proposed offshore development area does not overlap with spawning grounds, however the windfarm site is 4.4km from a spawning area to the southeast. It can be seen from ES Figures 10.15 to 10.17 that although herring larvae have been recorded within the East Anglia TWO windfarm site, this was at low abundances.</p> <p>As shown in ES Figure 10.26, the offshore development area overlaps with sandeel spawning and nursery grounds and the whole offshore development areas overlaps with low intensity sandeel spawning and nursery grounds.</p> <p>Impacts on spawning and nursery grounds for Herring and sandeel have been assessed as minor adverse. Impacts on Shellfish, eggs and larvae are also assessed as minor adverse.</p> <p>b) As described above, impacts have been assessed as minor adverse and therefore no additional mitigation is required further to the embedded mitigation measures outlined in section 10.3.3 of ES Chapter 10 Fish and Shellfish Ecology.</p> <p>c) As above – see answer to b)</p> <p>d) No significant adverse impacts are predicted spawning, nursery grounds or associated habitat, therefore it would be appropriate for the proposed East Anglia TWO project to proceed.</p>

6.9 Shipping and Navigation

298. Compliance with policies relating to shipping and navigation are presented in **Table 6.9**. Full details of the assessment and potential impacts on the marine environment that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 14 Shipping and Navigation**.

East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.9** below in relation to shipping and navigation.

Table 6.9 Shipping and Navigation Policy Compliance

Policy	Summary	Compliance
EN-3		
Section 2.6.161 Navigation and Shipping	<p><i>The IPC should not grant development consent in relation to the construction or extension of an offshore wind farm if it considers that interference with the use of recognised sea lanes essential to international navigation is likely to be caused by the development.</i></p> <p><i>The use of recognised sea lanes essential to international navigation means:</i></p> <p><i>(a) anything that constitutes the use of such a sea lane for the purposes of article 60(7) of the United Nations Convention on the Law of the Sea 1982; or</i></p> <p><i>(b) any use of waters in the territorial sea adjacent to Great Britain that would fall within paragraph (a) if the waters were in a Renewable Energy Zone (REZ).</i></p>	<p>Shipping and navigation has been factored into the site selection under the ZAP process described in ES section 4.7.2 of Chapter 4 Site Selection Assessment of Alternative. Section 14.4.1 of ES Chapter 14 Shipping and Navigation describes the primary guidance used in the assessment which includes Marine Guidance Note (MGN) 543 which highlights key considerations when assessing the effect on navigational safety from offshore renewable energy projects, proposed UK internal waters, territorial sea or Renewable Energy Zones (REZ). An MGN checklist is presented in ES Appendix 14.6 MGN 543 Checklist</p> <p>Within the vicinity of the East Anglia TWO windfarm site, there are IMO routing measures in place within the southern North Sea. In particular, the Deep-Water Route (DWR) to the east of the East Anglia TWO windfarm site (noting that East Anglia ONE lies between the East Anglia TWO windfarm site and the DWR), and the Sunk Traffic Separation Scheme (TSS) south of the East</p>

Policy	Summary	Compliance
		<p>Anglia TWO windfarm site (section 14.5.1 of ES Chapter 14 Shipping and Navigation).</p> <p>A total of 16 main routes were identified from the marine traffic survey data. Full details of the base case routes are presented in section 14 of ES Appendix 14.2 East Anglia TWO Offshore Windfarm Navigational Risk Assessment. A summary of each is presented in section 14.5.3 of ES Chapter 14 Shipping and Navigation. Of these 16 routes, there are four routes that would require deviation during the construction, operation and maintenance and decommissioning phases of the East Anglia TWO windfarm site:</p> <ul style="list-style-type: none"> • Route 2: consists of commercial ferries (passenger and Ro Ro) and used by approximately seven vessels per day, between Harwich/Felixstowe and the Hook of Holland; • Route 3: consists of cargo vessels and commercial ferries and used by approximately two vessels per day, between Zeebrugge and ports within the Humber; • Route 12: consists of cargo vessels, commercial ferries and tankers and used by approximately one vessel per day, between Newcastle upon Tyne (UK) and the Dover Strait; and • Route 15: consists of cargo vessels and tankers and used by approximately one vessel per day, between ports within the Thames Estuary and Norway/Sweden. • Marine traffic assessment undertaken with the NRA (ES Appendix 14.2) showed regular routed commercial traffic crossing the offshore cable corridor.

Policy	Summary	Compliance
		<p>Stakeholder workshops (section 14.2 of ES Chapter 14 Shipping and Navigation) and computer modelling (section 14.4) were used to identify which types of vessels may be impacted by the proposed East Anglia TWO project. The assessment identified suitable ways to reduce the scale of these impacts to acceptable levels.</p> <p>Potential impacts during construction, operation and decommissioning range from broadly acceptable to tolerable.</p> <p>Broadly acceptable is defined as: Risk ALARP with no additional mitigations or monitoring required above embedded mitigations. Includes impacts that have no perceptible effect (effect would not be noticeable to receptors).</p> <p>Tolerable is defined as: Risk acceptable but may require additional mitigation measures and monitoring in place to control and reduce to ALAR (section 3.1 of ES Appendix 14.2 East Anglia TWO Offshore Windfarm Navigational Risk Assessment).</p> <p>Overall, given the distances between the East Anglia TWO windfarm site and other developments, cumulative impacts were considered to be acceptable. The assessment included impacts to vessels from other countries outside the UK and concluded that these would be within tolerable limits (ES Appendix 14.2). These broadly acceptable and tolerable impact definitions equate to non significant impacts, therefore would not constitute interference of United Nations Convention on the Law of the Sea.</p>

Policy	Summary	Compliance
<p>2.6.162 Navigation and Shipping</p>	<p><i>The IPC should be satisfied that the site selection has been made with a view to avoiding or minimising disruption or economic loss to the shipping and navigation industries with particular regard to approaches to ports and to strategic routes essential to regional, national and international trade, lifeline ferries and recreational users of the sea.</i></p> <p><i>Where a proposed development is likely to affect major commercial navigation routes, for instance by causing appreciably longer transit times, the IPC should give these adverse effects substantial weight in its decision making.</i></p> <p><i>There may, however, be some situations where reorganisation of traffic activity might be both possible and desirable when considered against the benefits of the wind farm proposal. Such circumstances should be discussed with the MCA and the commercial shipping sector and it should be recognised that alterations might require national endorsement and international agreement and that the negotiations involved may take considerable time and do not have a guaranteed outcome.</i></p>	<p>As described above, the site was located so that there were only four routes where potential disruption may occur to the shipping and navigation industries. Some of which is of importance to international trade.</p> <p>Section 15 of ES Appendix 14.2 East Anglia TWO Offshore Windfarm Navigational Risk Assessment demonstrates the re-routing analysis for the required reorganisation of traffic activity. Increases in route distances for vessels displaced by the windfarm site would be minimised by the promulgation of information (including charting) which would enable vessels to passage plan in advance of encountering the East Anglia TWO windfarm site. The East Anglia TWO windfarm site will be charted throughout all phases and during periods of construction and maintenance, ongoing activities would be promulgated through Notice to Mariners, Kingfisher Information Service Offshore Renewable Cable Awareness (KIS-ORCA) and other standard methods of communication to ensure that vessel Masters are able to effectively passage plan to minimise deviations and avoid current areas of activity (section 14.6.1.1.2).</p> <p>Impacts on adverse weather routeing in the southern North Sea are expected to be low due to the East Anglia TWO windfarm site. The hazard workshop with stakeholders such as MCA and Trinity House (see section 20 of ES Appendix 14.2) identified that there may be displacement of commercial vessels on established adverse weather routes but that the frequency of occurrence would be low given the small percentage of adverse weather experienced throughout a year</p>

Policy	Summary	Compliance
		The assessment identified suitable ways to reduce the scale of these impacts to acceptable levels (as described above in response to EN-3 Section 2.6.161). Decommissioning impacts are expected to be no greater than those construction impacts identified. No significant adverse impacts were identified in the ES Chapter 14 Shipping and Navigation .
2.6.163 Navigation and Shipping	<i>Where a proposed offshore wind farm is likely to affect less strategically important shipping routes, a pragmatic approach should be employed by the IPC. For example, vessels usually tend to transit point to point routes between ports (regional, national and international). Many of these routes are important to the shipping and ports industry as is their contribution to the UK economy. In such circumstances the IPC should expect the applicant to minimise negative impacts to as low as reasonably practicable (ALARP). Again, there may be some situations where reorganisation of traffic activity might be both possible and desirable when considered against the benefits of the wind farm application and such circumstances should be discussed with the MCA and the commercial shipping sector</i>	No significant adverse effects on shipping routes are envisaged. The NRA was conducted in consultation with MCA and other stakeholders. Marine traffic coordination will be implemented as part of the embedded mitigation measures (ES Chapter 14 Section 14.3.3). Information relevant to the offshore development area will also be promulgated via Notice to Mariners and other media. There will also be a dedicated Marine Coordination Centre to manage on site vessels.
2.6.164 Navigation and Shipping	<i>A detailed Search and Rescue Response Assessment should be undertaken prior to commencement of construction should consent for the offshore wind farm be granted. This assessment could be secured by a requirement to any consent. However, where there are significant concerns over the frequency or the consequences of such incidents, a full assessment may be required before the application can be determined.</i>	Any additional navigational safety and/or Search and Rescue (SAR) will be agreed post consent and prior to commencement of any activities with MMO and MCA. Details of the final turbine layout design require submission to the MMO as per the draft DML.

Policy	Summary	Compliance
<p>2.6.165 Navigation and Shipping</p>	<p><i>The IPC should not consent applications which pose unacceptable risks to navigational safety after all possible mitigation measures have been considered.</i></p>	<p>The ES has considered potential impacts (during construction, operation, decommissioning and cumulatively) on:</p> <ul style="list-style-type: none"> • Commercial vessel routing; • Commercial vessel safe navigation; • Marine aggregate dredgers; • Commercial fishing vessels; • Recreational craft; and • Emergency response capability <p>Impacts range from no impact to tolerable and as low as reasonably practicable. Impacts have been assessed as broadly acceptable and therefore no unacceptable risks to navigational safety will occur. Further to the embedded mitigation described in section 14.3.3 of ES Chapter 14 Shipping and Navigation, no additional mitigation is required.</p>
<p>2.6.166 Navigation and Shipping</p>	<p><i>The IPC should be satisfied that the scheme has been designed to minimise the effects on recreational craft and that appropriate mitigation measures, such as buffer areas, are built into applications to allow for recreational use outside of commercial shipping routes. In view of the level of need for energy infrastructure, where an adverse effect on the users of recreational craft has been identified, and where no reasonable mitigation is feasible, the IPC should weigh the harm caused with the benefits of the scheme</i></p>	<p>Section 14.6 of ES Chapter 14 Shipping and Navigation considers potential impacts on recreational craft in addition to commercial and other vessels. Construction safety zones may displace traffic temporarily for the construction phase and would be managed through effective promulgation of information and active safety measures. Impacts on recreational craft are assessed as broadly acceptable (section 14.10).</p>

Policy	Summary	Compliance
<p>2.6.167 Navigation and Shipping</p>	<p><i>Providing proposed schemes have been carefully designed by the applicants, and that the necessary consultation with the MCA and the other navigation stakeholders listed above has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on navigation to a level sufficient to enable the IPC to grant consent. The MCA will use the NRA as described in paragraph 2.6.156 above when advising the IPC on any mitigation measures proposed.</i></p>	<p>Consultation has been undertaken with the MCA and other key stakeholders (see section 14.2 of ES Chapter 14 Shipping and Navigation) at an early stage in order to influence the proposed East Anglia TWO project design.</p> <p>With regards to required re-routeing, concerns were raised during consultation with Chamber of Shipping (CoS) on choke points in traffic particularly entering and leaving Harwich and Felixstowe. The southern area of the East Anglia TWO windfarm site was highlighted due to potential impacts on eastbound and westbound traffic. The hazard workshop also identified that the East Anglia TWO windfarm site may displace established commercial vessel routes and established commercial vessel adverse weather routeing. This has been addressed in the ES Chapter in sections 14.6.1.1.2 and 14.6.1.1.3 respectively.</p> <p>A full summary of consultation comments received, and subsequent responses is presented in ES Appendix 14.1 Consultation Responses of ES Chapter 14 Shipping and Navigation.</p> <p>The embedded mitigation measures to reduce navigational impacts are presented in section 14.3.3 of ES Chapter 14 Shipping and Navigation.</p> <p>An NRA has been undertaken and conclusions are presented in section 23 of ES Appendix 14.2 East Anglia TWO Offshore Windfarm Navigational Risk Assessment. Overall the cumulative impacts to shipping and navigation were assessed to be broadly acceptable (section 14.10 of ES Chapter 14 Shipping and Navigation).</p>

Policy	Summary	Compliance
2.6.168 Navigation and Shipping	<i>The IPC should, in determining whether to grant consent for the construction or extension of an offshore wind farm, and what requirements to include in such a consent, have regard to the extent and nature of any obstruction of or danger to navigation which (without amounting to interference with the use of such sea lanes) is likely to be caused by the development.</i>	After mitigation measures outlined in section 14.3.3 of ES Chapter 14 Shipping and Navigation are implemented, the residual impact for any obstruction or to danger to navigation is assessed as broadly acceptable (section 14.10).
2.6.169 Navigation and Shipping	<i>In considering what interference, obstruction or danger to navigation and shipping is likely and its extent and nature, the IPC should have regard to the likely overall effect of the development in question and to any cumulative effects of other relevant proposed, consented and operational offshore wind farms.</i>	The ES has considered the receptors described in response to EN-3 Section 2.6.165 . Impacts on all of these receptors have been assessed and range from no impact to broadly acceptable, with exception of commercial vessel safe navigation. Collision modelling was undertaken (section 17 and 18 of ES Appendix 14.2 East Anglia TWO Offshore Wind Farm Navigational Risk Assessment) and this impact was ultimately assessed as tolerable and as low as reasonably practicable. Cumulative impacts of the proposed East Anglia TWO project with other developments have been assessed as broadly acceptable (section 14.7 and 14.10 of ES Chapter 14 Shipping and Navigation).
East Inshore and East Offshore Marine Plan		
Objective 10	<i>To ensure integration with other plans, and in the regulation and management of key activities and issues, in the East marine plans, and adjacent areas.</i>	This is the high-level objective, reflective of the Marine Policy Statement and is underpinned by the specific policies PS1, PS2 and PS3 in the rows below.
PS1	<i>Proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance should not be authorised in IMO designated routes.</i>	The offshore development area is not situated within IMO designated routes as presented in ES Figure 14.1 therefore the project is compliant with this PS1.

Policy	Summary	Compliance
PS2	<p><i>Proposals that require static sea surface infrastructure that encroaches upon important navigation routes should not be authorised unless there are exceptional circumstances. Proposals should:</i></p> <p><i>Be compatible with the need to maintain space for safe navigation, avoiding economic impact;</i></p>	<p>The siting of the proposed East Anglia TWO windfarm site has taken into consideration the presence of important existing shipping and navigation routes and avoided them where possible.</p> <p>As per the results of the re-routing analysis (see response to EN-3 Section 2.2.162 in this compliance table), the promulgation of information (including charting) will enable vessels to passage plan in advance of encountering the East Anglia TWO windfarm site and therefore safe space for navigation will be maintained. Significantly, this information will also minimise increases in route distances for vessels displaced by the windfarm site, therefore avoiding economic impacts.</p>
	<p><i>Anticipate and provide for future safe navigational requirements where evidence and / or stakeholder input allows; and</i></p>	<p>Provision of future safe navigational requirements has been anticipated (section 14.5.4 of ES Chapter 14 Shipping and Navigation). As part of the collision and allision modelling in ES Appendix 14.2 East Anglia TWO Offshore Wind Farm Navigational Risk Assessment, an indicative increase of 10% for all vessel types was assessed; in addition to an assessment of risk should traffic levels remain constant.</p>
	<p><i>Account for impacts upon navigation in-combination with other existing and proposed activities.</i></p>	<p>Impacts upon navigation in-combination with other existing and proposed activities has been accounted for (section 14.7 of ES Chapter 14 Shipping and Navigation). These are presented in full in section 14.7.2.5 and include:</p> <ul style="list-style-type: none"> • East Anglia ONE • East Anglia ONE North • East Anglia THREE • Galloper

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • Hornsea Project One • Hornsea Project Three • Hornsea Project Two • Norfolk Boreas • Norfolk Vanguard • Mermaid • Northwester 2 • Poseidon P60 – Mermaid <p>Cumulative impacts of the proposed East Anglia TWO project with other developments have been assessed as broadly acceptable (section 14.7 and 14.10 of ES Chapter 14 Shipping and Navigation).</p>
PS3	<p><i>Proposals should demonstrate, in order of preference:</i></p> <p><i>That they will not interfere with current activity and future opportunity for expansion of ports and harbours;</i></p> <hr/> <p><i>How, if the proposal may interfere with current activity and future opportunities for expansion, they will minimise this;</i></p>	<p>With regards to shipping and navigation, the proposed East Anglia TWO project will not interfere with current activity and future opportunity for expansion of ports and harbours as the future baseline and shipping needs have been modelled and accounted for in section 14.5.4 of ES Chapter 14 Shipping and Navigation.</p> <p>With regards to ports and harbours, as per the Project Description, the project will not be sited within the footprint of any Ports or Harbours. Please also see Table 6.12 Infrastructure and Other Users Policy Compliance.</p> <hr/> <p>No significant adverse effects will occur on current vessel activity. As described in response to PS2 above, as part of the collision and allision modelling in ES Appendix 14.2 East Anglia TWO</p>

Policy	Summary	Compliance
		Offshore Wind Farm Navigational Risk Assessment , an indicative increase of 10% for all vessel types was assessed to capture potential increases in traffic due to future expansion.
	<i>How, if the interference cannot be minimised, it will be mitigated; and</i>	No significant interference on the receptors described in response to EN-3 Section 2.6.165 will occur and no additional mitigation is required (section 14.10 of ES Chapter 14 Shipping and Navigation). Embedded mitigation measures from the outset are detailed in section 14.3.3 of ES Chapter 14 Shipping and Navigation .
	<i>The case for proceeding if it is not possible to minimise or mitigate the interference.</i>	As described in sections above, there will be no significant interference and therefore the proposed East Anglia TWO project would be appropriate to proceed.

6.10 Civil and Military Aviation and Radar

299. Compliance with policies relating to civil and military aviation and radar are presented in **Table 6.10**. Full details of the assessment and potential impacts on aviation that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 15 Civil and Military Aviation and Radar**. Where other chapters are relevant these have also been signposted.
300. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.10** below in relation to civil and military aviation and radar.

Table 6.10 Civil and Military Aviation and Radar Policy Compliance

Policy	Summary	Compliance
EN-1		
4.15 Security Considerations	<p><i>National security considerations apply across all national infrastructure sectors. Overall responsibility for security of the energy sector lies with DECC. It works closely with Government security agencies including the Centre for the Protection of National Infrastructure (CPNI) to reduce the vulnerability of the most ‘critical’ infrastructure assets in the sector to terrorism and other national security threats...</i></p> <p><i>...Government policy is to ensure that, where possible, proportionate protective security measures are designed into new infrastructure projects at an early stage in the project development. Where applications for development consent for infrastructure covered by this NPS relate to potentially ‘critical’ infrastructure, there may be national security considerations.</i></p> <p><i>...The applicant should only include sufficient information in the application as is necessary to enable the IPC to examine the development consent issues and make a properly informed decision on the application.</i></p>	<p>Through consultation with the MoD, no national security considerations were identified. Full MoD consultation responses can be found in ES Appendix 15.2 Consultation Responses and 17.1 Consultation Responses.</p>
Section 5.4.14 Civil and military aviation and defence interests	<p><i>The IPC should be satisfied that the effects on civil and military aerodromes, aviation technical sites and other defence assets have been addressed by the applicant and that any necessary assessment of the proposal on aviation or defence interests has been carried out. In particular, it should be satisfied that the proposal has been designed to minimise adverse impacts on the operation and safety of aerodromes and that reasonable mitigation is carried out. It may also be appropriate to expect operators of the aerodrome to consider</i></p>	<p>The assessment provided in ES Chapter 15 Civil and Military Aviation and Radar established that, providing the proposed East Anglia TWO project is displayed properly on aviation charts, and there is adequate lighting of all wind turbines consistent with UK regulations, no significant impacts would occur as a result of the construction and decommissioning phase.</p> <p>The proposed offshore development area is located outside of any Ministry of Defence (MOD) danger, practice and exercise areas</p>

Policy	Summary	Compliance
	<p><i>making reasonable changes to operational procedures. When assessing the necessity, acceptability and reasonableness of operational changes to aerodromes, the IPC should satisfy itself that it has the necessary information regarding the operational procedures along with any demonstrable risks or harm of such changes, taking into account the cases put forward by all parties. When making such a judgement in the case of military aerodromes, the IPC should have regard to interests of defence and national security.</i></p>	<p>(section 17.3.3 of ES Chapter 17 Infrastructure and Other Users), therefore there will be no impact on other defence assets.</p>
<p>Section 5.4.15 Civil and military aviation and defence interests</p>	<p><i>If there are conflicts between the Government’s energy and transport policies and military interests in relation to the application, the decision maker should expect the relevant parties to have made appropriate efforts to work together to identify realistic and pragmatic solutions to the conflicts. In so doing, the parties should seek to protect the aims and interests of the other parties as far as possible.</i></p>	<p>The infrastructure within the East Anglia TWO windfarm site has been configured to minimise conflicts with other users. Where potential conflict was highlighted by consultation with the (MOD) (ES Appendix 14.1 Consultation Responses), the Applicant has proposed the following mitigation to reduce or negate impacts:</p> <ul style="list-style-type: none"> • Complying with appropriate international and national requirements for the promulgation of the obstacle locations on charts and in aeronautical documentation, together with the permanent marking and lighting of obstacles. <p>With respect to specific comments raised by the MoD regarding radar interference, Section 15.6.2.2 of ES Chapter 15 Civil and Military Aviation and Radar presents mitigation measures for Cromer Air Traffic Control (ATC) and Primary Surveillance Radars (PSRs) and Trimmingham Air Defence (AD) and PSRs. These mitigation measures are further summarised in ES Appendix 15.1 Airspace Analysis and Radar Modelling. With mitigation in place, the residual impacts are all considered not significant and no further conflicts have been identified.</p>

Policy	Summary	Compliance
<p>Section 5.4.16</p> <p>Civil and military aviation and defence interests</p>	<p><i>There are statutory requirements concerning lighting to tall structures. Where lighting is requested on structures that goes beyond statutory requirements by any of the relevant aviation and defence consultees, the decision maker should satisfy itself of the necessity of such lighting taking into account the case put forward by the consultees. The effect of such lighting on the landscape and ecology may be a relevant consideration.</i></p>	<p>Lighting and marking requirements are addressed in section 15.3.3.2 of ES Chapter 15 Civil and Military Aviation. The East Anglia TWO windfarm site will be lit in accordance with best practice and latest guidance (currently CAP 393), and to satisfy MoD requirements, the wind turbines would also be fitted with infra-red lighting in combination with the ANO Article 223 lights. These measures result in no significant impacts to civil and military aviation.</p> <p>The effect of lighting on the landscape/seascape has been considered in Table 6.23 Seascape, Landscape and Visual Impact Assessment, and Landscape and Visual Impact Assessment Policy Compliance</p> <p>The impact of lighting on offshore ornithology has been considered in Table 6.7 Offshore Ornithology Policy Compliance.</p>
<p>Section 5.4.17</p> <p>Civil and military aviation and defence interests</p>	<p><i>Where, after reasonable mitigation, operational changes, obligations and requirements have been proposed, the decision maker considers that:</i></p> <ul style="list-style-type: none"> • <i>A development would prevent a licensed aerodrome from maintaining its licence;</i> • <i>The benefits of the proposed development are outweighed by the harm to aerodromes serving business, training or emergency service needs, taking into account the relevant importance and need for such aviation infrastructure; or</i> • <i>The development would significantly impede or compromise the safe and effective use of defence assets or significantly limit military training;</i> 	<p>After mitigation, any remaining impacts from the proposed East Anglia TWO project have been considered not significant as shown in Table 15.9 of ES Chapter 15 Civil and Military Aviation and Radar and is therefore compliant with this test.</p>

Policy	Summary	Compliance
	<ul style="list-style-type: none"> <i>The development would have an impact on the safe and efficient provision of en route air traffic control services for civil aviation, in particular through an adverse effect on the infrastructure required to support communications, navigation or surveillance systems; consent should not be granted.</i> 	
EN-3		
Section 2.6.183 Oil, gas and other offshore infrastructure and activities	<i>Where a proposed offshore wind farm potentially affects other offshore infrastructure or activity, a pragmatic approach should be employed by the IPC. Much of this infrastructure is important to other offshore industries as is its contribution to the UK economy. In such circumstances the IPC should expect the applicant to minimise negative impacts and reduce risks to as low as reasonably practicable (ALARP).</i>	<p>Potential impacts on other offshore infrastructure is addressed in Table 6.12 Infrastructure and Other Users Policy Compliance. This answer focuses on civil and military aviation specifically.</p> <p>The potential impacts during construction, operation and decommissioning are detailed in section 15.6 and cumulative impacts are assessed in section 15.7 of ES Chapter 15 Civil and Military Aviation and Radar.</p> <p>After mitigation, the adverse impacts have been reduced to insignificant levels as shown in section 15.11 of ES Chapter 15 Civil and Military Aviation and Radar. Therefore, risks have been reduced to ALARP.</p>
Section 2.6.184 Oil, gas and other offshore infrastructure and activities	<i>The decision maker should be satisfied that the site selection and design of the proposed offshore windfarm has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries.</i>	<p>Potential impacts on other offshore infrastructure is addressed in Table 6.12 Infrastructure and Other Users Policy Compliance. This answer focuses on civil and military aviation specifically.</p> <p>The site selection and design of the proposed offshore windfarm has minimised disruption and economic loss to other offshore industries as described in ES Chapter 4 Site Selection and</p>

Policy	Summary	Compliance
		<p>Assessment of Alternatives. Specifically, ZEA incorporates economic characteristics of the former East Anglia zone into the site selection.</p> <p>After mitigation, adverse impacts have been reduced to insignificant levels as shown in section 15.11 of ES Chapter 15 Civil and Military Aviation and Radar.</p>
<p>Section 2.6.186 Oil, gas and other offshore infrastructure and activities</p>	<p><i>Providing proposed schemes have been carefully designed by the applicants and that the necessary consultation with relevant bodies has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure to a level sufficient to enable the decision maker to grant consent.</i></p>	<p>Potential impacts on other offshore infrastructure is addressed in Table 6.12 Infrastructure and Other Users Policy Compliance. This answer focuses on civil and military aviation specifically.</p> <p>Due to careful design and consultation, embedded mitigation measures alone will reduce impacts to insignificant levels as shown in section 15.11 of ES Chapter 15 Civil and Military Aviation and Radar.</p> <p>Section 17.3.3 of ES Chapter 17 Infrastructure and other users describes the embedded mitigation, which was taken at the earliest stage possible as part of the site selection process. Key site selection decisions are:</p> <ul style="list-style-type: none"> • Offshore development area located away from active oil and gas wells; • Offshore development area located outside any areas licenced for dredging and aggregate extraction; • Offshore development area located outside any MoD danger areas; and • Offshore development area located outside any MOD practice and exercise area.

6.11 Marine Archaeology and Cultural Heritage

301. Compliance with policies relating to offshore archaeology and cultural heritage are presented in **Table 6.11**. Full details of the assessment and potential impacts on the marine physical environment that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 16 Marine Archaeology and Cultural Heritage**.
302. EN-1 and EN-3 acknowledge that energy infrastructure holds potential to generate adverse effects on assets within the offshore historic environment. EN-3 states that the decision-maker needs to be satisfied that development of the type proposed (including associated infrastructure) has been designed sensitively, taking account of known heritage assets. Accordingly, East Anglia TWO Limited has undertaken detailed assessments as part of the EIA to identify the potential impacts of the project on offshore archaeology and cultural heritage. Full details of the EIA and potential impacts can be found in Chapter 16 Marine Archaeology and Cultural Heritage of the ES.
303. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.11** below in relation to offshore archaeology and cultural heritage.

Table 6.11 Marine Archaeology and Cultural Heritage Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.8.11 Historic Environment	<p><i>In considering applications, the IPC should seek to identify and assess the particular significance of any heritage asset that may be affected by the proposed development, including by development affecting the setting of a heritage asset, taking account of:</i></p> <ul style="list-style-type: none"> <i>evidence provided with the application;</i> <i>any designation records;</i> <i>the Historic Environment Record, and similar sources of information;</i> <i>the heritage assets themselves;</i> 	<p>A description of the significance of the marine heritage assets affected by the proposed development and the contribution of their setting to that significance, is provided throughout ES Chapter 16 Marine Archaeology and Cultural Heritage.</p> <p>The importance of the archaeological and cultural heritage receptors, including the contribution of setting to that significance, is detailed in section 16.5.5 and includes:</p> <ul style="list-style-type: none"> Palaeogeographic features of probable/possible archaeological interest (P1 and P2);

Policy	Summary	Compliance
	<ul style="list-style-type: none"> • <i>the outcome of consultations with interested parties; and</i> • <i>where appropriate and when the need to understand the significance of the heritage asset demands it, expert advice.</i> 	<ul style="list-style-type: none"> • Recorded wrecks (A1 and A3) • Geophysical anomalies of possible archaeological interest (A2) • World War II coastal and beach defences, and the potential for associated archaeological material buried within the beach; • Potential for the discovery of prehistoric sites and artefacts from the lower Palaeolithic to the Mesolithic; • Potential for the discovery of maritime related archaeological material from the late Mesolithic to the present; and • Potential for the discovery of aviation related archaeological material from the 20th century. <p>The above heritage assets are illustrated in ES Figures 16.3 and 16.4. Potential impacts arising as a result of the project upon marine heritage assets are considered in section 16.6.</p> <p>Consultation has been undertaken and this is summarised in ES Appendix 16.1 Consultation Responses which details the outcome of consultations with interested parties.</p> <p>The impacts on heritage assets range from positive benefit to minor adverse as shown in section 16.10 of ES Chapter 16 Marine Archaeology and Cultural Heritage, therefore there will be no significant adverse impacts.</p>
Section 5.8.12 Historic Environment	<i>In considering the impact of a proposed development on any heritage assets, the IPC should take into account the particular nature of the significance of the heritage assets and the value that they hold for this and future generations. This understanding should be used to avoid or minimise</i>	Heritage importance/significance is principally determined by the asset type. The marine heritage assets described above in response to EN-1 Section 5.8.11 can be classified per asset

Policy	Summary	Compliance
	<p><i>conflict between conservation of that significance and proposals for development.</i></p>	<p>type. Section 16.4.3.1 outlines criteria for determining heritage importance, which is summarised as follows:</p> <ul style="list-style-type: none"> • High (perceived International/National Importance) – e.g. World Heritage sites, Scheduled Monuments, Protected Wreck Sites); • Medium (perceived regional importance) – e.g. assets that contribute to regional research objectives; • Low (perceived local importance) – Assets that contribute to local research objectives; • Negligible – assets with no significant importance or archaeological/historical interest. <p>Please see section 16.5.5 for a full summary. This is further supported by ES Appendix 16.1 East Anglia TWO Offshore Windfarm Archaeological assessment of geophysical data and 16.2 East Anglia TWO Offshore Cable Corridor Archaeological assessment of geophysical data. Assets classified as being of high importance include:</p> <ul style="list-style-type: none"> • Potential in situ prehistoric sites; • Potential submerged landscape features; • Potential palaeoenvironmental material with specific palaeolandscape features or archaeological material; • Debris identified as possible wreck sites or associated debris; • Un-named wrecks and associated debris fields / debris;

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • Seabed disturbance associated with large magnetic anomaly • Previously recorded wrecks not seen in geophysical data • Additional anomalies • Potential wrecks; and • Potential aircraft. <p>The extent of any impacts caused by the proposed development on the significance of any heritage assets are addressed in section 16.6 of ES Chapter 16 Marine Archaeology and Cultural Heritage.</p> <p>A desk based assessment is provided in section 16.5 and further field evaluation reports in ES Appendix 16.2 East Anglia TWO Offshore Windfarm Archaeological Assessment of Geophysical Data and ES Appendix 16.3 East Anglia TWO Offshore Cable Corridor Archaeological Assessment of Geophysical Data.</p> <p>After mitigation measures are in place, the residual impacts on heritage assets range from positive benefit to minor adverse as shown in Tables 16.31 and 16.32 of ES Chapter 16 Marine Archaeology and Cultural Heritage.</p>
Section 5.8.13 Historic Environment	<i>The IPC should take into account the desirability of sustaining and, where appropriate, enhancing the significance of heritage assets, the contribution of their settings and the positive contribution they can make to sustainable</i>	Intertidal heritage assets are described in section 16.5.3 of ES Chapter 16 Marine Archaeology and Cultural Heritage . These include wrecks such as ‘Tricksey Wee’ and World War II defences such as pillboxes. These features are not deemed to be significant catalysts for regeneration in the area, although they do hold value for tourism and recreation. An assessment

Policy	Summary	Compliance
	<p><i>communities and economic vitality¹⁸. The IPC should take into account the desirability of new development making a positive contribution to the character and local distinctiveness of the historic environment. The consideration of design should include scale, height, massing, alignment, materials and use. The IPC should have regard to any relevant local authority development plans or local impact report on the proposed development in respect of the factors set out in footnote 4.</i></p>	<p>of heritage features and their importance is provided in section 16.5.5.</p> <p>The activities contributing to the area's 'sense of place' are described in section 16.5.4 and range from submarine telecommunication cables to boating and recreation.</p> <p>The proposed East Anglia TWO project is expected to deliver potential beneficial change to perceptions of local character to character sub types, thus enhancing heritage significance of assets, such as naval battlefield and World War II defence areas through the provision of publicly available data. The same is true of:</p> <ul style="list-style-type: none"> • The Palaeolandscape via geoarchaeological survey data - There is the potential for positive enhancement of primary perceptions associated with a growing interest in submerged landscapes through the provision of publicly available data on palaeolandscapes following the further archaeological and geoarchaeological assessment of survey data.; • Coarse sediment plains, fine sediment plains, mixed sediment plains and sand banks with sand waves; • Hydrocarbon pipeline - Overall, perceptions of the North Sea energy industry place greater emphasis upon nuclear power and renewable energy. The HSC

¹⁸ This can be by virtue of:

- Heritage assets having an influence on the character of the environment and an area's sense of place:
- Heritage assets having a potential to be a catalyst for regeneration in an area, particularly through leisure, tourism and economic development:
- Heritage assets being a stimulus to inspire new development of imaginative and high quality design;
- The re-use of existing fabric, minimising waste; and
- The mixed and flexible patterns of land use in historic area that are likely to be, and remain, sustainable.

Policy	Summary	Compliance
		<p>states that Britain has the best offshore wind resource in Europe and the marine zone of East Anglia is well placed to take advantage of this. Changing perceptions associated with the construction of East Anglia TWO are therefore likely to be seen as part of this natural progression for energy generation and as a positive change from fossil fuels to renewable energy</p> <ul style="list-style-type: none"> • Navigation hazards - The primary perceptions which associate hazardous water and wrecks with local heritage and stores relating to dangers of the high seas, to recreational diving and to wrecks as habitats could be enhanced through the provision of publicly available data on sea bed features identified during geophysical survey, and in the event of unexpected discoveries reported through the protocol for archaeological discoveries during construction activities • No significant adverse changes are expected (Table 16.26).
<p>Section 5.8.14 Historic Environment</p>	<p><i>There should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be. Once lost heritage assets cannot be replaced, and their loss has a cultural, environmental, economic and social impact. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. Loss affecting any designated heritage asset should require clear and convincing justification. Substantial harm to or loss of a grade II listed building park or garden should be exceptional. Substantial harm to or loss of designated assets of the highest significance, including Scheduled Monuments; registered battlefields; grade I and II* listed</i></p>	<p>The existing baseline environment is described in section 16.5 of ES Chapter 16 Marine Archaeology and Cultural Heritage. Please see response provided to EN-1 Section 5.8.11 in this compliance table for a list of heritage features of significance identified in the study area.</p> <p>With the application of appropriate mitigation set out in section 16.3.3, there will be no significant impacts to designated heritage sites from the proposed East Anglia TWO project. Mitigation includes the adoption of exclusion zones (summarised in section 16.6.1.1 and in ES Figures 16.3 – 16.4) around wrecks and the positioning of foundations and</p>

Policy	Summary	Compliance
	<i>buildings; grade I and II* registered parks and gardens; and World Heritage Sites, should be wholly exceptional.</i>	<p>offshore cables away from any potential archaeological features.</p> <p>Furthermore a 'Written Scheme of Archaeological Investigation' (WSI) has been secured as a requirement in the draft DML which will further minimise the risk of adverse impacts to any designated heritage assets. An Outline WSI (Offshore) (document reference 8.6) has been submitted with this DCO application.</p>
Section 5.8.15 Historic Environment	<i>Any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development, recognising that the greater the harm to the significance of the heritage asset the greater the justification will be needed for any loss. Where the application will lead to substantial harm to or total loss of significance of a designated heritage asset the IPC should refuse consent unless it can be demonstrated that the substantial harm to or loss of significance is necessary in order to deliver substantial public benefits that outweigh that loss or harm.</i>	No significant impacts on designated heritage assets are predicted.
Section 5.8.16 Historic Environment	<i>Not all elements of a World Heritage Site or Conservation Area will necessarily contribute to its significance. The policies set out in paragraphs 5.8.11 to 5.8.15 above apply to those elements that do contribute to the significance. When considering proposals, the IPC should take into account the relative significance of the element affected and its contribution to the significance of the World Heritage Site or Conservation Area as a whole.</i>	The Applicant has considered the contribution of heritage features and their significance. This is provided in section 16.5.5 and section 16.5.4 of ES Chapter 16 Marine Archaeology and Cultural Heritage . There are no World Heritage Sites or Conservation Areas within the proposed offshore development area. The same is true for the onshore development area, as per response to this Section within Compliance Table 6.19
Section 5.8.17	<i>Where loss of significance of any heritage asset is justified on the merits of the new development, the IPC should consider imposing a condition on the consent or requiring the applicant to enter into an obligation that will prevent</i>	No losses to heritage assets are predicted. The draft DML requires a 'WSI to be submitted for approval prior to construction which will ensure that this risk is minimised

Policy	Summary	Compliance
Historic Environment	<i>the loss occurring until it is reasonably certain that the relevant part of the development is to proceed.</i>	ALARP. An Outline WSI (Offshore) (document reference 8.6) has been submitted with this DCO application and a final WSI will be implemented as agreed post consent, as secured under the conditions of the draft DML.
Section 5.8.18 Historic Environment	<i>When considering applications for development affecting the setting of a designated heritage asset, the IPC should treat favourably applications that preserve those elements of the setting that make a positive contribution to, or better reveal the significance of, the asset. When considering applications that do not do this, the IPC should weigh any negative effects against the wider benefits of the application. The greater the negative impact on the significance of the designated heritage asset, the greater the benefits that will be needed to justify approval.</i>	As described in section 16.6.1.4 of ES Chapter 16 Marine Archaeology and Cultural Heritage , there is potential to further reveal the significance of wrecks and local heritage through the provision of publicly available data on sea bed features identified during geophysical survey, and in the event of unexpected discoveries reported through the protocol for archaeological discoveries during construction activities. Please refer to response to EN-1 Section 5.8.13 in this compliance table for further examples of beneficial impacts. With respect to potential impacts of the offshore wind farm site on onshore designated heritage features, please refer to responses provided for EN-1 sections 5.8.17 and 5.8.18 in Compliance Table 6.19
EN-3		
Section 2.6.144	<i>The IPC should be satisfied that offshore wind farms and associated infrastructure have been designed sensitively taking into account known heritage assets and their status, for example features designated as Protected Wrecks.</i>	Both existing and project-specific geophysical survey data acquired for the offshore development area have been utilised to aid the windfarm design (see section 16.5 of ES Chapter 16 Marine Archaeology and Cultural Heritage and ES Appendix 16.2 East Anglia TWO Offshore Windfarm Archaeological Assessment of Geophysical Data and 16.3

Policy	Summary	Compliance
		<p><i>East Anglia TWO Offshore Cable Corridor Archaeological Assessment of Geophysical Data).</i></p> <p>Potential impacts of the proposed project upon onshore heritage assets have been considered in <i>Chapter 24 Onshore Archaeology and Cultural Heritage.</i></p> <p>The appendices assisted in the site selection process (see <i>Site Selection</i>). Archaeological Exclusion Zones (AEZs) are to be implemented around the extents of known wreck sites and anomalies of archaeological interest (A1s) and the recorded point locations of previously recorded sites that have not been seen in the geophysical data (A3s) but at which archaeological material is likely to be present (possibly buried).</p> <p>No project related activities will take place within the established parameters of the AEZs. This is secured under the conditions of the draft DML.</p> <p>The avoidance of identified anomalies (A2s) and previously recorded sites that have not been seen in the geophysical data (A3s) and at which the presence of surviving material is considered unlikely (although it cannot be entirely discounted) will be achieved by micro-siting the project design, where possible and within the confines of engineering and other environmental constraints.</p> <p>With the application of appropriate mitigation, there will be no significant impacts to offshore and intertidal heritage assets.</p>

Policy	Summary	Compliance
East Inshore and East Offshore Marine Plans		
Objective 5	<i>To conserve heritage assets, nationally protected landscapes and ensure that decisions consider the seascape of the local area.</i>	Please refer to response below for details as to how heritage assets will continue to be conserved. With regards to nationally protected landscapes (in this case the Suffolk Coast and Heaths AONB), please see Table 6.23 Offshore Seascape, Landscape and Visual Impact Assessment .
Policy SOC2:	<p><i>Proposals that may affect heritage assets should demonstrate, in order of preference:</i></p> <ul style="list-style-type: none"> <i>That they will not compromise or harm elements which contribute to the significance of the heritage asset</i> <i>How, if there is compromise or harm to a heritage asset, this will be minimised</i> <i>How, where compromise or harm to a heritage asset cannot be minimised it will be mitigated against or</i> <i>The public benefits for proceeding with the proposal if it is not possible to minimise or mitigate compromise or harm to the heritage asset</i> 	<p>As described above, AEZs will be implemented as effective mitigation as secured in the DML for A1s and A3s. Please see above answer to EN-3 Section 2.6.144 for further information.</p> <p>After mitigation measures are in place, the residual impacts on heritage assets range from positive benefit to minor adverse as shown in Tables 16.31 and 16.32 of ES Chapter 16 Marine Archaeology and Cultural Heritage.</p> <p>The public benefits for the project are outlined in Need and the Case for the Development.</p>

6.12 Infrastructure and Other Users

304. Compliance with policies relating to infrastructure and other users are presented in **Table 6.12**. Full details of the assessment and potential impacts on the marine environment that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 17 Infrastructure and Other Users**. Where other chapters are relevant these have also been signposted.

305. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.12** below in relation to Infrastructure and Other Users.

Table 6.12 Infrastructure and Other Users Policy Compliance

Policy	Summary	Compliance
EN-3		
Section 2.6.182	<i>There are statutory requirements concerning automatic establishment of navigational safety zones relating to offshore petroleum developments.</i>	The location of the proposed East Anglia TWO offshore development area has been selected to minimise potential interactions with neighbouring infrastructure. ES Chapter 4 Site selection and Assessment of Alternatives further describes the process of development of the offshore development area. The proposed wind farm site is located away from active oil and gas wells which would require automatic establishment of navigational safety zones for offshore petroleum developments. Therefore, no such safety zones associated with offshore petroleum developments are required.
Section 2.6.183	<i>Where a proposed offshore wind farm potentially affects other offshore infrastructure or activity, a pragmatic approach should be employed by the IPC. Much of this infrastructure is important to other offshore industries as is its contribution to the UK economy. In such circumstances, the IPC should expect the applicant to minimise negative impacts and reduce risks to as low as reasonably practicable.</i>	Careful site selection has ensured that interactions with other users will generally be avoided. 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 proposed East Anglia TWO project on infrastructure and other users has been assessed to be non-significant or able to be fully mitigated through consultation with the relevant parties for construction, operation and decommissioning phases (section 17.7 of ES Chapter 17 Infrastructure and Other Users).
Section 2.6.184	<i>As such, the IPC should be satisfied that the site selection and site design of the proposed offshore wind farm has been made with a view to avoiding or</i>	Careful site selection has ensured that interactions with other users will generally be avoided. Where interaction is

Policy	Summary	Compliance
	<i>minimising disruption or economic loss or any adverse effect on safety to other offshore industries. The IPC should not consent applications which pose unacceptable risks to safety after mitigation measures have been considered.</i>	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. As summarised in Table 17.15 of ES Chapter 17 Infrastructure and Other Users , the proposed East Anglia TWO project will have no significant effects on other infrastructure and users.
Section 2.6.185	<i>Where a proposed development is likely to affect the future viability or safety of an existing or approved/licensed offshore infrastructure or activity, the IPC should give these adverse effects substantial weight in its decision-making.</i>	An assessment of the potential effect of the proposed development on existing or permitted infrastructure or activities has been undertaken, the potential impacts of which are assessed in section 17.7 of ES Chapter 17 Infrastructure and other users . The closest development to the offshore component of the proposed East Anglia TWO project is the fully commissioned Galloper Wind farm, 7km away. EDF's cooling water infrastructure for Sizewell B is within 2km of the landfall and cable route. Section 17.7 of ES Chapter 17 Infrastructure and other users concludes potential impacts are non significant.
Section 2.6.186	<i>Providing proposed schemes have been carefully designed by the applicants, and that the necessary consultation with relevant bodies has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the IPC to grant consent.</i>	Section 17.2 of ES Chapter 17 Infrastructure and other users details the consultation process. ES Appendix 17.1 Consultation Comments summarises the responses to consultation comments received. Section 17.3.3 of ES Chapter 17 Infrastructure and other users describes the embedded mitigation, which was taken at the earliest stage possible as part of the site selection process. Key site selection decisions are:

Policy	Summary	Compliance
		<ul style="list-style-type: none"> Offshore development area located away from active oil and gas wells; Offshore development area located outside any areas licenced for dredging and aggregate extraction; Offshore development area located outside any MoD danger areas; and Offshore development area located outside any MOD practice and exercise area. <p>Section 17.11 concludes no significant impacts upon other users and infrastructure.</p>
East Inshore and East Offshore Marine Plans		
Objective 1	<i>To promote the sustainable development of economically productive activities, taking account of spatial requirements of other activities of importance to the East marine plan areas.</i>	This is the high-level objective, reflective of the Marine Policy Statement and is underpinned by the specific policies AGG1, AGG2 and AGG3 in the rows below.
Policies AGG1, AGG2 and AGG3	<i>Policy AGG1: Proposals in areas where a licence for extraction of aggregates has been granted or formally applied for should not be authorised unless there are exceptional circumstances.</i>	There are no licenced aggregate dredging areas within the offshore development area as shown in ES Figure 17.3 .
	<i>Policy AGG2: Proposals within an area subject to an Exploration and Option Agreement with The Crown Estate¹⁹ should not be supported unless it is demonstrated that the other development or activity is compatible with aggregate extraction or there are exceptional circumstances.</i>	Given that there are no overlaps between the offshore development area and currently licensed aggregates activities, there is no pathway for impact and therefore, these are not considered further.

¹⁹ Details of tender rounds available at <http://www.thecrownestate.co.uk/marine/aggregates/workingwith-us/tender-rounds/>

Policy	Summary	Compliance
	<p><i>Policy AGG3:</i> <i>Within defined areas of high potential aggregate resource, proposals should demonstrate in order of preference:</i></p> <ul style="list-style-type: none"> <i>a) that they will not, prevent aggregate extraction</i> <i>b) how, if there are adverse impacts on aggregate extraction, they will minimise these</i> <i>c) how, if the adverse impacts cannot be minimised, they will be mitigated</i> <i>d) the case for proceeding with the application if it is not possible to minimise or mitigate the adverse impacts.</i> 	<p>The offshore cable corridor runs through an area identified as being of high potential aggregate resource. The high potential aggregate resource area covers 5,406km². Seabed take in aggregate dredging areas was minimised as far as possible during the scoping area of search (section 4.7.6.1 of ES Chapter 4 Site Selection and Assessment of Alternatives) The degree of overlap from East Anglia TWO alone is 0.9% of AGG3 area 5,406km² (or 50km²) (section 17.3.3 of ES Chapter 17 Infrastructure and other users). .</p>

6.13 Ground Conditions and Contamination

306. Compliance with policies relating to ground conditions and contamination are presented in **Table 6.13**. Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 18 Ground Conditions and Contamination**.
307. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.13** below in relation to ground conditions and contamination.

Table 6.13 Ground Conditions and Contamination Policy Compliance

Policy	Summary	Compliance
National Planning Policy Framework²⁰		
Section 15 Paragraph 170	<p><i>Planning policies and decisions should contribute to and enhance the natural and local environment by: ...</i></p> <p><i>f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.</i></p>	<p>The majority of the proposed onshore development area is located in agricultural land, where significant contamination is not anticipated. The proposed East Anglia TWO project is not utilising brownfield sites therefore the potential for remediation is limited to those locations where the onshore development area overlaps with contaminated locations.</p> <p>Potential sources of contamination were identified within the onshore development area and within potential migration pathways including, former buildings, clay, sand and gravel pits, roads, dismantled railways, waste management facilities and contemporary trades (see ES Appendix 18.3 Land Quality Preliminary Risk Assessment).</p> <p>Remediation will only be required where effect magnitude is high in relation to human health risk (section 18.4.3.2 of ES Chapter 18 Ground Conditions and Contamination).</p> <p>Adherence to the Construction and Environmental Management Plan (CEMP) will provide a protocol under which the environmental risk mitigation and other specific remedial measures will be defined and executed in the event of any unanticipated contamination being encountered. Should any unanticipated contamination be encountered during the work, work should be halted and a written statement on how</p>

²⁰ Policy on land contamination is set out in the NPPF. In NPS EN-1 the subject is covered only within Land Use policy on the ‘Applicant’s Assessment’, as opposed to ‘Sections’ which have been used to demonstrate policy compliance.

Policy	Summary	Compliance
		contamination will be dealt with should be agreed with the local authority.
Section 15 Paragraph 178	<p><i>Planning policies and decisions should ensure that:</i></p> <p><i>a) a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation);</i></p> <p><i>b) after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and</i></p> <p><i>c) adequate site investigation information, prepared by a competent person, is available to inform these assessments.</i></p>	<p>a) To ensure the site is suitable for its new use taking account of ground conditions and land instability, including from natural hazards or former activities, an in-depth site selection process was followed, as discussed in Site Selection and in ES Chapter 4 Site Selection and Assessment of Alternatives.</p> <p>The risk of encountering land contamination is the proposed onshore development area is low as described above. The site selection process has avoided, as far as possible, construction in areas of historic development including all historic pits and areas of infill land identified.</p> <p>b) After mitigation measures, to be outlined and agreed, in the CoCP and CEMP are applied, the land contamination impacts are considered minor adverse as detailed in section 18.10 of ES Chapter 18 Ground Conditions and Contamination. If remediation is required, industry best practice will be followed in line with The Environmental Protection Act 1990. An Outline CoCP (document reference 8.1) has been submitted with this DCO application.</p> <p>c) Site investigation information is presented in both sections 18.4.2 and 18.6 of ES Chapter 18 Ground Conditions and Contamination. Site investigation information was collated using data from public and competent authorities. A Phase 1 walk-over survey was also completed which has fed into the production of ES Appendix 18.3 Land Quality Preliminary Risk Assessment.</p>

Policy	Summary	Compliance
Section 15 Paragraph 179	<i>Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner.</i>	<p>To prevent unacceptable risks from pollution and land instability, an in-depth site selection process was followed to ensure the selected location was appropriate as discussed in Chapter 4 Site Selection and Assessment of Alternatives.</p> <p>The potential effects of the project are addressed in section 18.6 and the cumulative effects in section 18.7 of ES Chapter 18 Ground Conditions and Contamination. The potential impacts from development have been reduced to minor adverse levels through the implementation of mitigation measures.</p>

6.14 Air Quality

308. Compliance with policies relating to air quality are presented in **Table 6.14**. Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 19 Air Quality**.
309. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.14** below in relation to Air Quality.

Table 6.14 Air Quality Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.2.9	<i>The IPC should generally give air quality considerations substantial weight where a project would lead to a deterioration in air quality in an area or leads to a new area where air quality breaches any national air quality limits. However, air quality considerations will also be important where substantial changes in air quality levels are expected, even if this does not lead to any breaches of national air quality limits.</i>	Any significant air emissions (section 19.6) their mitigation (section 19.3.3) and any residual effects (Table 19.34), including any significant emissions from road traffic generated by the proposed East Anglia TWO project are addressed in ES Chapter 19 Air Quality .

Policy	Summary	Compliance
		<p>The predicted absolute emission levels of the proposed project, after mitigation methods have been applied show all residual impacts are not significant as detailed in Table 19.34 of ES Chapter 19 Air Quality.</p> <p>The existing air quality levels, the relative change in air quality from existing levels, and potential eutrophication impacts are addressed in section 19.6 of ES Chapter 19 Air Quality.</p>
Section 5.2.10	<p><i>In all cases the IPC must take account of any relevant statutory air quality limits. Where a project is likely to lead to a breach of such limits the developers should work with the relevant authorities to secure appropriate mitigation measures to allow the proposal to proceed. In the event that a project will lead to non-compliance with a statutory limit the IPC should refuse consent.</i></p>	<p>The predicted absolute emission levels of the proposed project, after mitigation methods have been applied show all residual impacts are not significant as detailed in Table 19.34 of ES Chapter 19 Air Quality. The proposed East Anglia TWO project will not breach any statutory air quality limits.</p>
National Planning Policy Framework		
Section 15 Paragraph 170	<p><i>Planning policies and decisions should contribute to and enhance the natural and local environment by:...</i></p> <p><i>e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans.</i></p>	<p>No significant impacts on air quality will arise from the proposed East Anglia TWO project (section 19.6 of ES Chapter 19 Air Quality). The assessment considered construction phase dust and fine particulate matter emissions and construction phase road traffic exhaust emissions. The project will therefore not contribute to unacceptable levels of air quality.</p>
Section 15 Paragraph 181	<p><i>Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local</i></p>	<p>There are Clean Air Zones in the proposed East Anglia TWO development area. Consideration was given to Stratford St Andrew which is a designated Air Quality Management Area (AQMA) (section 19.5 of ES Chapter 19 Air Quality). The</p>

Policy	Summary	Compliance
	<p>areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan</p>	<p>results of the construction phase road traffic emissions assessment indicate that annual mean concentrations of NO₂, PM₁₀ and PM_{2.5} were predicted to be ‘well below’ (i.e. less than 75% of) the respective air quality Objectives in the year of peak construction at all receptors outside of the Stratford St Andrew AQMA, both ‘without’ and ‘with’ the proposed East Anglia TWO project in place. NO₂ concentrations were predicted to approach the annual mean Objective at receptor R1 which is located on Long Row, Stratford St Andrew which is where the AQMA is designated. The proposed East Anglia TWO project will therefore not undermine the objective of the AQMA Stratford St Andrew.</p> <p>No significant adverse impacts are predicted for air quality (section 19.6 of ES Chapter 19 Air Quality). This is the residual assessment which factors in effective mitigation measures captured in the Access To Works Plan (document reference 2.4) and Outline Construction Traffic Management Plan (document reference 8.9) which are submitted with the DCO application. These include measures such as re-directing HGV traffic and the adoption of car sharing for construction employees.</p>
<p>Suffolk Coastal Local Plan</p>		
<p>SCLP9.1: Low Carbon and Renewable Energy</p>	<p>Council will support low carbon and renewable energy developments where they are within an area identified as suitable for renewable or low carbon energy or satisfy the following criteria: ...</p>	<p>The selection process for the proposed East Anglia TWO project development site is described in Site Selection. This is further supported by Need and the Case for the Development. The site has been situated in an area where the shortest route length and as straight a route as possible can be achieved in order to minimise air pollution.</p>

Policy	Summary	Compliance
	<p><i>d) Are complementary of the existing environment without causing any significant adverse impacts, particularly relating to the residential amenity...and air quality, unless those impacts can be appropriately mitigated.</i></p>	<p>Air quality impacts can be appropriately mitigated to a minor adverse level as shown in section 19.10 of ES Chapter 19 Air Quality. Mitigation measures include the re-routing of HGV traffic, car sharing for construction employees and the creation of the following haul roads:</p> <ul style="list-style-type: none"> • Onshore cable route haul road between landfall and Snape Road; • Onshore cable route and substation access haul road; and • A temporary access road. <p>Additional mitigation to safeguard residential amenity will involve effective communications, dust management, measures specific to earthworks, construction and trackout and to non-road mobile machinery (section 19.6.1.1.5).</p>
<p>SCLP11.2: Residential Amenity</p>	<p><i>When considering the impact of development on residential amenity, the Council will have regard to the following:</i></p> <p><i>f) Light spillage, air quality and other forms of pollution; and...</i></p> <p><i>Development will be acceptable where it would not cause an unacceptable loss of amenity to adjoining or future occupiers of development."</i></p>	<p>Please refer to response above to Suffolk Coastal Local Plan SCLP 9.1 regarding the impact of the proposed East Anglia TWO project on residential amenity.</p>
<p>SCDC Core Strategy</p>		
<p>DM23 – Residential Amenity</p>	<p><i>When considering the impact of new development on residential amenity, the Council will have regard to the following:</i></p> <p>...</p>	<p>Please refer to response above to Suffolk Coastal Local Plan SCLP 9.1 in this compliance table.</p>

Policy	Summary	Compliance
	<p><i>(f) light spillage, air quality and other forms of pollution; ...</i></p> <p><i>Development will be acceptable where it would not cause an unacceptable loss of amenity to adjoining or future occupiers of the development.”</i></p>	

6.15 Water Resources and Flood Risk

310. Compliance with policies relating to water resources and flood risk are presented in **Table 6.15**. Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 20 Water Resources and Flood Risk**.

311. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.15** below in relation to Water Resources and Flood Risk.

Table 6.15 Water Resources and Flood Risk Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.7.9 Flood Risk	<p><i>In determining an application for development consent, the IPC should be satisfied that where relevant:</i></p> <ul style="list-style-type: none"> <i>the application is supported by an appropriate FRA;</i> <i>the Sequential Test has been applied as part of site selection;</i> <i>a sequential approach has been applied at the site level to minimise risk by directing the most vulnerable uses to areas of lowest flood risk;</i> <i>the proposal is in line with any relevant national and local flood risk management strategy;</i> 	<p>A supporting FRA can be found in ES Appendix 20.3 Flood Risk Assessment. Section 20.5.3 of ES Appendix 20.3 demonstrates the application of the Sequential Test for the site selection of the proposed East Anglia TWO project.</p> <p>NPPF PPG (DECC, 2014) has been used as guidance for flood risk management. Waveney District Council and Suffolk Coastal District Councils Strategic Flood Risk Assessment (SFRA) has also been considered (section 20.3.5 of ES Appendix 20.3). None of the allocated development sites requiring assessment</p>

Policy	Summary	Compliance
	<ul style="list-style-type: none"> • <i>priority has been given to the use of sustainable drainage systems (SuDs) (as required in the next paragraph on National Standards); and</i> • <i>in flood risk areas the project is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed over the lifetime of the development.</i> 	<p>within this strategy are within the proposed onshore development area, therefore the Level 2 SFRA was not considered further.</p> <p>This assessment demonstrates that the 'essential infrastructure' development located within Flood Zones 1 and 2 is deemed acceptable, and that development located within Flood Zone 3 is required to pass the Exception test.</p> <p>The proposed East Anglia TWO project has been sequentially located wherever possible. Above ground compounds/ / structures are located within Flood Zone 1, 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.</p> <p>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 cables will be wholly located underground with no interaction with the above ground Flood Zone.</p> <p>The temporary haul road is for access during the construction phase, as well as the CCS. Following construction, the temporary construction elements will be removed, and land returned to its present state.</p> <p>On the basis of the above, it is considered that the Exception Test is not applicable to the nature of the proposed East Anglia TWO project.</p>

Policy	Summary	Compliance
		<p>Pre-construction work will be developed according to the principles of the (SuDS). Generally, the aim will be to discharge surface water runoff as high up the following hierarchy of drainage options as reasonably practicable:</p> <ol style="list-style-type: none"> 1) Into the ground (infiltration) 2) To a surface water body 3) To a surface water sewer, highway drain or another drainage system; or 4) To a combined sewer <p>A Surface Water and Drainage Plan will be approved by the relevant planning authority and implemented prior to construction as secured under the requirements of the draft DCO.</p> <p>For information regarding the site of cable landfall and onshore infrastructure in respect of coastal flood risk and erosion please refer to the response provided for EN-1 Section 5.5.11 in Table 6.2 Marine Geology, Oceanography and Physical Processes Policy Compliance.</p>
<p>Section 5.7.10 Flood Risk</p>	<p><i>For construction work which has drainage implications, approval for the project's drainage system will form part of the development consent issued by the IPC. The IPC will therefore need to be satisfied that the proposed drainage system complies with any National Standards published by Ministers under Paragraph 5(1) of Schedule 3 to the Flood and Water Management Act 2010. In addition, the development consent order, or any</i></p>	<p>Surface water drainage requirements will be dictated by the final Surface Water and Drainage Plan as secured under the requirements of the draft DCO and will be designed to meet the requirements of the NPPF, NPS EN-1 and NPS EN-5, with runoff limited where feasible, through the use of infiltration techniques which</p>

Policy	Summary	Compliance
	<i>associated planning obligations, will need to make provision for the adoption and maintenance of any SuDS, including any necessary access rights to property. The IPC should be satisfied that the most appropriate body is being given the responsibility for maintaining any SuDS, taking into account the nature and security of the infrastructure on the proposed site. The responsible body could include, for example, the applicant, the landowner, the relevant local authority, or another body, such as an Internal Drainage Board.</i>	can be accommodated within the proposed onshore development area.
Section 5.7.11 Flood Risk	<i>If the EA continues to have concerns and objects to the grant of development consent on the grounds of flood risk, the IPC can grant consent, but would need to be satisfied before deciding whether or not to do so that all reasonable steps have been taken by the applicant and the EA to try to resolve the concerns</i>	The Applicant has engaged with the EA and other key stakeholders on flood risk. Full consultation comments and responses can be found in ES Appendix 20.1 Consultation Comments .
Section 5.7.12 Flood Risk	<i>The IPC should not consent development in Flood Zone 2 in England or Zone B in Wales unless it is satisfied that the sequential test requirements have been met. It should not consent development in Flood Zone 3 or Zone C unless it is satisfied that the Sequential and Exception Test requirements have been met. The technology specific NPSs set out some exceptions to the application of the sequential test. However, when seeking development consent on a site allocated in a development plan through the application of the Sequential Test, informed by a strategic flood risk assessment, applicants need not apply the Sequential Test, but should apply the sequential approach to locating development within the site.</i>	Please refer to response provided in response to EN-1 Section 5.7.9 of this compliance table . Full details of the Sequential Test can be found in section 20.5.3 of ES Appendix 20.3 which concludes that the Exception Test is not applicable to the nature of the proposed East Anglia TWO project.
Section 5.15.4 Water Quality and Resources	<i>Activities that discharge to the water environment are subject to pollution control. The considerations set out in Section 4.10 on the interface between planning and pollution control therefore apply. These considerations will also apply in an analogous way to the abstraction licensing regime regulating</i>	There will be no water abstraction associated with the proposed East Anglia TWO project.

Policy	Summary	Compliance
	<i>activities that take water from the water environment, and to the control regimes relating to works to, and structures in, on, or under a controlled water</i>	
Section 5.15.5 Water Quality and Resources	<i>The IPC will generally need to give impacts on the water environment more weight where a project would have an adverse effect on the achievement of the environmental objectives established under the Water Framework Directive.</i>	A WFD Compliance Assessment is located in ES Appendix 20.4 WFD Compliance Assessment . Section 20.7.2 summarises the impacts on the relevant water bodies. For all water bodies considered, the proposed East Anglia TWO project will not prevent the WFD objectives being achieved.
Section 5.15.6 Water Quality and Resources	<i>The IPC should satisfy itself that a proposal has regard to the River Basin Management Plans and meets the requirements of the Water Framework Directive (including Article 4.7) and its daughter directives, including those on priority substances and groundwater. The specific objectives for particular river basins are set out in River Basin Management Plans. The IPC should also consider the interactions of the proposed project with other plans such as Water Resources Management Plans and Shoreline/Estuary Management Plans.</i>	As above, Section 20.7.2 of ES Appendix 20.4 WFD Compliance Assessment summarises compliance against the WFD. As described in Table A20.16 , the proposed East Anglia TWO project is compliant with WFD. Consideration has also been given to the Anglian River Basin Management Plan and other plans as described below under heading 'Anglian River Basin District: River Basin Management Plan'. An assessment of how the project meets the environmental objectives of the Anglian River Basin District: River Basin Management Plan is provided in Compliance Table 6.15 of this document. The project is in keeping with the Essex and Suffolk Water Resources Management Plan as there will be no water abstraction associated with the proposed East Anglia TWO project. The project also aims to mitigate impacts of climate change which may affect water supply.

Policy	Summary	Compliance
		An assessment of how the project meets the environmental objectives of the shoreline management plan (Lowestoft Ness to Felixstowe Landguard Point) is provided in Compliance Table 6.1 .
Section 5.15.7 Water Quality and Resources	<i>The IPC should consider whether appropriate requirements should be attached to any development consent and/or planning obligations entered into to mitigate adverse effects on the water environment.</i>	Mitigation measures were identified (section 20.3.3 of ES Chapter 20 Water Resources and Flood Risk) including sediment management, construction drainage, and implementation of best practice measures to be set out in the code of construction practice, as secured under the requirements of the draft DCO. With the implementation of these measures, impacts will not be significant, including no increase in flood risk on the village of Friston. Decommissioning impacts are expected to be no greater than those construction impacts identified.
National Planning Policy Framework		
Section 15 Paragraph 170	<p><i>Planning policies and decisions should contribute to and enhance the natural and local environment by:</i></p> <p><i>e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans.</i></p>	The mitigation measures set out in section 20.3.3 of ES Chapter 20 Water Resources and Flood Risk and the Outline CoCP (document reference 8.1) will ensure that the risk of water pollution is minimised. Residual impacts range from no impact to minor adverse (section 20.10). A WFD Compliance Assessment is provided in ES Appendix 20.4 WFD Compliance Assessment which concludes that the proposed East Anglia TWO project will not undermine any of the WFD objectives for the assessed waterbodies. Further control measures are outlined in sections 20.6.3,

Policy	Summary	Compliance
		20.6.4 and 20.6.5 of ES Appendix 20.4 WFD Compliance Assessment .
Anglian River Basin District: River Basin Management Plan		
Section 2.2 Environmental Objectives	<p><i>The environmental objectives of the WFD are:</i></p> <ul style="list-style-type: none"> <i>to prevent deterioration of the status of surface waters and groundwater</i> <i>to achieve objectives and standards for protected areas</i> <i>to aim to achieve good status for all water bodies or, for heavily modified water bodies and artificial water bodies, good ecological potential and good surface water chemical status</i> <i>to reverse any significant and sustained upward trends in pollutant concentrations in groundwater</i> <i>the cessation of discharges, emissions and losses of priority hazardous substances into surface waters</i> <i>progressively reduce the pollution of groundwater and prevent or limit the entry of pollutants</i> 	Impacts to water quality are outlined in section 20.6 of ES Chapter 20 Water Resources and Flood Risk and section 18.6 of ES Chapter 18 Ground Conditions and Contamination . No significant impacts are predicted and therefore this project does not affect the objectives of the plan.
SCC Flood Risk Management Strategy		
Objective 3	<p><i>Promote the local SuDs guidance which will emphasise that there should be no increase in surface water flow from future development.</i></p> <p><i>Ensure that planning decisions are based on up-to-date information about all flood risks and that there is a consistent approach to surface water management in new development as a result of Planning Authorities consulting with the Lead Local Flood Authority (LLFA) on surface water drainage matters.</i></p>	A surface water and drainage plan will be developed and implemented in the pre-construction period. Impacts on surface water and flood risk are described in section 20.5.5 of ES Chapter 20 Water Resources and Flood Risk . Section 20.7.1 outlines the Applicant's commitment to develop the drainage strategy according to the principles of the SuDS

Policy	Summary	Compliance
		<p>discharge hierarchy. Discharge into the ground via infiltration will be prioritised.</p> <p>The FRA (ES Appendix 20.3 Flood Risk Assessment) assesses the likelihood of the project being affected by current or future flooding from any source and whether it will increase flood risk elsewhere. This was produced in consultation with the Environment Agency and other key stakeholders as described in section 20.2 of ES Chapter 20 Water Resources and Flood Risk and ES Appendix 20.1 Consultation Responses.</p>
Objective 4:	<p><i>Link all flood and coastal risk management with the River Basin Management Plan and thus deliver improvements in water body status (water quality, quantity and aquatic ecology) wherever possible.</i></p>	<p>Due consideration has been given to the Anglian River Basin Management Plan which incorporates the WFD objectives for the water bodies affected. Impacts under the WFD are assessed in ES Appendix 20.4 WFD Compliance Assessment. The proposed East Anglia TWO is assessed as remaining compliant with the WFD objectives.</p>
SCC Nature Strategy		
Recommendation 20	<p><i>Where possible, SuDS (both urban and rural) should be designed to maximise wildlife and landscape potential.</i></p>	<p>Drainage for the substation and national grid works have been designed in accordance to best practice and are of high standard. This includes maximising amenity and biodiversity benefits, whilst delivering the key objectives of managing flood risk and water quality (see section 3.5.12 of the OLEMS (document reference 8.7)).</p>

Policy	Summary	Compliance
		The OLEMS covers proposals for an additional SuDS basin (or similar) to assist in the management of surface water inflows to the substation area, which will in turn to reduce flood risk in the village of Friston. The outline design of the onshore substation drainage has inherent benefit to reducing downstream flood risk in the village of Friston. The SuDS basins are designed to contain a 1 in 200-year storm event. The English standard is to design for a 1 in 100-year (+20% for climate change) storm event, so the SuDS basins are larger than required for any potential impact associated with storm event runoff.
SCDC Core Strategy and Development Management Policy		
DM28 -Flood Risk	<i>Proposals for new development, or the intensification of existing development, will not be permitted in areas at high risk from flooding, i.e. Flood Zones 2 and 3, unless the applicant has satisfied the safety requirements in the Technical Guidance to the National Planning Policy Framework (and any successor). These include the 'sequential test'; where needed the 'exception test' and also a site specific flood risk assessment that addresses the characteristics of flooding and has tested an appropriate range of flood event scenarios.</i>	Flood risk assessment provided in in ES Appendix 20.3 Flood Risk Assessment . This assessment applies the Sequential but not the Exception Test for reasons outlined in response to EN-1 Section 5.7.9 of this compliance table .
SCDC (2018) First draft Local Plan		
SCLP9.5 –Flood Risk	<i>The Strategic Flood Risk Assessment should be the starting point in assessing whether a proposal is at risk from flooding. Proposals for new development, or the intensification of existing development, will not be permitted in areas at high risk from flooding, i.e. Flood Zones 2 and 3, unless</i>	Please refer to response provided above to the SCDC Core Strategy. As concluded in section 20.9 of ES Appendix 20.3 Flood Risk Assessment , the landfall location and onshore substation are located within Flood Zone 1 and

Policy	Summary	Compliance
	<p><i>the applicant has satisfied the safety requirements in the Flood Risk National Planning Policy Guidance (and any successor).</i></p> <p><i>Supports development or intensification of existing development that can:</i></p> <p><i>Demonstrate the three main principles of flood risk: safe, resilient and should not increase flood risk elsewhere; and</i></p> <p><i>Include natural flood management measures that complement existing flood defences where already in place.</i></p> <p><i>Proposals for new development will not be supported in areas at high risk of flooding unless they satisfy the safety requirements in the Flood Risk National Planning Policy Guidance. These include:</i></p> <p><i>The ‘sequential test’;</i></p> <p><i>The ‘exception test’ where needed; and</i></p> <p><i>A site specific flood risk assessment that addresses the characteristics of flooding and has tested an appropriate range of flood event scenarios (taking climate change into consideration).</i></p>	<p>therefore at low risk of flooding from fluvial and tidal sources. The proposed infrastructure is therefore safe.</p> <p>In terms of resilience and not increasing flood risk elsewhere, where small watercourses, shallower than 1.2m, are to be crossed during duct installation, temporary damming and diverting of the watercourse is proposed. To ensure flood risk is not increased during construction the capacity of the water pipe, or pumping system shall need to be suitable to maintain the original flow volumes and velocity of each watercourse. Channels would be reinstated to pre-construction depths, as far as possible, to ensure flood risk is not increased elsewhere following development.</p>
<p>SCLP9.6 – Sustainable Urban Drainage Systems</p>	<p><i>Developments should use sustainable drainage systems to drain surface water, where possible. These should be integrated into the landscaping scheme, not detract from the design quality of the scheme and deliver water quality and aquatic biodiversity improvements.</i></p> <p><i>Runoff should be restricted to greenfield runoff rates where possible.</i></p> <p><i>No surface water connections should be made to the foul system and connections to the combined or surface water system should only be made in exceptional circumstances where there are no feasible alternatives.</i></p>	<p>As detailed in section 20.3.3 of ES Chapter 20 Water Resources and Flood Risk, the project will include embedded mitigation measures to reduce the potential for impact. This includes limiting discharge from the onshore substation to the greenfield runoff rate, creation of a new attenuation pond at the onshore substation and creation of increased storage volume at the National Grid substation.</p> <p>NPPF PPG (DECC, 2014) has been used as guidance for flood risk management. Pre-construction work will be developed according to the principles of the SuDS.</p>

Policy	Summary	Compliance
		<p>Generally, the aim will be to discharge surface water runoff as high up the following hierarchy of drainage options as reasonably practicable:</p> <ol style="list-style-type: none"> 1) Into the ground (infiltration) 2) To a surface water body 3) To a surface water sewer, highway drain or another drainage system; or 4) To a combined sewer <p>A Surface Water and Drainage Plan will be developed, agreed with the regulator and implemented prior to construction as secured under the requirements of the draft DCO. This will include sediment management measures to intercept sediment runoff at source. Suitable filters will be used to remove sediment from any water discharged into the surface drainage network to prevent impacts on water quality.</p>
Waveney Local Plan		
<p>WLP8.24 Flood Risk</p>	<p><i>Development proposals should consider flooding from all sources and take in to account climate change.</i></p> <p><i>Developments should use SuDS to drain surface water. SuDS should be integrated into the landscaping scheme and the green infrastructure provision of the development and not detract from the design quality of the scheme. They should deliver water quality and aquatic biodiversity improvements wherever possible.</i></p>	<p>ES Appendix 20.3 Flood Risk Assessment assesses the likelihood of the project being affected by current or future flooding (including that attributable to climate change) and whether it will increase flood risk elsewhere. There will be no increase in flood risk to any receptors, principally the village of Friston.</p> <p>The existing environment with respect to biodiversity / geodiversity is discussed in section 20.5 of ES</p>

Policy	Summary	Compliance
		<p>Chapter 20 Water Resources and Flood Risk. Impacts are set out in sections 20.5.5 and 20.7.</p> <p>As detailed in section 20.3.3 of ES Chapter 20 Water Resources and Flood Risk, the project will include embedded mitigation measures to reduce the potential for impact. This includes limiting discharge from the onshore substation to the greenfield runoff rate, creation of a new attenuation pond at the onshore substation and creation of increased storage volume at the National Grid substation.</p> <p>NPPF PPG (DECC, 2014) has been used as guidance for flood risk management. Pre-construction work will be developed according to the principles of the SuDS. Generally, the aim will be to discharge surface water runoff as high up the hierarchy of drainage options as reasonably practicable.</p>

6.16 Land Use

312. Compliance with policies relating to land use are presented in **Table 6.16**. Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 21 Land Use**. Where other chapters are relevant these have also been signposted.
313. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.16** below in relation to Land Use.

Table 6.16 Land Use Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.10.14 Land Use	<i>The IPC should not grant consent for development on existing open space, sports and recreational buildings and land unless an assessment has been undertaken either by the local authority or independently, which has shown the open space or the buildings and land to be surplus to requirements or the IPC determines that the benefits of the project (including need), outweigh the potential loss of such facilities, taking into account any positive proposals made by the applicant to provide new, improved or compensatory land or facilities. The loss of playing fields should only be allowed where applicants can demonstrate that they will be replaced with facilities of equivalent or better quantity or quality in a suitable location.</i>	<p>A key guiding design principle taken forward into the site selection process was that urban areas (that would include recreational land and facilities) were to be avoided. This has avoided open space, sports and recreational buildings (ES Figure 21.2). Most of the land use is arable farmland with the remainder comprising some areas of woodland and improved grassland.</p> <p>Section 4.9 of ES Chapter 4 Site Selection and Assessment of Alternatives details the parameters of the design and siting of Substations. This includes:</p> <ul style="list-style-type: none"> • Amenity, Cultural or Scientific Value of Sites • Local Context, Land Use and Site Planning • Design • Line Entry
Section 5.10.15 Land Use	<i>The IPC should ensure that applicants do not site their scheme on the best and most versatile agricultural land without justification. It should give little weight to the loss of poorer quality agricultural land (in grades 3b, 4 and 5), except in areas (such as uplands) where particular agricultural practices may themselves contribute to the quality and character of the environment or the local economy.</i>	<p>The Agricultural Land Classifications (ALC) are discussed in section 21.5.3, and land classified in the ALC grades is shown in ES Figure 21.3. They are summarised as follows:</p> <ul style="list-style-type: none"> • Grade 1 – Excellent Quality Agricultural Land • Grade 2 – Very Good Quality Agricultural Land • Grade 3 – Good to Moderate Quality Agricultural Land • Grade 4 – Poor Quality Agricultural Land

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • Grade 5 – Very Poor Quality Agricultural Land - • Urban - Built-up or 'hard' uses with relatively little potential for a return to agriculture including: housing, industry, commerce, education, transport, religious buildings, and cemeteries. <p>The proposed onshore development area covers Grade 2 (very good), Grade 3 (good to moderate) and Grade 4 (poor) agricultural land. The onshore substation location and National Grid substation location land covers agricultural land of Grade 2 and Grade 3 quality. In total, 75.64% of the proposed onshore development area is moderate to poor quality agricultural land. There is no agricultural land of the highest quality within the proposed onshore development area.</p> <p>Site selection for the onshore cable corridor and substation avoids key sensitive land uses e.g. development land, urban land, residential land and major utilities (see Site Selection).</p>
Section 5.10.16 Land Use	<p><i>In considering the impact on maintaining coastal recreation sites and features, the IPC should expect applicants to have taken advantage of opportunities to maintain and enhance access to the coast. In doing so the IPC should consider the implications for development of the creation of a continuous signed and managed route around the coast, as provided for in the Marine and Coastal Access Act 2009.</i></p>	<p>The commitment to using HDD at the landfall avoids impacts to the coastal path and beach at Thorpeness. Impacts to Thorpeness and Sizewell beach would therefore be limited to disturbance impact during drilling.</p> <p>Recreational land uses include the Suffolk Coast Path, which runs along the coastline between Felixstowe and Lowestoft and is present within the proposed onshore development area at the coast between Sizewell and Thorpeness (ES Figure 21.2). Inland there are</p>

Policy	Summary	Compliance
		<p>numerous public rights of way, bridleways and other footpaths.</p> <p>Disturbance during construction will be mitigated through appropriate management measures that will be agreed with Suffolk County Council prior to construction. This will maintain access. For further details please see the Outline Public Rights of Way Strategy document (document reference 8,4). Please also see response to NPPF, section 8, 98 of Table 6.24 Tourism, Recreation and Socio-economics Policy Compliance.</p>
5.10.19 Land Use	<p><i>Although in the case of much energy infrastructure there may be little that can be done to mitigate the direct effects of an energy project on the existing use of the proposed site (assuming that some at least of that use can still be retained post project construction) applicants should nevertheless seek to minimise these effects and the effects on existing or planned uses near the site by the application of good design principles, including the layout of the project.</i></p>	<p>The impact on existing or planned future uses of the land as been minimised as far as possible. Initial site selection (ES Chapter 4 Site Selection and Assessment of Alternatives) avoided key sensitive land uses e.g. development land, urban land, residential land and major utilities. Please also see Planning History and Table 6.1 Good Design, Alternatives and Adaption Policy Compliance.</p> <p>Some areas of land would need to be temporarily excluded from landowners, occupiers or the public during construction of the cable route. Meetings with affected landowners and/or land agents took place, who put forward various cable route change proposals. The proposed East Anglia TWO project incorporated a number of those suggestions into the onshore development area boundary (section 4.5.1).</p>

Policy	Summary	Compliance
		<p>The substation locations would be permanently affected with changed land use throughout the project lifetime. There is however an enhanced public access strategy in and around the substation, which seeks to build and increase public access opportunities. It is acknowledged that for some of these, there will be views of the electrical infrastructure. Further detail is provided in section 3.2 of outline PRow Strategy (document reference 8.4).</p>
5.10.20 Land Use	<p><i>Where green infrastructure is affected, the IPC should consider imposing requirements to ensure the connectivity of the green infrastructure network is maintained in the vicinity of the development and that any necessary works are undertaken, where possible, to mitigate any adverse impact and, where appropriate, to improve that network and other areas of open space including appropriate access to new coastal access routes.</i></p>	<p>Small waterbodies such as rivers and ponds have been classed as ‘non agricultural land’ and are presented in ES Figure 21.2. Embedded mitigation measures mean that jointing bays would be located away from watercourses and adjacent to field boundaries or roads, where practicable and appropriate off-road vehicles would be used to access each of these during maintenance where applicable (section 21.6.2.1.1 of ES Chapter 21 Land Use).</p> <p>Impacts on the Hundred River Valley Special Protection Area and mitigation is described in response to Suffolk Coastal District Council Core Strategy and Development Management Policy, Strategic Policy SP15 in Table 6.1 Good Design, Alternatives and Adaptation Policy Compliance.</p> <p>The proposed onshore development area includes 32 PRowS and some of these will require temporary alternative routing and management measures during construction. The commitment to using HDD on the</p>

Policy	Summary	Compliance
		<p>coast would remove impacts to the coastal path and beach at Thorpeness. (section 30.6.1.4 of ES Chapter 30 Tourism Recreation and Socio Economics).</p> <p>There is one PRoW in the location of the onshore substation and National Grid infrastructure that will require permanent diversion. This could result in a significant impact but will be mitigated through proper 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. See section 3.2 of outline PRoW Strategy (document reference 8.4) regarding PRoW E-354/006/0</p>

Policy	Summary	Compliance
National Planning Policy Framework		
Section 15 Paragraph 170	<p><i>Planning policies and decisions should contribute to and enhance the natural and local environment by:</i></p> <p><i>a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan) ...</i></p>	<p>As discussed in response to EN-1 Section 5.10.15 in this compliance table, the proposed onshore development area covers Grade 2 (very good), Grade 3 (good to moderate) and Grade 4 (poor) agricultural land. The onshore substation location and National Grid substation location land covers agricultural land of Grade 2 and Grade 3 quality. In total, 75.64% of the proposed onshore development area is moderate to poor quality agricultural land. There is no agricultural land of the highest quality within the proposed onshore development area.</p> <p>As secured under the requirements of the draft DCO, a Soil Management Plan (SMP), including construction method statements for soil handling, will be produced by a competent soil science contractor and agreed with the regulator, in advance of the works. This would be completed pre-construction once an earthworks contractor has been appointed and detailed earthworks phasing information is available. The contractor would be required to comply with the SMP.</p>
Suffolk Coastal Local Plan		
AP28 (saved policy)	<p><i>Areas to be Protected from Development</i></p> <p><i>Development will not normally be permitted where it would materially detract from the character and appearance of:</i></p>	<p>The onshore development area is mapped in ES Figures 21.1 -21.7.</p> <p>Figures 21.2 -21.6 show the potential location of both the substations and the cable corridor in relation to land cover, agricultural land classification, environmental</p>

Policy	Summary	Compliance
	<p><i>(i) those areas identified on the Proposals Map to be protected from development, or further development; and</i></p> <p><i>(ii) other sites, gaps, gardens and spaces which make an important contribution in their undeveloped form to a Town or Village, its setting, character, or the surrounding landscape or townscape.</i></p> <p><i>Outside of the physical boundary limits of Towns and Villages, the area is defined as Countryside.</i></p>	<p>stewardship scheme arrangements, common access land and utilities. These maps confirm the avoidance of protected sites, gaps, gardens and spaces which make an important contribution in their undeveloped form to a Town or Village, its setting, character, or the surrounding landscape or townscape.</p>
<p>Sections 12.270 – 12.277</p> <p>Strategy for Leiston</p>	<p><i>Protect and enhance the setting of the town</i></p>	<p>The cable route avoids Leiston, passing to the south of the town as shown in ES Figures 21.1- 21.7.</p> <p>Nature conservation, heritage and landscape designations are discussed in detail in ES Chapter 22 Onshore Ecology, Chapter 24 Archaeology and Cultural Heritage and Chapter 28 Seascape, Landscape and Visual Amenity respectively.</p>
<p>SCLP12.26</p> <p>Strategy for Aldeburgh</p>	<p><i>New development is anticipated to occur through the development of previously developed land including infilling. The strategy aims to maintain the town's close-knit historic character and retain the sensitive environment, particularly the setting and along the edges of the town</i></p>	<p>ES Figures 21.2 and 21.7 show the land cover and the cable route. It shows the avoidance of Urban/residential areas and other buildings & structures in general. The landfall location is also shown, to the north of Thorpness. As such the cable route completely avoids Aldeburgh (south of Thorpness), ensuring that there is no impact on the town's historic character, setting of the edges of the town.</p>

Policy	Summary	Compliance
Suffolk Coastal Local District Plan		
SP1 and Objective 1 – Sustainable Development	<p><i>Aims to deliver sustainable communities through better integrated and sustainable patterns of land use, movement, activity and development. This SP gives priority to re-using previously developed land as opposed to greenfield sites</i></p>	<p>Notably, there is no permanent change to land use for the onshore cable corridor and landfall, with only temporary restriction to agricultural activities, and based upon the areas of land taken ranging from ALC Grades 2-4. Furthermore, where possible, reinstatement of hedgerows and their associated features (banks and ditches), and drainage systems would occur following the installation of each section of cable (section 21.6.1.1 of ES Chapter 21 Land Use).</p> <p>No brownfield sites were identified as being suitable as part of the site selection process (see Site Selection)</p> <p>Mitigation measures include a CoCP and a SMP, secured under the requirements of the draft DCO, which aim to deliver sustainable land use, movement, activity and development as defined in section 21.3.3. Loss of agricultural land is assessed in section 21.6.1.1 and 21.6.2.1. An Outline CoCP (document reference 8.1) has been submitted with this DCO application.</p>

Policy	Summary	Compliance
<p>SP14 and Objective 11 – Biodiversity and Geodiversity</p>	<p><i>To promote a spatial strategy that protects and enhances as far as possible the distinctive and valued natural and historic landscape, and the built environment of the district. To ensure, in particular, that where strategic new development takes place appropriate compensatory and mitigatory measures are secured to ensure that any adverse impacts are limited and that it does not result in coalescence of settlements.</i></p>	<p>Essential compensatory and mitigatory measures are described in section 21.3.3 of ES Chapter 21 Land Use. The distinctive and valued natural and historic landscape will be protected and restored where possible following the installation of each section of cable (section 21.6.1.1). Additional mitigation measures to further reduce the impact significance are suggested in section 21.6.1.3. Residual impacts range from no impact to minor adverse (section 21.10).</p> <p>Please see response to EN-1 sections 5.8.11 and 5.8.13 of Table 6.19 Onshore Archaeology and Cultural Heritage Policy Compliance for consideration of natural and historic landscape in the district.</p>
<p>SP30 – The Coastal Zone</p>	<p><i>Sets out SCDC's commitment to promote Integrated Coastal Zone Management (ICZM). Development which is consistent with ICZM plans and contributes to the sustainable future of coastal and estuarine environment will be supported as will investment and resources from the private sector for coastal defence and adaption measures.</i></p> <p><i>Development will be resisted where it conflicts with the 'adopted Strategic Flood Risk Assessment, the Shoreline Management Plan and Estuarine Plans as endorsed by the Council' (SCDC 2013).</i></p>	<p>Coastal defence and adaptation measures to mitigate against future erosion are addressed in section 7.3.3 of ES Chapter 7 Marine Geology, Oceanography and Physical Processes. Please refer to response provided to EN-1 Section 5.5.10 in Table 6.2 Marine Geology, Oceanography and Physical Processes Policy Compliance for further information.</p> <p>A Flood Risk Assessment was produced to identify and assess the risks of all forms of flooding to and from the project and demonstrate how these flood risks will be managed, taking climate change into account. It is presented in ES Appendix 20.3 Flood Risk Assessment. This does not conflict with SCDCs strategy in the coastal zone as has followed guidance dictated by SMP7: Lowestoft Ness to Felixstowe</p>

Policy	Summary	Compliance
		Landguard Point, Sub-cell 3c and specifically within Policy Development Zone 4 – Dunwich Cliffs to Thorpeness (section 20.3.8 of ES Appendix 20.3). Flood risk management and mitigation measures designed as part of the development are detailed in section 20.3.3 of ES Chapter 20 Water Resources and Flood Risk . does not conflict with SCDCs strategy in the coastal zone.

6.17 Onshore Ecology

314. Compliance with policies relating to onshore ecology are presented in **Table 6.17**. Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 22 Onshore Ecology**. Where other chapters are relevant these have also been signposted.
315. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.17** below in relation to Onshore Ecology.

Table 6.17 Onshore Ecology Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.3.5, 5.3.6, 5.3.7 and 5.3.8 Biodiversity	<p><i>The Government’s biodiversity strategy is set out in ‘Working with the grain of nature’99. Its aim is to ensure:</i></p> <ul style="list-style-type: none"> <i>a halting, and if possible a reversal, of declines in priority habitats and species, with wild species and habitats as part of healthy, functioning ecosystems; and</i> 	Within the context of the challenge of climate change, this project will bring benefits by way of making significant and rapid contributions to national renewable energy targets (see Need and the Case for the Development).

Policy	Summary	Compliance
	<ul style="list-style-type: none"> <i>the general acceptance of biodiversity's essential role in enhancing the quality of life, with its conservation becoming a natural consideration in all relevant public, private and non-governmental decisions and policies</i> <p><i>In having regard to the aim of the Government's biodiversity strategy the IPC should take account of the context of the challenge of climate change: failure to address this challenge will result in significant adverse impacts to biodiversity. The policy set out in the following sections (5.3.9 – 5.3.17) recognises the need to protect the most important biodiversity and geological conservation interests. The benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests. The IPC may take account of any such net benefit in cases where it can be demonstrated.</i></p> <p><i>As a general principle, and subject to the specific policies below (5.3.9 – 5.3.17), development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives...where significant harm cannot be avoided, then appropriate compensation measures should be sought.</i></p> <p><i>In taking decisions, the IPC should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; habitats and other species of principal importance for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment</i></p>	<p>Section 22.4.3.2 of ES Chapter 22 Onshore Ecology details the importance/weighting attributed to sites and species. The most important are issued a 'high' rating:</p> <ul style="list-style-type: none"> Internationally designated sites Nationally designated sites Annex I habitat UK habitat of principle importance European protected species A regularly occurring, nationally significant population <p>Designated sites of relevance to the proposed East Anglia TWO onshore development area are:</p> <ul style="list-style-type: none"> Sandlings SPA Minsmere to Walberswick Ramsar, SPA and SAC Alde-Ore Estuary Ramsar, SPA, SSSI and Alde Ore & Butley Estuaries SAC Leiston to Aldeburgh SSSI Sizewell Marshes SSSI Minsmere to Walberswick Heath and Marshes SSSI <p>With respect to good design and embedded mitigation, ES Figures 22.1 and 22.2 show the designated sites (statutory and non-statutory respectively) within the onshore development area. Avoidance of these designated sites, as far as possible, can be clearly seen through these figures. Please also refer to</p>

Policy	Summary	Compliance
		<p>response to EN-1 Section 5.3.7 in Table 6.1 Good Design, Alternatives and Adaption Policy Compliance</p> <p>Where avoidance of the Sandlings SPA and Leiston - Aldeburgh SSSI is not practicable, the extent of this overlap has been minimised as far as appropriate (a minimum onshore cable route width of 16.1m will be used within the SPA and SSSI (and retaining the option to HDD under the SPA and SSSI).</p> <p>Section 22.10 of ES Chapter 22 Onshore Ecology summarises the impacts which range from no impact to minor adverse for designated sites and features/species of high importance.</p> <p>Non-statutory designated sites are issued medium importance. Non-statutory designated sites within the proposed onshore development area are set out in section 22.5.1 and include:</p> <ul style="list-style-type: none"> • Grove Wood, Buckle's Wood and Great Wood for its ancient woodland • Suffolk shingle beaches for its vegetated shingle • Aldringham to Aldeburgh disused railway line for its species rich grassland • Knodishall Common and Dower House for its acid grassland • Knodishall Whin, Reckham Pits Wood, Sizewell Levels and associated areas and Leiston Common for its habitat mosaic • Benhall Green Meadows for its wet species rich grassland

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • Church Common for its heathland mosaic • Kelsale Morio Meadow for its species rich grassland • Southern Minsmere levels for its grazing marsh <p>As summarised in section 22.10 of ES Chapter 22 Onshore Ecology, no significant adverse impact to non-statutory designated sites and interest features/species will occur.</p> <p>The greatest residual impact after mitigation will be to bats (moderate adverse), however the following mitigation (to be agreed with the regulator prior to construction) may be implemented to ensure that this is short term and temporary:</p> <ul style="list-style-type: none"> • Route refinement to avoid identified bat roosts, where practicable; • Pre-construction survey to confirm the presence of bats; • Replanting of hedgerows (or use of hazel hurdles) temporarily lost during construction works; • All temporary lighting to be designed line with the BCT Bats and Lighting in the UK guidance (2009). This to include the use of directional lighting during construction; • Construction phase lighting will be limited to between 7am-7pm in low light conditions, with lower-level security lighting outside of these times; • Ensure that dark corridors remain in place during the construction phase; and • Pre-cautionary methods when removing trees with bat potential but no presence observed (soft-felling).

Policy	Summary	Compliance
<p>Section 5.3.9 International Sites</p>	<p><i>The most important sites for biodiversity are those identified through international conventions and European Directives. The Habitats Regulations provide statutory protection for these sites but do not provide statutory protection for potential Special Protection Areas (pSPAs) before they have been classified as a Special Protection Area. For the purposes of considering development proposals affecting them, as a matter of policy the Government wishes pSPAs to be considered in the same way as if they had already been classified. Listed Ramsar sites should, also as a matter of policy, receive the same protection.</i></p>	<p>There are no pSPAs identified within the proposed onshore development boundary.</p> <p>As described summarised in section 22.10 of ES Chapter 22 Onshore Ecology, there will be no impact on Minsmere to Walberswick Ramsar.</p> <p>Sites designated through international conventions and European Directives within the proposed East Anglia TWO onshore development are shown in ES Figure 23.2 and include:</p> <ul style="list-style-type: none"> • Sandlings SPA • Minsmere to Walberwswick Ramsar, SPA • Alde-Ore Estuary Ramsar, SPA, SAC <p>There are no pSPAs of ornithological interest identified within the proposed onshore development boundary. There is however Minsmere to Walberswick Ramsar, designated for nationally important numbers of breeding and wintering birds (section 22.5.1 of ES Chapter 22 Onshore Ecology).</p>
<p>Section 5.3.10 and 5.3.11 Sites of Special Scientific Interest (SSSIs)</p>	<p><i>Many SSSIs are also designated as sites of international importance and will be protected accordingly. Those that are not, or those features of SSSIs not covered by an international designation, should be given a high degree of protection. All National Nature Reserves are notified as SSSIs.</i></p> <p><i>Where a proposed development on land within or outside an SSSI is likely to have an adverse effect on an SSSI (either individually or in combination with other developments), development consent should not normally be granted. Where an adverse effect, after</i></p>	<p>SSSIs within the onshore development area include:</p> <ul style="list-style-type: none"> • Leiston to Aldeburgh SSSI <p>With regards to Leiston to Aldeburgh SSSI, mitigation will involve choosing a crossing at the narrowest point, within habitat where no records of ornithological target species were found. The Applicant will not undertake onshore cable route construction works to cross the SSSI boundary or within 200m of the SSSI boundary during the breeding bird season unless</p>

Policy	Summary	Compliance
	<p><i>mitigation, on the site’s notified special interest features is likely, an exception should only be made where the benefits (including need) of the development at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs. The IPC should use requirements and/or planning obligations to mitigate the harmful aspects of the development and, where possible, to ensure the conservation and enhancement of the site’s biodiversity or geological interest.</i></p>	<p>otherwise agreed with Natural England that bird breeding activities within 200m of the 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). With this mitigation applied potential impacts will be negligible.</p> <p>SSSI’s within 2km of the onshore development area include:</p> <ul style="list-style-type: none"> • Alde-Ore Estuary Ramsar SSSI • Sizewell Marshes SSSI • Minsmere to Walberswick Heath and Marshes SSSI <p>As described summarised in section 22.9 of ES Chapter 22 Onshore Ecology, there will be no impact on these sites, therefore no mitigation is required.</p>
<p>Section 5.3.13 Regional and Local Sites</p>	<p><i>Sites of regional and local biodiversity and geological interest, which include Regionally Important Geological Sites, Local Nature Reserves and Local Sites, have a fundamental role to play in meeting overall national biodiversity targets; contributing to the quality of life and the well-being of the community; and in supporting research and education. The IPC should give due consideration to such regional or local designations. However, given the need for new infrastructure, these designations should not be used in themselves to refuse development consent.</i></p>	<p>Non-statutory designated sites within the proposed onshore development area are set out in ES Chapter 22 Onshore Ecology, section 22.5.1 and include:</p> <ul style="list-style-type: none"> • Grove Wood, Buckle’s Wood and Great Wood • Suffolk shingle beaches • Aldringham to Aldeburgh disused railway line • Knodishall Common and Dower House • Knodishall Whin, Reckham Pits Wood, Sizewell Levels and associated areas and Leiston Common • Benhall Green Meadows • Church Common

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • Kelsale Morio Meadow • Southern Minsmere Levels <p>As summarised in section 22.10 of ES Chapter 22 Onshore Ecology, no significant adverse impact to non-statutory designated sites and interest features/species will occur.</p>
Section 5.3.14 Ancient Woodland and Veteran Trees	<i>Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost it cannot be recreated. The IPC should not grant development consent for any development that would result in its loss or deterioration unless the benefits (including need) of the development, in that location outweigh the loss of the woodland habitat. Aged or 'veteran' trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. Where such trees would be affected by development proposals the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons why.</i>	Grove Wood adjacent to the onshore substation site, is the only relevant site designated as ancient woodland. This woodland is to be retained, therefore there will be no change to this valuable biodiversity resource (section 22.6.1.1.3 of ES Chapter 22 Onshore Ecology).
Section 5.3.15 Biodiversity within Developments	<i>Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design. When considering proposals, the IPC should maximise such opportunities in and around developments, using requirements or planning obligations where appropriate.</i>	In December 2018, Defra consulted on plans to introduce the principle of Net gain to the Planning System in England. A Defra's recent response to consultation ²¹ 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.

²¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819823/net-gain-consult-sum-resp.pdf

Policy	Summary	Compliance
		<p>SPR will continue to work constructively with Defra and key stakeholders such as Natural England to support the preparation of guidance on the application of Net Gain and in their work to establish potential approaches to achieving biodiversity net gains for NSIPs and marine developments.</p>
<p>Section 5.3.16 and 5.3.17 Protection of Habitats and Other Species</p>	<p><i>Many individual wildlife species receive statutory protection under a range of legislative provisions.</i></p> <p><i>Other species and habitats have been identified as being of principal importance for the conservation of biodiversity in England and Wales and thereby requiring conservation action. The IPC should ensure that these species and habitats are protected from the adverse effects of development by using requirements or planning obligations. The IPC should refuse consent where harm to the habitats or species and their habitats would result, unless the benefits (including need) of the development outweigh that harm. In this context the IPC should give substantial weight to any such harm to the detriment of biodiversity features of national or regional importance which it considers may result from a proposed development.</i></p>	<p>Habitats and species of biodiversity importance which do not receive statutory protection are described in sections 22.5.2 and 22.5.3 of ES Chapter 22 Onshore Ecology. These include features such as semi-natural woodland and scrub, and species such as bats and badgers respectively. Impacts to these habitats and species are assessed as minor adverse to negligible.</p> <p>The only significant impacts are upon bats during construction which is assessed as moderate adverse residual impact (sections 22.6 and 22.10). This however will be a temporary impact after the mitigation described in section 22.6.1.9.2 is implemented.</p>
EN-3		
<p>Section 2.6.71</p>	<p><i>‘Ecological monitoring is likely to be appropriate during the construction and operational phases to identify the actual impact so that, where appropriate, adverse effects can then be mitigated and to enable further useful information to be published relevant to future projects.’</i></p>	<p>Ecological monitoring is discussed in section 22.3.4 of ES Chapter 22 Onshore Ecology. The requirement for a final appropriate design and scope of monitoring will be agreed with the relevant planning authority in consultation with Natural England and included within the relevant management plan(s), submitted for approval, prior to construction works commencing as secured under the requirements of the draft DCO.</p>

Policy	Summary	Compliance
EN-5		
Section 2.7.1 and 2.7.3	<i>Generic biodiversity effects are covered in Section 5.3 of EN-1. However, large birds such as swans and geese may collide with overhead lines associated with power infrastructure, particularly in poor visibility..... The IPC should ensure that this issue has been considered in the ES and that appropriate mitigation measures will be taken where necessary.</i>	As this relates specifically to ornithology please refer to response to EN-5 Section 2.7.3 in Table 6.18 Onshore Ornithology Policy Compliance.
National Planning Policy Framework		
Section 15 Paragraph 170	<p><i>Planning policies and decisions should contribute to and enhance the natural and local environment by:</i></p> <p><i>a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);...</i></p> <p><i>d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;</i></p>	<p>a) Statutory and non-statutory sites which are designated for their nature conservation and biodiversity value are detailed in sections 22.5.1 and 22.5.2 of ES Chapter 22 Onshore Ecology. Protected and notable species are listed in section 22.5.3. After mitigation, the residual impact on these sites and species is assessed as minor adverse to negligible, with the exception of temporary construction impacts upon bats which are moderate adverse. The mitigation measures to be employed for bats are listed in section 22.6.1.9.2. No significant adverse impacts are predicted, therefore these sites of biodiversity value will remain protected.</p> <p>d) Arable habitats, Hedgerows, Trees, Grasslands and Hedgerows are recognised as important habitats for maintaining and establishing coherent ecological networks. Impacts on these habitats and associated species are assessed in section 22.6. No significant adverse impacts are predicted during construction and operational lifetime of the project. Where there will be temporary loss, hedgerows, shelterbelts and woodlands will be replanted and this will be monitored and maintained for</p>

Policy	Summary	Compliance
		<p>an aftercare period of up to ten years in order to minimise impacts as much as possible (section 22.3.3).</p> <p>SPR will continue to work constructively with Defra and key stakeholders such as Natural England to support the preparation of guidance on the application of Net Gain and in their work to establish potential approaches to achieving biodiversity net gains for NSIPs and marine developments.</p>
<p>Section 15 Paragraph 175</p>	<p><i>When determining planning applications, local planning authorities should apply the following principles:</i></p> <p><i>a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;</i></p> <p><i>b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;</i></p> <p><i>c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and</i></p> <p><i>d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate</i></p>	<p>a) No significant adverse impacts are predicted with the exception of temporary construction impacts upon bats. Embedded mitigation such as the avoidance of designated sites where possible and construction methods are described in section 22.3.3. Habitat and species-specific mitigation is described in section 22.6. Mitigation for impacts on bats is described in response to EN-1 Section 5.3.5 – 5.3.8 in this compliance table.</p> <p>b) Please see responses to EN-1 sections 5.3.8, 5.3.10 and 5.3.11 for consideration of SSSIs. There will be no significant adverse impact on Alde-Ore Estuary Ramsar SSSI, Leiston to Aldeburgh, Sizewell Marshes and Minsmere to Walberswick Heath and Marshes SSSI.</p> <p>c) The proposed East Anglia TWO project will not lead to a loss of any ancient woodland. Impacts to other woodland and trees are assessed in section 22.6.1.4. Up to 1ha of broadleaved semi-natural woodland could be lost during the construction phase however The Applicant will ensure that at least an equivalent area of lost woodland is replanted following completion of the works. No veteran trees will be affected.</p>

Policy	Summary	Compliance
	<i>biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.</i>	d) SPR will continue to work constructively with Defra and key stakeholders such as Natural England to support the preparation of guidance on the application of Net Gain and in their work to establish potential approaches to achieving biodiversity net gains for NSIPs and marine developments.
Section 15 Paragraph 176	<i>The following should be given the same protection as habitats sites:</i> a) <i>potential Special Protection Areas and possible Special Areas of Conservation;</i> b) <i>listed or proposed Ramsar sites; and</i> c) <i>sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.</i>	a) Designated sites are presented in section 22.5.1 of ES Chapter 22 Onshore Ecology . There are no <i>potential</i> SPAs or SACs within the proposed East Anglia TWO development site and no pathways identified for any outside of the proposed site. b) Ramsar sites are listed in response to EN-1 Section 5.3.8 of this compliance table . c) Not relevant as no adverse effects (see (a) & (b) above)
Section 15 Paragraph 177	<i>The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.</i>	No significant adverse effects are predicted on habitat sites as concluded in ES Chapter 22 Onshore Ecology . ES Chapter 23 Onshore Ornithology and the Information to Support Appropriate Assessment Report (document reference 5.3).
SCC Nature Strategy		
Recommendation 1	<i>By 2020 at least 50% of Suffolk's SSSIs will be in favourable condition, whilst maintaining at least 95% in favourable or recovering condition.</i>	Section 22.10 of ES Chapter 22 Onshore Ecology summarises that there will be no significant adverse impacts to any SSSI's due to the proposed development therefore this objective will not be affected. Note that the Leiston to Aldeburgh SSSI is located within the onshore development area. Mitigation

Policy	Summary	Compliance
		described in response to EN-1 IPC sections 5.3.10 and 5.3.11 will result in no overall change to this SSSI.
Recommendation 3	<i>Public bodies and statutory undertakers should ensure that, in exercising their functions, they have access and pay due regard to appropriate ecological evidence and advice so as to ensure that their duties under the relevant legislation are met.</i>	Ecological evidence is provided throughout ES Chapter 22 Onshore Ecology and its associated ES Appendices (22.1 Extended Phase 1 Habitat Survey Report, 22.2 eDNA Survey Report, 22.3 Water Vole and Otter Survey Report, 22.4 Bat Survey Report and 22.5 CIA with the proposed East Anglia One North Project) . Best practice industry assessment guidance has been followed as part of the methodology employed in the ES (section 22.4.1.15) and a robust assessment has been produced. A summary of consultation with public bodies and relevant stakeholders is provided in ES Appendix 22.1 Consultation Responses .
Recommendation 22	<i>Biodiversity offsetting must follow Government guidelines and the mitigation hierarchy, set out in the NPPF. Offsetting should only occur when all steps to avoid and mitigate impacts have been exhausted and should not be seen as a licence to damage sites where less damaging alternatives exist. Offsetting should not apply to internationally or nationally designated sites.</i>	The mitigation measures described in sections 22.3.3, 22.6 and 22.7 , reduce impacts to between no impact and minor adverse, apart from on bats (however this is temporary). As such, offsetting has not been considered within ES Chapter 22 Onshore Ecology as it is not required.
Suffolk Coastal Local Plan -		
SCLP10.1 – Biodiversity and Geodiversity	<i>Development will be supported where it can be demonstrated that it maintains, restores or enhances the existing green infrastructure network and positively contributes towards biodiversity and/or geodiversity through the creation of new green infrastructure and</i>	Any loss of existing green infrastructure such as hedgerows (section 22.6.1.9.2 of ES Chapter 22 Onshore Ecology) and woodland (section 22.6.1.4.2) which serve as wildlife corridors will be restored/replanted. At least an equivalent area of

Policy	Summary	Compliance
	<p><i>improvement to linkages between habitats, such as wildlife corridors and habitat ‘stepping stones’.</i></p>	<p>woodland will be replanted following completion of the construction phase.</p> <p>SPR will continue to work constructively with Defra and key stakeholders such as Natural England to support the preparation of guidance on the application of Net Gain and in their work to establish potential approaches to achieving biodiversity net gains for NSIPs and marine developments.</p>
	<p><i>Proposals that will have a direct or indirect adverse impact (along or combined with other plans or projects) on locally recognised sites of biodiversity or geodiversity importance, including County Wildlife Sites, priority habitats and species, will not be supported unless it can be demonstrated that new opportunities to enhance the green infrastructure network will be provided as part of the development that will mitigate or compensate for this loss.</i></p>	<p>Designated sites of biodiversity importance are shown in ES Figures 22.1 and 22.2, alongside the proposed onshore development area, clearly showing reduced overlap between the two wherever possible. No non-designated sites will experience an impact from development (section 22.10) due to site selection and the mitigation measures presented throughout ES Chapter 22 Onshore Ecology.</p>
	<p><i>Where compensatory habitat is created, it should be of equal or greater size than the area lost as a result of the development, be well located to positively contribute towards the green infrastructure network, and biodiversity and/or geodiversity and be supported with a management plan.</i></p>	<p>Woodland habitat will be restored where possible first and foremost, as will hedgerows. Where compensatory habitat is introduced, at least an equivalent area of habitat will be introduced (section 22.6.1.4.2 of ES Chapter 22 Onshore Ecology).</p>
	<p><i>Where there is reason to suspect the presence of protected species or habitat, applications should be supported by an ecological survey undertaken by a suitably qualified person. If present, the proposal must be sensitive to, and make provision for their needs.</i></p>	<p>Where the presence of protected species or habitat has been suspected by a suitably qualified person, an ecological survey was conducted. These surveys are presented in ES Appendix 22.2 Extended Phase 1 Habitat Survey Report, 22.2 eDNA Survey Report, 22.3 Water Vole and Otter Survey Report and 22.4 Bat Survey Report. Where the presence of protected species or habitat has been confirmed suitable mitigation measures and provisions for their needs have been included in</p>

Policy	Summary	Compliance
		section 22.3.3, 22.6 and 22.7 of ES Chapter 22 Onshore Ecology .
	<i>Any development with the potential to impact on a Special Protection Area or Special Area for Conservation within or outside of the District will need to be supported by information to inform a Habitat Regulations Assessment.</i>	Information to Support the Appropriate Assessment Report (document reference 5.3) presents an assessment of effects upon The Sandlings SPA. This is also discussed in section 22.10 of ES Chapter 22 Onshore Ecology .
	<i>A Supplementary Planning Document will be prepared to implement a Recreational Avoidance and Mitigation Strategy in order to mitigate any potential significant adverse effects on Special Protection Areas and Special Areas for Conservation. The Council will work with neighbouring authorities and Natural England to develop this strategy. The strategy will include a requirement for developers to make financial contributions towards the provision of strategic mitigation within defined zones.</i>	No significant impacts to interest features of Special Protection Areas and Special Areas for Conservation are predicted.
SCDC Core Strategy & Development Management Policies		
SP14 and Objective 11	<i>Biodiversity and geodiversity will be protected and enhanced using a framework based on a network of:</i> <i>Designated sites;</i> <i>Wildlife corridors and links;</i> <i>The rivers, estuaries and coast;</i> <i>Identified habitats and geodiversity features</i> <i>Landscape character areas; and</i> <i>Protected species.</i>	The designated sites within the proposed development's study area are defined in ES section 22.5.1 of ES Chapter 22 Onshore Ecology . As shown in ES Figures 22.1 and 22.2 there are no designated sites that are within the indicative onshore development area, except through the Leiston-Aldeburgh SSSI, where there will be no significant adverse impacts through mitigatory use of HDD (see mitigation described in response to EN-1 IPC sections 5.3.10 and 5.3.11), and the Sandlings SPA.

Policy	Summary	Compliance
	<p><i>Sites of European importance, which include Special Areas of Conservation and Special Protection Areas are statutorily protected under the Conservation of Habitats and Species Regulations 2017 (based on EU directives), and wetlands of global importance (Ramsar sites) are protected by Government policy to apply the same level of protection as to European sites. More generally, the policy approach to development on sites designated for their biodiversity or geodiversity interest is set out in Policy DM27. The Suffolk BAP and Suffolk Local Geodiversity Action Plan will be implemented. The Strategy will also be to contribute to county targets through the restoration, creation and on-going management of new priority habitats as identified in those documents.</i></p>	<p>Equivalent areas of wildlife corridors such as hedgerows and woodlands will be restored as described in response to SCLP 10.1 above.</p> <p>A total of 40 water bodies, comprising ditches, ponds and rivers, including The Hundred River, Leiston Beck and the Friston Watercourse (all Main Rivers), are located within the indicative onshore development area. The three rivers are extensively modified (typically related to land drainage) and relatively narrow (up to approximately 5m wide). The onshore cable corridor will need to cross these water bodies and given their narrow width the preferred crossing technique would be open cut trenching. This will result in temporary impacts to the bed and bank habitats. The mitigation measures set out in section 22.6.1.7.1 mean the residual impact is minor adverse and will therefore remain protected.</p> <p>Identified habitats include arable, grassland, and coastal. The largest habitat by area within the indicative onshore development area is arable land. Arable land is typically of low ecological value. Arable field margins are a UK BAP and Suffolk LBAP Priority Habitat but the examples here do not qualify, as they are species-poor and heavily affected by agricultural inputs. As such arable habitat is of negligible ecological importance and impacts are negligible.</p> <p>Only two grassland types are present in the indicative onshore development area – improved grassland and semi-improved grassland. Both habitat types are classed as receptors of low ecological value. Impacts are assessed as negligible.</p>

Policy	Summary	Compliance
		<p>The project has committed to HDD at the landfall, which avoids any interaction with coastal habitats, i.e. no requirement for beach access. As such, coastal habitats would not be affected directly or indirectly by construction. As such no change upon coastal habitats is anticipated as a result of the proposed works.</p> <p>For an assessment of landscape character areas please refer to Table 6.23 Seascape, Landscape and Visual Impact Assessment, and Landscape and Visual Impact Assessment Policy Compliance and Table 6.11 Marine Archaeology and Cultural Heritage Policy Compliance. The OLEMS (document 8.7) has considered landscape character and in particular, has identified components of landscape which would be either reinforced or recreated.</p> <p>No significant adverse impacts on protected species badgers, bats, great crested newts and reptiles are predicted and therefore they will continue to be protected.</p>
DM27	<p><i>All development proposals should:</i></p> <p><i>Protect the biodiversity and geodiversity value of land and buildings and minimise fragmentation of habitats;</i></p> <p><i>Maximise opportunities for restoration, enhancement and connection of natural habitats; and</i></p> <p><i>Incorporate beneficial biodiversity conservation features where appropriate.</i></p> <p><i>Development proposals that would cause a direct or indirect adverse effect (alone or combined with other plans or projects) to the integrity of internationally and nationally designated</i></p>	<p>Biodiversity and geodiversity are protected through avoidance first and foremost. Site selection decisions and embedded mitigation measures have sought to avoid features of biodiversity and geological interest as described in Site Selection. Habitat fragmentation has been considered for species such as great crested newts and bats. For great crested newts this will not be significant, and this will be minimised. For bats, there will be a temporary loss of hedgerow however this will be restored upon completion of construction and is not assessed as significant.</p>

Policy	Summary	Compliance
	<p><i>environmental sites or other designated areas, priority habitats or protected/priority species will not be permitted unless:</i></p> <p><i>Prevention, mitigation and, where appropriate, compensation measures are provided such that net impacts are reduced to a level below which the impacts no longer outweigh the benefits of the development; or...</i></p>	<p>Mitigation measures to reduce any impacts to legally protected species and habitats and species of principal importance are included in sections 22.3.3, 22.6 and 22.7 of ES Chapter 22 Onshore Ecology. These mitigation measures include confining activities to the minimum area required for works, following best practise measures and restoration works for example woodland and hedgerows.</p> <p>Due to the mitigation and restoration measures in place no designated sites will experience adverse impacts (section 22.10) except the Sandlings SPA which will only experience minor impacts. As described in response to EN-1 IPC section 5.3.10 and 5.3.11, with regards to Leiston to Aldeburgh SSSI, mitigation will involve choosing a crossing at the narrowest point, within habitat where no records of ornithological target species were found. The Applicant will not undertake onshore cable route construction works to cross the SSSI boundary or within 200m of the SSSI boundary during the breeding bird season unless otherwise agreed with Natural England that bird breeding activities within 200m of the 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). With this mitigation applied potential impacts will be negligible.</p>
WDC Local Plan		
<p>WLP8.34 Biodiversity and Geodiversity</p>	<p><i>Proposals that will have a direct or indirect adverse impact on locally recognised sites of biodiversity or geodiversity importance, including County Wildlife Sites, Biodiversity Action Plan habitats and species, must demonstrate that new opportunities to enhance</i></p>	<p>Designated sites of biodiversity importance are shown in ES Figures 22.1 and 22.2, alongside the proposed onshore development area. Overlap has been minimised as far as possible as part of Site Selection. No non-designated sites will</p>

Policy	Summary	Compliance
	<p><i>the green infrastructure network will be provided as part of the development that will mitigate or compensate for this loss.</i></p> <p><i>Where compensatory habitat is created, it should be of equal or greater size than the area lost as a result of the development, be well located to positively contribute towards the green infrastructure network and biodiversity and be supported with a management plan.</i></p> <p><i>Where there is reason to suspect the presence of protected species or habitat, applications should be supported by an ecological survey undertaken by a suitably qualified person. If present the proposal must be sensitive to, and make provision for their needs.</i></p> <p><i>Any development with the potential to impact on a Special Protection Area or Special Area for Conservation within or outside of the District will need to be supported by information to inform a Habitat Regulations Assessment.</i></p>	<p>experience an impact from development (section 22.10) due to site selection and the mitigation measures presented throughout ES Chapter 22 Onshore Ecology.</p> <p>Impacts upon Biodiversity Action Plan habitats (e.g. hedgerows, arable field margins, ponds and rivers) and species (e.g. bats and great crested newts) (section 22.10), will be mitigated against through green infrastructure enhancement (sections 22.6.1.5.1 and 22.6.1.9.2)</p> <p>Compensatory woodland habitat and hedgerows will be of equal or greater size than the area lost (section 22.6.1.4.2 of ES Chapter 22 Onshore Ecology).</p> <p>SPR will continue to work constructively with Defra and key stakeholders such as Natural England to support the preparation of guidance on the application of Net Gain and in their work to establish potential approaches to achieving biodiversity net gains for NSIPs and marine developments.</p> <p>Where the presence of protected species or habitat has been suspected by a suitably qualified person, an ecological survey was conducted. These surveys are presented in ES Appendices 22.1 Extended Phase 1 Habitat Survey Report, 22.2 eDNA Survey Report, 22.3 Water Vole and Otter Survey Report and 22.4 Bat Survey Report. Where the presence of protected species or habitat has been confirmed suitable mitigation measures and provisions for their needs have been included in section 22.3.3, 22.6 and 22.7 of ES Chapter 22 Onshore Ecology.</p> <p>Information to Support the Appropriate Assessment (document reference 5.3) is presented as the Sandlings SPA</p>

Policy	Summary	Compliance
		may experience minor impacts as described in section 22.10 of ES Chapter 22 Onshore Ecology .

6.18 Onshore Ornithology

316. Compliance with policies relating to onshore ornithology are presented in **Table 6.18**. Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 23 Onshore Ornithology**. Where other chapters are relevant these have also been signposted.

317. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.18** below in relation to Onshore Ornithology.

Table 6.18 Onshore Ornithology Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.3.5, 5.3.6, 5.3.7 and 5.3.8 Biodiversity	<p><i>The Government's biodiversity strategy is set out in 'Working with the grain of nature'99. Its aim is to ensure:</i></p> <ul style="list-style-type: none"> <i>a halting, and if possible a reversal, of declines in priority habitats and species, with wild species and habitats as part of healthy, functioning ecosystems; and</i> <i>the general acceptance of biodiversity's essential role in enhancing the quality of life, with its conservation becoming a natural consideration in all relevant public, private and non-governmental decisions and policies.</i> 	<p>With regards to onshore ornithology and biodiversity, internationally, nationally and locally designated sites within the study area of the onshore indicative development area are described in section 23.5.2 of ES Chapter 23 Onshore Ornithology.</p> <p>The determining factors of a bird population's nature conservation importance/weighting are described in section 23.4.3.1. The most important populations are those that are receiving protection as a feature of an SPA, proposed SPA, Ramsar site, SSSI or which would otherwise qualify under selection guidelines. High importance also extends to species</p>

Policy	Summary	Compliance
	<p><i>In having regard to the aim of the Government’s biodiversity strategy the IPC should take account of the context of the challenge of climate change: failure to address this challenge will result in significant adverse impacts to biodiversity. The policy set out in the following sections recognises the need to protect the most important biodiversity and geological conservation interests. The benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests. The IPC may take account of any such net benefit in cases where it can be demonstrated.</i></p> <p><i>As a general principle, and subject to the specific policies below, development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives (as set out in section 4.4 above); where significant harm cannot be avoided, then appropriate compensation measures should be sought.</i></p> <p><i>In taking decisions, the IPC should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; habitats and other species of principal importance for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment.’</i></p>	<p>present in nationally important numbers (>1% national breeding population).</p> <p>The proposed East Anglia TWO project will not cause any significant adverse impacts on the interest features of these designated sites. Residual impacts range from minor adverse to negligible (section 23.10), therefore ornithological biodiversity will continue to be protected. An appropriate assessment was conducted. The Sandlings SPA was screened in for further assessment due to habitat loss and disturbance. No significant adverse effect on site integrity was concluded in the Information to Support the Appropriate Assessment Report (document reference 5.3).</p> <p>The context of climate change is discussed in in section 23.5.5 of ES Chapter 23 Onshore Ornithology. On balance, it is likely that without the proposed East Anglia TWO project, most target species currently found within the indicative onshore development area would decline in numbers over the long-term, should climate changes occur as predicted. The proposed East Anglia TWO project would provide a contribution towards reducing the rate of change in the climate over the long-term, by providing lower emissions in producing energy compared to non-renewable sources.</p>
Section 5.3.9 International sites	<p><i>The most important sites for biodiversity are those identified through international conventions and European Directives. The Habitats Regulations provide statutory protection for these sites but do not provide statutory protection for potential Special Protection Areas (pSPAs) before they have been classified as a Special Protection Area.</i></p>	<p>Sites designated through international conventions and European Directives within the proposed East Anglia TWO onshore development are shown in ES Figure 23.2 and include:</p> <ul style="list-style-type: none"> • Sandlings SPA

Policy	Summary	Compliance
	<p><i>For the purposes of considering development proposals affecting them, as a matter of policy the Government wishes pSPAs to be considered in the same way as if they had already been classified. Listed Ramsar sites should, also as a matter of policy, receive the same protection.</i></p>	<ul style="list-style-type: none"> • Minsmere to Walberswick Ramsar, SPA • Alde-Ore Estuary Ramsar, SPA, SAC <p>There are no pSPAs of ornithological interest identified within the proposed onshore development boundary. There is however Minsmere to Walberswick Ramsar, designated for nationally important numbers of breeding and wintering birds (section 22.5.1 of ES Chapter 22 Onshore Ecology).</p>
<p>Section 5.3.10 and 5.3.11 Sites of Special Scientific Interest (SSSIs)</p>	<p><i>Many SSSIs are also designated as sites of international importance and will be protected accordingly. Those that are not, or those features of SSSIs not covered by an international designation, should be given a high degree of protection. All National Nature Reserves are notified as SSSIs.</i></p> <p><i>Where a proposed development on land within or outside an SSSI is likely to have an adverse effect on an SSSI (either individually or in combination with other developments), development consent should not normally be granted. Where an adverse effect, after mitigation, on the site's notified special interest features is likely, an exception should only be made where the benefits (including need) of the development at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs. The IPC should use requirements and/or planning obligations to mitigate the harmful aspects of the development and, where possible, to ensure the conservation and enhancement of the site's biodiversity or geological interest.</i></p>	<p>Designated SSSI's for Onshore Ornithology are described in section 23.5.2 of ES Chapter 23 Onshore Ornithology and are shown in ES Figure 23.2. They are:</p> <ul style="list-style-type: none"> • Leiston-Aldeburgh • Sizewell Marshes • Minsmere – Walberswick Heath and Marshes • Snape Warren • Alde-Ore Estuary • Sandlings Forest • Blaxhall Heath <p>Potential impacts relating to disturbance and habitat loss are assessed in section 23.6. The residual impacts after mitigation are minor adverse and not significant (section 23.10).</p> <p>The landfall location was influenced from the onset of the project design process by the presence of designated sites (see Site Selection), specifically Leiston-Aldeburgh SSSI. The project has</p>

Policy	Summary	Compliance
		<p>committed to the use of HDD (see The Application Location and Project Description) at the landfall to minimise potential impacts (including avoiding direct impacts).</p> <p>An Ecological Management Plan (EMP) will be developed for the construction activities as secured under the requirements of the draft DCO and will adhere to construction industry good practice guidance. This will incorporate a Breeding Bird Protection Plan (BBPP) which will ensure that the nests, eggs and young of any bird species are protected.</p>
<p>Section 5.3.13 Regional and Local Sites</p>	<p><i>Sites of regional and local biodiversity and geological interest, which include Regionally Important Geological Sites, Local Nature Reserves and Local Sites, have a fundamental role to play in meeting overall national biodiversity targets; contributing to the quality of life and the well-being of the community; and in supporting research and education. The IPC should give due consideration to such regional or local designations. However, given the need for new infrastructure, these designations should not be used in themselves to refuse development consent.</i></p>	<p>The RSPB's North Warren RSPB reserve overlaps with the proposed onshore development area. Records of target species within the part of the North Warren RSPB reserve that overlaps with the indicative onshore development area were provided by the RSPB in December 2017 and are presented within section 23.5.4 of ES Chapter 23 Onshore Ornithology. These target species have been assessed as part of the ES. No significant adverse impacts are predicted (section 23.10).</p>
<p>Section 5.3.15 Biodiversity within Developments</p>	<p><i>Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design. When considering proposals, the IPC should maximise such opportunities in and around developments, using requirements or planning obligations where appropriate.</i></p>	<p>With respect to good project design (please also refer back to response for EN-1 Section 5.3.7 in Table 6.1 Good Design, Alternatives and Adaption Policy Compliance), the landfall location was influenced from the onset of the project design process by the presence of designated sites, specifically Leiston-Aldeburgh SSSI. The route of the onshore cable corridor was influenced by the location of the Sandlings SPA and Leiston-Aldeburgh SSSI (ES Figure 23.2). The design minimises overlap and a crossing has been chosen at the narrowest point, within habitat where no records of ornithological target species were</p>

Policy	Summary	Compliance
		<p>found. The potential loss of woodland habitat for birds was identified early in the project design process, and therefore the locations of substations are positioned so as to minimise woodland removal, in an area of lower conservation value arable farmland (section 23.3.3 of ES Chapter 23 Onshore Ornithology).</p> <p>SPR will continue to work constructively with Defra and key stakeholders such as Natural England to support the preparation of guidance on the application of Net Gain and in their work to establish potential approaches to achieving biodiversity net gains for NSIPs and marine developments.</p> <p>With regards to onshore beneficial biodiversity impacts, the Applicant has assessed likely impacts and committed to further work in advance of construction as secured in the requirements of the draft DCO. Suitable mitigation has been identified and in landscape terms, the Applicant has sought to maximise the biodiversity benefits arising from it by careful selection of species that are planted as an example. Further information is provided in the OLEMS document (5.3).</p>
<p>Section 5.3.16 and 5.3.17 Protection of Habitats and Other Species</p>	<p><i>Many individual wildlife species receive statutory protection under a range of legislative provisions.</i></p> <p><i>Other species and habitats have been identified as being of principal importance for the conservation of biodiversity in England and Wales and thereby requiring conservation action. The IPC should ensure that these species and habitats are protected from the adverse effects of development by using requirements or planning obligations. The IPC should refuse consent where harm to the habitats or species and their habitats would result, unless the benefits (including need) of the</i></p>	<p>Data has been collected for other target species, which do not have statutory protection of principle importance for the conservation of biodiversity.</p> <p>A summary of other ornithological receptors recorded during field surveys and their conservation status is provided in section 23.5.4 of ES Chapter 23 Onshore Ornithology. Details of survey observations are shown in ES Figures 23.3 to 23.9. This includes species that are listed in Schedule 1 of the Wildlife & Countryside Act 1981 and afforded additional legal protection</p>

Policy	Summary	Compliance
	<i>development outweigh that harm. In this context the IPC should give substantial weight to any such harm to the detriment of biodiversity features of national or regional importance which it considers may result from a proposed development.</i>	from disturbance. Of the species scoped in to the final EIA, impacts range from not significant to minor adverse.
EN-3		
Section 2.6.69 Biodiversity	<i>The designation of an area as Natura 2000 site does not necessarily restrict the construction or operation of offshore wind farms in or near that area (see also Section 4.3 of EN-1).</i>	No significant impacts are predicted for qualifying features of Natura 2000 sites (section 23.10 of ES Chapter 23 Onshore Ornithology). The onshore cable corridor location was influenced from the onset of the project design process (see Site Selection) by the presence of designated sites such as Sandlings SPA. 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. The cable route working width within the Sandlings SPA will be minimised to the minimum required (16.1m) (section 23.3.3 of ES Chapter 23 Onshore Ornithology).
EN-5		
Section 2.7.1 and 2.7.3	<i>Generic biodiversity effects are covered in Section 5.3 of EN-1. However, large birds such as swans and geese may collide with overhead lines associated with power infrastructure, particularly in poor visibility. Large birds in particular may also be electrocuted when landing or taking off by completing an electric circuit between live and ground wires. Even perching birds can be killed as soon as their wings touch energised parts.</i>	There will be a requirement to undertake upgrades to the existing pylons within the national Grid overhead line realignment works area. This will require the installation of one additional pylon to allow connection to the transmission network via new cable sealing ends (section 6.3 of ES Chapter 6 Project Description). As these works are realignment only, and the footprint is not materially increasing, no impacts are anticipated.

Policy	Summary	Compliance
	<p><i>The applicant will need to consider whether the proposed line will cause such problems at any point along its length and take this into consideration in the preparation of the Environmental Impact Assessment (EIA) and ES (see Section 4.2 of EN-1). Particular consideration should be given to feeding and hunting grounds, migration corridors and breeding grounds.</i></p> <p><i>The IPC should ensure that this issue has been considered in the ES and that appropriate mitigation measures will be taken where necessary.</i></p>	
National Planning Policy Framework		
<p>Section 15 Paragraph 170</p> <p>Conserving and enhancing the natural environment</p>	<p><i>Planning policies and decisions should contribute to and enhance the natural and local environment by:</i></p> <p><i>a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); ...</i></p>	<p>No significant adverse effects are predicted for any of the designated sites listed in section 23.5.2 of ES Chapter 22 Onshore Ornithology. The Information to Support the Appropriate Assessment Report (document reference 5.3) concluded no significant adverse effect to site integrity of the designated sites with regards to onshore ornithology. The proposed East Anglia TWO project therefore does not undermine the protection of these valued sites for biodiversity.</p>
<p>Section 15 Paragraph 175</p> <p>Habitats and Biodiversity</p>	<p><i>When determining planning applications, local planning authorities should apply the following principles:</i></p> <p><i>a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;</i></p> <p><i>b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either</i></p>	<p>a) Significant harm to biodiversity will not occur. Impacts to biodiversity and subsequent mitigation is discussed in response to EN-1 sections 5.3.5, 5.3.6, 5.3.7 and 5.3.8 of this compliance table.</p> <p>b) Impacts on SSSIs are considered in response to EN-1 sections 5.3.10 and 5.3.11 of this compliance table. Impacts are assessed as not significant.</p>

Policy	Summary	Compliance
	<i>individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest; ...</i>	As referenced in response to EN-1 Section 5.3.10 and 5.3.11 in this compliance table , a CoCP will be developed for the construction activities as secured under the requirements of the draft DCO and will adhere to construction industry good practice guidance. This will incorporate a Breeding Bird Protection Plan (BBPP) for works within 200m of a SPA or SSSI boundary which will ensure that the nests, eggs and young of any bird species are protected. An Outline CoCP (document reference 8.1) has been submitted with this DCO application.
Section 15 Paragraph 176 Habitats and biodiversity	<i>The following should be given the same protection as habitats sites:</i> <i>a) potential Special Protection Areas and possible Special Areas of Conservation;</i> <i>b) listed or proposed Ramsar sites; and</i> <i>c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.</i>	a) There are no pSPAs or pSACs of ornithological interest identified within the proposed onshore development boundary. b) Ramsar sites and their qualifying features have been listed as being of 'high' nature conservation importance and this has been factored into their sensitivity level in the assessment in ES Chapter 23 Onshore Ornithology (section 23.4.3.1). Please see response to EN-1 Section 5.3.8 in this compliance table for listed and proposed Ramsar sites. c) Not relevant as no adverse effects (see (a) & (b) above)
Section 15 Paragraph 177 Habitats and biodiversity	<i>The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.</i>	For the sites that have received European statutory protection (see EN-1 Section 5.3.9 in this compliance table), no s adverse effects on site integrity is concluded in the Information to Support the Appropriate Assessment Report (document reference 5.3). For other sites of conservation importance (see EN-1 Section 5.3.10 and 5.3.11), no significant adverse impacts are concluded in ES Chapter 23 Onshore Ornithology .

6.19 Onshore Archaeology and Cultural Heritage

318. Compliance with policies relating to onshore archaeology and cultural heritage are presented in **Table 6.19 Onshore Archaeology and Cultural Heritage Policy Compliance**. Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 24 Onshore Archaeology and Cultural Heritage**.

319. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.19** below in relation to Onshore Archaeology and Cultural Heritage.

Table 6.19 Onshore Archaeology and Cultural Heritage Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.8.11	<p><i>In considering applications, the Infrastructure Planning Commission (IPC) should seek to identify and assess the particular significance of any heritage asset that may be affected by the proposed development, including by development affecting the setting of a heritage asset, taking account of:</i></p> <ul style="list-style-type: none"> <i>Evidence provided with the application;</i> <i>Any designation records;</i> <i>The Historic Environment Record, and similar sources of information;</i> <i>The heritage assets themselves;</i> <i>The outcome of consultations with interested parties; and</i> <i>Where appropriate and when the need to understand the significance of the heritage asset demands it, expert advice</i> 	<p>Heritage assets within the proposed East Anglia TWO onshore development area have been identified. These are illustrated in ES Figures 24.1 – 24.4 and described in detail in ES Appendix 24.3 East Anglia TWO and East Anglia ONE North Offshore Windfarms: Onshore Archaeology and Cultural Heritage Desk Based Assessment.</p> <p>The indicative criteria for determining heritage importance is outlined in section 24.4.3.1 of ES Chapter 24 Archaeology and Cultural Heritage, which is based on perceived international/national importance, regional importance and local importance.</p> <p>A short list of assets requiring further consideration was produced based on potential visual change in the setting of assets (section 24.5.2.3). These are:</p> <ul style="list-style-type: none"> Little Moor Farm (1215743, Grade II).

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • High House Farm (1216049, Grade II). • Friston House (1216066, Grade II). • Woodside Farmhouse (1215744, Grade II). • Church of St Mary, Friston (1287864, Grade II*). • Friston War Memorial (1435814, Grade II). • Friston Post Mill (1215741, Grade II*). • Aldringham Court (1393143, Grade II). <p>There are 80 non-designated heritage assets within the proposed onshore development area, comprising 34 heritage assets recorded by the HER and / or National Record for the Historic Environment (NRHE) and 46 previously unrecorded heritage assets (ES Appendix 24.3 East Anglia TWO and East Anglia ONE North Offshore Windfarms: Onshore Archaeology and Cultural Heritage Desk Based Assessment and ES Figure 24.3).</p> <p>Heritage significance is assessed in line with the methodology set out in section 24.4.2.1 of ES Chapter 24 Archaeology and Cultural Heritage based on best available data and industry assessment guidance as set out in section 24.4.1.2. The significance of any heritage assets that may be affected by the proposed development, and their locations, is described in section 24.5.2.2. Residual impacts on designated and non-designated assets range from minor adverse to no impact (section 24.10).</p> <p>Consultation with stakeholders is presented in ES Appendix 24.1 Consultation Responses. Expert advice has been sought via ETG from stakeholders such as Suffolk County Council and Suffolk</p>

Policy	Summary	Compliance
		Coastal District Council, Suffolk Preservation Society and Historic England.
Section 5.8.12	<p><i>In considering the impact of a proposed development on any heritage assets, the IPC should take into account the particular nature of the significance of the heritage assets and the value that they hold for this and future generations. This understanding should be used to avoid or minimise conflict between conservation of that significance and proposals for development.</i></p>	<p>Heritage significance is assessed in line with the methodology set out in section 24.4.2.1 of ES Chapter 24 Onshore Archaeology and Cultural Heritage based on available data. The particular nature of the significance of designated heritage assets and their locations have been presented in ES Figures 24.2-4 and are described in detail in section 24.5.2.</p> <p>Section 24.5.3 summarises the preliminary findings of non-designated heritage assets within the proposed onshore development area. This includes sub-surface archaeological remains and above ground archaeological remains and heritage assets and an assessment of their significance.</p> <p>To avoid or minimise conflict with conservation of heritage assets the cable route has been refined where possible to avoid heritage assets. The proposed onshore development area has undergone an extensive site selection process to avoid direct physical impacts on designated heritage assets from the outset ensuring that no designated heritage assets will be subject to direct physical impacts arising from the proposed East Anglia TWO project (section 24.3.3, 24.6 and 24.7 of ES Chapter 24 Archaeology and Cultural Heritage).</p>
Section 5.8.13	<p><i>The IPC should take into account the desirability of sustaining and, where appropriate, enhancing the significance of heritage assets, the contribution of their settings and the positive contribution they can make to sustainable communities and economic vitality... This can be by virtue of:</i></p>	<p>As described above, the proposed onshore development area has undergone an extensive site selection and design process to avoid direct physical impacts on designated heritage assets from the outset ensuring that no designated heritage assets will be subject to direct physical impacts arising from the proposed East Anglia</p>

Policy	Summary	Compliance
	<ul style="list-style-type: none"> • <i>Heritage assets having an influence on the character of the environment and an area's sense of place;</i> • <i>Heritage assets having a potential to be a catalyst for regeneration in an area, particularly through leisure, tourism and economic development;</i> • <i>Heritage assets being a stimulus to inspire new development of imaginative and high quality design;</i> • <i>The re-use of existing fabric, minimising waste; and</i> • <i>The mixed and flexible patterns of land use in historic areas that are likely to be, and remain, sustainable.</i> <p><i>...The IPC should take into account the desirability of new development making a positive contribution to the character and local distinctiveness of the historic environment. The consideration of design should include scale, height, massing, alignment, materials and use. The IPC should have regard to any relevant local authority development plans or local impact report on the proposed development in respect of the factors set out [above].</i></p>	<p>TWO project (section 24.3.3, 24.6 and 24.7 of ES Chapter 24 Archaeology and Cultural Heritage).</p> <p>Recorded heritage assets (i.e. potential sub-surface archaeological remains recorded by the Historic Environmental Record (HER) or identified as part of the aerial photographic and LiDAR data assessment) and the initial interpretation of the archaeological geophysical survey (ES Appendix 24.4 East Anglia TWO and East Anglia ONE North Offshore Windfarms Proposed Onshore Cable Corridor and Substation Sites) have been, and will continue to be fed into ongoing route refinement post-consent considerations.</p> <p>Residual impacts range from minor adverse to no impact (section 24.10). No significant adverse impacts are predicted.</p> <p>Information acquired from any archaeological site or feature subject to direct impact will be retained and made publicly available following proportionate mitigation approaches, recorded in the HER and considered as part of the baseline resource. Development also presents opportunities to develop and further enhance the archaeological record.</p>
Section 5.8.14	<p><i>'There should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be. Once lost heritage assets cannot be replaced and their loss has a cultural, environmental, economic and social impact. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. Loss affecting any designated heritage asset should require clear and convincing justification. Substantial harm to or</i></p>	<p>Please refer to response to EN-1 Section 5.8.11 in this compliance table with regards to designated heritage assets in the study area and their significance.</p> <p>The proposed onshore development area has undergone an extensive site selection process to avoid direct physical impacts on designated heritage assets from the outset ensuring that no designated heritage assets will be subject to direct physical impacts arising from the proposed East Anglia TWO project (sections</p>

Policy	Summary	Compliance
	<i>loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated assets of the highest significance, including Scheduled Monuments; registered battlefields; grade I and II* listed buildings; grade I and II* registered parks and gardens; and World Heritage Sites, should be wholly exceptional.'</i>	<p>24.3.3, 24.6 and 24.7 of ES Chapter 24 Archaeology and Cultural Heritage).</p> <p>The impacts specified in the response above to EN-1 Section 5.8.13 are assessed as either minor adverse or no impact after mitigation, therefore there will not be any substantial harm to or loss of designated assets of the highest significance.</p> <p>A WSI (Onshore) (document reference 8.5) has been submitted with this DCO application. This outlines the commitments to undertaking initial informative stages (and subsequent further stages) of mitigation post consent, including further surveys if required. This will be finalised and will form the WSI (Onshore) as secured under the requirements of the draft DCO.</p>
Section 5.8.15	<i>Any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development, recognising that the greater the harm to the significance of the heritage asset the greater the justification will be needed for any loss. Where the application will lead to substantial harm to or total loss of significance of a designated heritage asset the IPC should refuse consent unless it can be demonstrated that the substantial harm to or loss of significance is necessary in order to deliver substantial public benefits that outweigh that loss or harm.</i>	Please see response above to EN-1 Section 5.8.11 in this compliance table regarding impacts on significance of designated heritage assets.
Section 5.8.16	<i>'Not all elements of a World Heritage Site or Conservation Area will necessarily contribute to its significance. The policies set out in paragraphs 5.8.11 to 5.8.15 above apply to those elements that do contribute to the significance. When considering proposals, the IPC should take into account the relative significance of the</i>	There are no examples of World Heritage Sites or Conservation Areas of relevance to the proposed East Anglia TWO project.

Policy	Summary	Compliance
	<p><i>element affected and its contribution to the significance of the World Heritage Site or Conservation Area as a whole.'</i></p>	
<p>Section 5.8.17</p>	<p><i>'Where loss of significance of any heritage asset is justified on the merits of the new development, the IPC [now the Examining Authority and SoS] should consider imposing a condition on the consent or requiring the applicant to enter into an obligation that will prevent the loss occurring until it is reasonably certain that the relevant part of the development is to proceed.'</i></p>	<p>Please refer to response to EN-1 Section 5.8.13 in this compliance table regarding potential impacts to heritage assets.</p> <p>The settings assessment (ES Appendix 24.3 East Anglia TWO and East Anglia ONE NORTH Offshore Windfarms: Onshore Archaeology and Cultural Heritage Desk Based Assessment) identified eight designated heritage assets where there is potential for heritage significance to be materially affected by change in their settings due to the East Anglia TWO project. The two areas where this may be the case are:</p> <ul style="list-style-type: none"> • A section of the cable route in an area of woodland immediately to the south of Aldringham Court (a Grade II Listed Building); and • Land in the vicinity of the proposed substations at Friston <p>The assets which could be potentially affected in these two areas are:</p> <ul style="list-style-type: none"> • Little Moor Farm (1215743, Grade II). • High House Farm (1216049, Grade II). • Friston House (1216066, Grade II). • Woodside Farmhouse (1215744, Grade II). • Church of St Mary, Friston (1287864, Grade II*). • Friston War Memorial (1435814, Grade II). • Friston Post Mill (1215741, Grade II*). • Aldringham Court (1393143, Grade II).

Policy	Summary	Compliance
		<p>For the eight assets (ES Appendix 24.7, Figure 1) in the vicinity of the onshore substation at Friston it is more the presence of the onshore substation and National Grid substation, rather than the proposed permanent overhead realignment works that would lead to adverse impact on significance.</p> <p>Section 24.6.2.1 of ES Chapter 24 Archaeology and Cultural Heritage summarises the impacts on the eight assets. In all cases, both with and without mitigation, any adverse impacts on significance are assessed as moderate adverse, based on a magnitude of medium adverse. Therefore, the impacts on these assets is considered to represent less than substantial harm for the purposes of the NPS.</p>
Section 5.8.18	<p><i>When considering applications for development affecting the setting of a designated heritage asset, the IPC should treat favourably applications that preserve those elements of the setting that make a positive contribution to, or better reveal the significance of, the asset. When considering applications that do not do this, the IPC should weigh any negative effects against the wider benefits of the application. The greater the negative impact on the significance of the designated heritage asset, the greater the benefits that will be needed to justify approval.</i></p>	<p>Measures to preserve those elements of the setting that make a positive contribution to, or better reveal the significance of, a heritage asset are included in section 24.3.3, 24.6 and 24.7 of ES Chapter 24 Archaeology and Cultural Heritage.</p> <p>The response to EN-1 Section 5.8.17 above lists eight designated sites which could be potentially affected. Section 24.6.2.1 summarises the impacts on these eight assets. In all cases, both with and without mitigation, any adverse impacts on significance are considered to represent less than substantial harm for the purposes of the NPS, i.e. no greater than a medium adverse magnitude of impact and moderate adverse significance of effect.</p> <p>Data gathering exercises undertaken for the purpose of the project will enhance public understanding by adding to the archaeological record (e.g. through the accumulation of publicly available data). For example, previously unrecorded sites / features identified as a result of survey / evaluation works undertaken for the project will be</p>

Policy	Summary	Compliance
		<p>added to the HER. The Outline WSI (Onshore) (document reference 8.5) also includes a commitment for the completion of studies to professional archaeological standards, the results of which must be made publicly available. This is secured under the requirements of the draft DCO.</p>
EN-3		
Section 2.6.144	<p><i>The IPC should be satisfied that offshore wind farms and associated infrastructure have been designed sensitively, taking into account known heritage assets and their status, for example features designated as Protected Wrecks.</i></p>	<p>Offshore infrastructure and its assessment is covered in Table 6.11 Marine Archaeology and Cultural Heritage Policy Compliance.</p> <p>The siting of the associated infrastructure of the proposed East Anglia TWO project has been influenced by desk based studies of the historic environment within the study areas. The desk study included the results of geotechnical and geophysical surveys and assessments undertaken presented in ES Appendix 24.3 East Anglia TWO and East Anglia ONE North Offshore Windfarms: Onshore Archaeology and Cultural Heritage Desk Based Assessment and 24.4 East Anglia ONE North/TWO Offshore Windfarms Proposed Onshore Cable Corridor and Substation Sites Geophysical Survey</p> <p>Known designated heritage assets and non-designated heritage assets are summarised in sections 24.5.2 and 24.5.3 respectively of ES Chapter 24 Archaeology and Cultural Heritage.</p> <p>Site selection has also been guided by consultation with statutory consultees, which was undertaken in the early stages of the development, and is presented in ES section 24.2, in Chapter 24 Archaeology and Cultural Heritage and ES Appendix 24.1 Consultation Responses.</p>

Policy	Summary	Compliance
National Policy Planning Framework		
<p>Section 16 Paragraph 189</p>	<p><i>In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.</i></p>	<p>Designated heritage assets, their significance and contribution made by their setting are described in response to EN-1 Section 5.8.15 in this compliance table. The indicative criteria for determining heritage importance is outlined in section 24.4.3.1 of ES Chapter 24 Archaeology and Cultural Heritage, which is based on perceived international/national importance, regional importance and local importance.</p> <p>Historic England have been consulted throughout the pre-application consultation. A summary of engagement with Historic England, among other stakeholders with sufficient expertise is provided in ES Appendix 24.1 Consultation Responses. A desk based assessment is provided in Appendix 24.3 East Anglia TWO and East Anglia ONE North Offshore Windfarms: Onshore Archaeology and Cultural Heritage Desk Based Assessment and an assessment of Geophysical data in Appendix 24.4 East Anglia One North/TWO Offshore Windfarms Proposed Onshore Cable Corridor And Substation Sites Geophysical Survey.</p> <p>An Outline WSI (Onshore) (document reference 8.5) has been submitted with this DCO application. This outlines commitments to undertaking initial informative stages (and subsequent further stages) of mitigation post consent, including further surveys if required. This will be finalised and will form the WSI (Onshore) as secured under the requirements of the draft DCO.</p>

Policy	Summary	Compliance
Section 16 Paragraph 190	<i>Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.</i>	<p>Known designated heritage assets and non-designated heritage assets are summarised in sections 24.5.2 and 24.5.3 respectively of ES Chapter 24 Archaeology and Cultural Heritage.</p> <p>Please refer to EN-1 Section 5.8.11 in this compliance table regarding impacts on significance of designated heritage assets.</p> <p>Impacts to heritage assets as a result of the project range between no impact to minor adverse (section 24.10 of ES Chapter 24 Onshore Archaeology and Cultural Heritage), as such the project will not lead to substantial conflict with a designated heritage asset. This has been achieved by the mitigation measures described in section 24.3.3 such as avoidance, micro-siting and route refinement.</p>
Section 16 Paragraph 192	<p><i>In determining applications, local planning authorities should take account of:</i></p> <p><i>a) the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;</i></p> <p><i>b) the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and</i></p> <p><i>c) the desirability of new development making a positive contribution to local character and distinctiveness.</i></p>	<p>a) The heritage assets listed in response to EN-1 Section 5.8.11 in this compliance table are deemed to be assets of high heritage significance with perceived national importance (section 24.5.2.4 of ES Chapter 24 Archaeology and Cultural Heritage). Given that there will be no significant adverse impacts on the identified heritage features, it can be concluded that they will be sustained and conserved.</p> <p>b) The positive contribution of the heritage assets referenced above is recognised and described further in ES Appendix 24.3 East Anglia TWO and East Anglia ONE North Offshore Windfarms: Onshore Archaeology and Cultural Heritage Desk Based Assessment.</p> <p>c) Previously unrecorded sites / features identified in pre-construction assessments and surveys will be added to the HER, which will help facilitate an enhanced understanding about the</p>

Policy	Summary	Compliance
		<p>heritage asset and its conservation. The Outline WSI (Onshore) (document reference 8.5) includes a commitment for the completion of studies to professional archaeological standards, the results of which must be made publicly available.</p>
<p>Section 16 Paragraph 193</p>	<p><i>When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.</i></p>	<p>Section 24.4 of ES Chapter 24 Onshore Archaeology and Cultural Heritage details the assessment methodology, which prescribes how weighting is established for impacts to heritage assets and their significance. The indicative criteria for determining heritage importance is outlined in section 24.4.3.1, which is based on perceived international/national importance, regional importance and local importance. Impacts on heritage assets and their significance are outlined in response to EN-1 Section 5.8.13 in this compliance table.</p> <p>As previously described, any significance rating of minor adverse equates to a small change in receptor (asset) condition, which may be raised as local issues but are unlikely to be important in the decision-making process. Possible scenario: Harm to a designated or non-designated heritage asset that can be adequately compensated through the implementation of a programme of industry standard mitigation measures.</p>
<p>Section 16 paragraph 194</p>	<p><i>Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification.</i></p> <p><i>Substantial harm to or loss of:</i></p> <p><i>a) grade II listed buildings, or grade II registered parks or gardens, should be exceptional;</i></p>	<p>The proposed onshore development area will avoid physical impacts upon known (e.g. previously listed / scheduled) designated heritage assets and as such, no direct physical impacts are anticipated to occur to designated heritage assets (section 24.5.2 of ES Chapter 24 Onshore Archaeology and Cultural Heritage). Potential impacts to the setting of listed buildings are provided in section 24.6.1.3. Due to construction activities being temporary</p>

Policy	Summary	Compliance
	<p><i>b) assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.</i></p>	<p>and of sufficiently short duration, they will not give rise to material harm. Therefore, no impact has been concluded.</p> <p>As summarised in section 16.10 of ES Chapter 16 Marine Archaeology and 24.10 of ES Chapter 24 Archaeology and Cultural Heritage, there will be no substantial loss or harm to any heritage assets. No significant adverse impacts are predicted. An Outline WSI (Onshore) (document reference 8.5) has been prepared which sets out The Applicants commitment to mitigation and additional survey requirements.</p>
<p>Section 16 Paragraph 195</p>	<p><i>Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:</i></p> <p><i>a) the nature of the heritage asset prevents all reasonable uses of the site; and</i></p> <p><i>b) no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and</i></p> <p><i>c) conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and</i></p> <p><i>d) the harm or loss is outweighed by the benefit of bringing the site back into use</i></p>	<p>As outlined in response to EN-1 Section 5.8.13 in this compliance table, no substantial harm or loss of significance to any of the designated assets identified in the response to EN-1 section 5.8.11 in this compliance table are predicted.</p>

Policy	Summary	Compliance
Section 16 Paragraph 196	<i>Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.</i>	As per EN-1 Section 5.8.13 , impacts to heritage assets range from no impact to minor adverse. The public benefits of the proposal are discussed in detail in Need and the Case for the Development .
Section 16 Paragraph 197	<i>The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.</i>	ES Figure 24.3 shows non-designated heritage sites in the proposed East Anglia TWO development area. Non-designated heritage assets have been considered in parallel with designated assets and are described in section 24.5.3 of ES Chapter 24 Archaeology and Cultural Heritage). There are 80 non-designated heritage assets within the proposed onshore development area, comprising 34 heritage assets recorded by the HER and / or NRHE and 46 previously unrecorded heritage assets. No significant adverse impacts are predicted as specified in EN-1 Section 5.8.13 .
Section 16 Paragraph 198	<i>Local planning authorities should not permit the loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred.</i>	No substantial harm or loss of significance to any heritage assets are predicted as per EN-1 Section 5.8.13 .
Section 16 Paragraph 199	<i>Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.</i>	Data gathering exercises undertaken for the purpose of the project will enhance public understanding by adding to the archaeological record (e.g. through the accumulation of publicly available data). For example, previously unrecorded sites / features identified as a result of survey/evaluation works undertaken for the project will be added to the HER. The Outline WSI (Onshore) (document reference 8.5) also includes a commitment for the completion of studies to professional archaeological standards, the results of

Policy	Summary	Compliance
		which must be made publicly available. This is secured under the requirements of the draft DCO.
Section 16 Paragraph 200	<i>Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.</i>	There are no Conservation Areas or World Heritage sites within the proposed East Anglia TWO onshore development site. With regards to setting of heritage assets, please see demonstration of compliance to National Planning Policy Framework, Section 16, paragraph 192 in this compliance table.
Section 16 Paragraph 201	<i>Not all elements of a Conservation Area or World Heritage Site will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph or less than substantial harm under paragraph, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.</i>	As above, there are no Conservation Areas or World Heritage sites within the proposed East Anglia TWO onshore development area.
Section 16 Paragraph 202	<i>Local planning authorities should assess whether the benefits of a proposal for enabling development, which would otherwise conflict with planning policies but which would secure the future conservation of a heritage asset, outweigh the disbenefits of departing from those policies.</i>	Departing from other planning policies will not be required in order to secure the future conservation of any heritage assets because as per response to EN-1 Section 5.8.13 , there will be no significant adverse impacts. Onshore assets will be recorded and protected as outlined in the Outline WSI (Onshore) (document reference 8.5).
Suffolk Coastal District Council Core Strategy and Development Management Policy		
Strategic Policy SP1 –	<i>Conserve and enhance areas of natural historic and built environment.</i>	Historic England were consulted at each consultation phase and their views were factored in to the site selection process (see Table 4.2 of ES Chapter 4 Site Selection Process and Consideration

Policy	Summary	Compliance
Sustainable Development		of Alternatives). Potential impacts on the natural historic and built environment are described in section 16.6 of ES Chapter 16 Marine Archaeology and Cultural Heritage . Project embedded mitigation is detailed in section 16.3.3 . Consideration (and enhancement) has been given to existing habitats and landscape features including ancient woodland and historic hedgerows, namely new planting of hedgerow, shelterbelts and woodlands (ES Chapter 22 Onshore Ecology section 22.3.3).
SCDC Local Development Plan		
SCLP 11.3 – Historic Environment	<p><i>The Council will work with partners, developers and the community to conserve and enhance the historic environment by:</i></p> <ul style="list-style-type: none"> <i>Requiring development proposals to conserve and enhance the historic environment, including through the removal of existing features that detract from the historic environment and through the provision of interpretation where appropriate; and</i> <i>Applying the policies of the National Planning Policy Framework in respect of designated and non-designated heritage assets.</i> 	<p>Consultation has been undertaken via ETG with key stakeholders such as Suffolk County Council, Suffolk Coastal District Council and Historic England (section 24.2 of ES Chapter 24 Archaeology and Cultural Heritage).</p> <p>Please refer to response to National Planning Policy Framework, Section 16 Paragraph 192 for ways in which The Applicant and the community can conserve and enhance the historic environment. An Outline WSI (Onshore) (document reference 8.5) has been prepared which sets out The Applicants commitment to mitigation and additional survey requirements. This could feasibly involve the removal of a feature that detracts from the historic environment, if practicable.</p> <p>Compliance with the National Planning Policy Framework has been provided in the section above.</p>
SCLP 11.6 – Archaeology	<i>An Archaeological Assessment must be included with any planning application affecting areas of known or suspected archaeological</i>	An archaeological assessment is included in Appendix 24.3 East Anglia TWO and East Anglia ONE North Offshore Windfarms: Onshore Archaeology and Cultural Heritage Desk Based Assessment . This underpins the existing baseline and assessment

Policy	Summary	Compliance
	<p><i>importance to ensure that provision is made for the preservation of important archaeological remains.</i></p> <p><i>Where proposals affect archaeological sites, preference will be given to preservation in situ unless it can be shown that recording of remains, assessment, analysis report and/or deposition of archive is more appropriate.</i></p>	<p>of impacts in sections 24.5, 24.6 and 24.7 of ES Chapter 24 Archaeology and Cultural Heritage respectively.</p> <p>Please refer to response to EN-1 Section 5.8.11 for assessment of potential impacts. No significant adverse impacts are predicted.</p> <p>An Outline WSI Onshore (document reference 8.5) has been prepared as secured under the requirements of the draft DCO which sets out The Applicants commitment to mitigation and additional survey requirements. Archaeological considerations thereby inform and play an active role in ongoing design decisions, enacting preservation in situ and ensuring that opportunities to reduce impacts on any obvious anomalies / features / sites identified to date are explored, wherever possible.</p>
WDC Local Plan		
<p>WLP8.37 Historic Environment</p>	<p><i>Proposals for development should conserve or enhance Heritage Assets and their settings.</i></p> <p><i>All development proposals which have the potential to impact on Heritage Assets or their settings should be supported by a Heritage Impact Assessment prepared by an individual with relevant expertise. Pre-application consultation with the Council is encouraged to ensure the scope and detail of a Heritage Impact Assessment is sufficient. The level of detail of a Heritage Impact Assessment should be proportionate to the scheme proposed and the number and significance of heritage assets affected.</i></p> <p><i>Proposals should take into account guidance included in the Built Heritage and Design Supplementary Planning Document.</i></p>	<p>All identified heritage assets within the proposed East Anglia TWO onshore development area will be conserved. Please see response to National Planning Policy Framework, Section 16 Paragraph 192 for ways in which The Applicant and the community can conserve and enhance the historic environment.</p> <p>A full archaeological assessment is included in Appendix 24.3 East Anglia TWO and East Anglia ONE North Offshore Windfarms: Onshore Archaeology and Cultural Heritage Desk Based Assessment. This underpins the existing baseline and assessment of impacts in sections 24.5, 24.6 and 24.7 of ES Chapter 24 Archaeology and Cultural Heritage respectively. The DBA and ES was conducted in accordance with industry guidance (section 24.4.1.2) by a suitably qualified consultant. All potential impacts to designated and non-designated heritage assets, above</p>

Policy	Summary	Compliance
		and below ground have been summarised in response to EN-1 Section 5.8.13 Consultation has been undertaken via ETG with key stakeholders such as Suffolk County Council, Suffolk Coastal District Council and Historic England (section 24.2 of ES Chapter 24 Archaeology and Cultural Heritage).
WLP8.40 Archaeology	<i>An archaeological assessment must be included with any planning application affecting areas of known or suspected archaeological importance to ensure that provision is made for the preservation of important archaeological remains.</i> <i>Development should preserve and record archaeological remains. Where proposals affect archaeological sites, preference will be given to preservation in situ unless it can be shown that recording of remains, assessment, analysis report and deposition of archive is more appropriate.</i>	Please refer to response above to SCDC Local Development Plan, SCLP 11.6 Archaeology .

6.20 Noise and Vibration

320. Compliance with policies relating to noise and vibration are presented in **Table 6.20**. Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 25 Noise and Vibration**. Where other chapters are relevant these have also been signposted.
321. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.20** below in relation to Noise and Vibration.

Table 6.20 Noise and Vibration Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.11.8	<i>The project should demonstrate good design through selection of the quietest cost-effective plant available; containment of noise within buildings wherever possible; optimisation of plant layout to minimise noise emissions; and, where possible, the use of landscaping, bunds or noise barriers to reduce noise transmission.</i>	<p>With respect to good design, the location of onshore infrastructure avoids built up areas where possible. The site selection has been refined based on consultation with local stakeholders outlined in section 4.5 of ES Chapter 4 Site Selection and Assessment of Alternatives.</p> <p>Embedded mitigation measures (section 25.3.3 of ES Chapter 25 Noise and Vibration) will be in place for onshore electrical transmission works, landfall, onshore cable route and substation construction. These measures include:</p> <ul style="list-style-type: none"> • A Noise and Vibration Management Plan will be submitted to and approved by the regulator as secured under the requirements of the draft DCO. This forms part of the CoCP which will ensure: <ul style="list-style-type: none"> ○ The use of modern, fit for purpose, well maintained plant and equipment. Plant and vehicles to be fitted with mufflers / silencers. Doors and covers housing noise emitting plant will be kept closed when machines are in use; ○ Management of construction operating hours; ○ Use of screens and noise barriers / acoustic screens; ○ Ensuring engines are switched off when machines are idle; and

Policy	Summary	Compliance
		<ul style="list-style-type: none"> ○ Regular communication with site neighbours to inform them of the construction schedule, and when noisy activities are likely to occur. <p>An Outline CoCP (document reference 8.1) has been submitted with this DCO application.</p>
Section 5.11.9	<p><i>The IPC should not grant development consent unless it is satisfied that the proposals will meet the following aims:</i></p> <ul style="list-style-type: none"> • <i>avoid significant adverse impacts on health and quality of life from noise;</i> • <i>mitigate and minimise other adverse impacts on health and quality of life from noise; and</i> • <i>where possible, contribute to improvements to health and quality of life through the effective management and control of noise.</i> 	<p>Residual impacts arising from noise and vibration are not predicted to be significant. They range from no impact to minor adverse once mitigation is applied (section 25.10 of ES Chapter 25 Noise and Vibration).</p> <p>Section 27.6.1.1 of ES Chapter 27 Human Health considers noise effects and health outcomes. Population groups considered most relevant to the assessment are the population near landfall, along the onshore cable route and near the onshore substation and National Grid infrastructure. Within these populations, children and young people, older people and people with existing poor health are considered to be most vulnerable. Effects are assessed to be not significant to human health.</p> <p>Measures to mitigate noise and vibration are described above in response to EN-1 Section 5.11.8.</p> <p>The mitigation measures described in response to EN-1 Section 5.11.8 will mean that residual impacts on key health and community assets outlined in section 27.6.1.1.3 will not be significant. Quality of life of those associated with, and using these facilities, will therefore not be undermined.</p>

Policy	Summary	Compliance
Section 5.11.10	<i>When preparing the development consent order, the IPC should consider including measurable requirements or specifying the mitigation measures to be put in place to ensure that noise levels do not exceed any limits specified in the development consent.</i>	As described in section 25.3.4 of ES Chapter 25 Noise and Vibration , the outline management plan contains the key principles that outline the framework for the monitoring which will take place to measure the effectiveness of the mitigation measures.
EN-5		
2.9.10	<i>The IPC should ensure that relevant assessment methodologies have been used in the evidence presented to them, and that the appropriate mitigation options have been considered and adopted. Where the applicant can demonstrate that appropriate mitigation measures will be put in place, the residual noise impacts are unlikely to be significant.</i>	<p>Section 25.4 of ES Chapter 25 Noise and Vibration details the assessment methodology used in the ES. The latest policy guidance and data sources have been used to form a robust assessment. Consultation was held with an ETG comprising Suffolk County Council, Suffolk Coastal and Waveney District Council and the Environment Agency. The baseline, study area and assessment methodology was agreed. For further details please refer to section 25.2 and ES Appendix 25.1 Consultation Responses.</p> <p>Details of embedded mitigation are provided in section 25.3.3. Additional mitigation is described in section 25.6. As summarised in section 25.10, residual impacts range from no impact to minor adverse. The construction phase noise and vibration management plan will be submitted to the relevant planning authority for approval and forms part of the CoCP as secured under the requirements of the draft DCO. Written details that provide for control of noise during the operational phase will be approved by the relevant planning authority as secured under the requirements of the draft DCO. An Outline CoCP (document reference 8.1) has been submitted with this DCO application.</p>

Policy	Summary	Compliance
2.9.11	<i>Consequently, noise from overhead lines is unlikely to lead to the IPC refusing an application, but it may need to consider the use of appropriate requirements to ensure noise is minimised as far as possible.</i>	Section 25.3.2.1 of ES Chapter 25 Noise and Vibration describes the operational noise level of the overhead line as below the threshold where meaningful noise prediction can be undertaken, it is therefore scoped out of the assessment.
National Planning Policy Framework		
Section 15 Paragraph 170	<i>Planning policies and decisions should contribute to and enhance the natural and local environment by: e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans.</i>	The significance of noise and vibration impacts to the natural and local environment range from no impact and minor adverse (section 25.10 of ES Chapter 25 Noise and Vibration), as such unacceptable risk from noise pollution is avoided.
Section 15 Paragraph 180	<i>Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should: a) mitigate and reduce to a minimum, potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life; and</i>	The proposed East Anglia TWO project is appropriate for its location considering the likely effects of pollution on health, living conditions (ES Chapter 27 Human Health) and the natural environment (ES Chapters 18-26). As part of good project design, the location of onshore infrastructure avoids built up areas where possible. The site selection has been refined based on consultation with local stakeholders outlined in section 4.5 of ES Chapter 4 Site Selection and Assessment of Alternatives .

Policy	Summary	Compliance
	<i>b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason;</i>	<p>Mitigation to reduce noise impacts and impacts on health and quality of life is described in response to EN-1 sections 5.11.8 and 5.11.9 in this compliance table.</p> <p>As part of good project design, the onshore substation and National Grid substation have been sited outside of the Suffolk Coast and Heaths AONB, in addition to Hundred River Valley Special Landscape Area which have both remained relatively undisturbed by noise. Any overlaps with the cable corridor area have been minimised as far as possible (ES Figure 29.3). Noise disturbance to these areas will therefore be minimised.</p>
Noise Policy Statement for England		
Paragraph 1.7	<p><i>“Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:</i></p> <p><i>Avoid significant adverse impacts on health and quality of life;</i></p> <p><i>Mitigate and minimise adverse impacts on health and quality of life; and</i></p> <p><i>Where possible, contribute to the improvement of health and quality of life.”</i></p>	<p>Impacts on local residential receptors are addressed in section 25.6 of ES Chapter 25 Noise and Vibration. Impacts of increased noise and vibration are presented in section 25.10, which range from no impact to minor adverse. Health outcomes are also assessed in section 27.6.1.1 of ES Chapter 27 Human Health which are assessed as not significant.</p> <p>Mitigation to reduce noise impacts and impacts on health and quality of life is described in response to EN-1 sections 5.11.8 and 5.11.9 in this compliance table.</p>
Paragraph 2.24	<p><i>“...all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life whilst also taking into consideration the guiding principles of sustainable development. This does not mean that such effects cannot occur.”</i></p>	<p>As above, please refer to mitigation measures outlined in response to EN-1 sections 5.11.8 and 5.11.9 in this compliance table.</p>

Policy	Summary	Compliance
Suffolk Coastal Local Plan		
DM23: Residential Amenity	<p><i>When considering the impact of new development on residential amenity, the Council will have regard to the following:...</i></p> <p><i>(d) noise and disturbance;</i></p> <p><i>Development will be acceptable where it would not cause an unacceptable loss of amenity to adjoining or future occupiers of the development.</i></p>	<p>Impacts of noise on residential amenity are addressed in section 25.8 of ES Chapter 25 Noise and Vibration. Impacts of increased noise and vibration are presented in section 25.10, which range from no impact to minor adverse and will therefore be acceptable as it would not cause an unacceptable loss of amenity to adjoining or future occupiers of the development.</p>

6.21 Traffic and Transport

322. Compliance with policies relating to traffic and transport are presented in **Table 6.21**. Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 26 Traffic and Transport**. Where other chapters are relevant these have also been signposted.
323. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.21** below in relation to Traffic and Transport.

Table 6.21 Traffic and Transport Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.13.6	<p><i>A new energy NSIP may give rise to substantial impacts on the surrounding transport infrastructure and the IPC should therefore ensure that the applicant has sought to mitigate these impacts, including during the construction phase of the development. Where the proposed mitigation measures are insufficient to reduce the impact on the transport infrastructure to acceptable levels, the IPC</i></p>	<p>The impacts relating to traffic and transport of the proposed East Anglia TWO project include reduced highway safety, pedestrian amenity, driver delays and severance. Sections 26.6 and 26.7 ES Chapter 26 Traffic and Transport contain an assessment of the Project's impact on the transport network. Impacts range from negligible to minor as stated in section 26.10.</p>

Policy	Summary	Compliance
	<p><i>should consider requirements to mitigate adverse impacts on transport networks arising from the development, as set out below. Applicants may also be willing to enter into planning obligations for funding infrastructure and otherwise mitigating adverse impacts.</i></p>	<p>Embedded mitigation is described in section 26.3.3. This includes an access strategy whereby routes are selected to reduce the impact of HGV traffic upon the most sensitive communities. All HGV traffic is required to travel via the A1094 or B1122 from the A12. No HGV traffic is permitted via the B1121 or B1119 or through Leiston, Friston, Sternfield, Benhall-Green or Coldfair Green / Knodishall. 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 Aldeburgh and 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.</p> <p>Additional mitigation measures to improve the transport systems so that they are safe, and impacts are minimised are discussed throughout section 26.6</p> <p>These relate to SCC's scheme to replace of the junction of the A12 and A1094 (section 26.6.1.10.2):</p> <ul style="list-style-type: none"> • A reduction in the posted speed limit in advance of the junction from 50mph to a 40mph; • Provision of enhanced warning signage to better highlight the junction to approaching drivers; and • Provision of 'rumble strips' and associated slow markings, to provide an audible and visual warning of the hazard to approaching drivers.

Policy	Summary	Compliance
		<p>Section 26.6.1.11.4 describes upgrades/additional mitigation to reduce the potentially adverse impacts associated with closing roads to install proposed East Anglia TWO cables.</p> <p>Section 26.6.1.12.2 describes upgrades/additional mitigation associated with articulated HGVs turning from the A1094 to the B1122</p> <p>The requirement to supply the CTMP and Travel Plan is secured under the requirements of the draft DCO. An Outline CTMP (document reference 8.9) and Outline Travel Plan (document reference 8.11) has been submitted with this DCO application.</p>
Section 5.13.7	<p><i>Provided that the applicant is willing to enter into planning obligations or requirements can be imposed to mitigate transport impacts identified in the NATA/WebTAG transport assessment, with attribution of costs calculated in accordance with the Department for Transport's guidance, then development consent should not be withheld, and appropriately limited weight should be applied to residual effects on the surrounding transport infrastructure.</i></p>	<p>In addition to the embedded mitigation in section 26.3.3 of ES Chapter 26 Traffic and Transport, an outline CTMP has been submitted as part of the DCO application (document reference 8.9) which includes:</p> <ul style="list-style-type: none"> • Details of measures to be adopted to ensure that the traffic demand forecasts are not exceeded; • The mitigation measures to be adopted to manage the traffic and transport impacts; • Travel plan measures to manage construction employee movements; and • Details of the proposed access works and traffic management. <p>This has been developed in consultation with key stakeholders as described in section 26.2 and ES Appendix 26.1 Consultation Responses.</p>

Policy	Summary	Compliance
		After mitigation is applied, residual impacts range from negligible to minor (section 26.10).
National Planning Policy Framework		
Paragraph 111	<i>...all developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.</i>	An Outline CTMP has been submitted as part of the DCO application (document reference 8.9) which includes details as specific in response provided above. This is supported by the transport assessment provided in sections 26.6 and 26.7 of ES Chapter 26 Traffic and Transport .
SCC		
Local Transport Plan 2011 - 2031	<i>The Council wants to maintain and, over time, improve Suffolk's transport networks, reduce congestion, and improve access to jobs and markets.</i>	Please refer to response to EN-1 Section 5.13.6 of this compliance Table for details on embedded and additional mitigation measures to reduce congestion, improve transport networks and improve access.
SCDC Local Plan - Core Strategy and Development Management Policies		
SP13 – Nuclear Energy (this is considered relevant)	<i>Construction management: Transport issues such as the routing of vehicles during construction, improvements to the road system (including the A12), and use of rail and sea for access all having regard to such factors as residential amenity; and Social issues – local community issues during long construction period and the housing of workers in the local area.”</i>	Management of construction related issues such are included in sections 26.3.3, 26.6 and 26.7 of ES Chapter 26 Traffic and Transport . Please refer to response to EN-1 Section 5.13.6 of this compliance Table which includes measures such as routing HGV traffic via the A1094 or B1122 from the A12. An Outline CTMP (document reference 8.9) has been provided as part of the DCO application. An outline of the CTMP contents is

Policy	Summary	Compliance
		<p>provided above in response to EN-1 Section 5.13.7 of this compliance table.</p> <p>With regard to community issues during the construction period, measures such as adopting car sharing for construction employees will be implemented (section 26.3.3). A target of an average of at least 1.5 employees is proposed and secured through the outline CTMP (document reference 8.9).</p>
DM20 – Travel Plans	<p><i>Proposals for new development that would have significant transport implications should be accompanied by a ‘green travel plan’. It is not necessarily the size of the development that would trigger the need for such a plan but more the nature of the use.</i></p> <p><i>The travel plans should seek to reduce the use of private cars by:</i></p> <ul style="list-style-type: none"> <i>encouraging car sharing;</i> <i>provide links to enable the use of public transport;</i> <i>improve road safety for pedestrians and cyclists; and</i> <p><i>identify any mitigation works to be funded by the developer in conjunction with the proposal, such as improvements of facilities at the nearest transport interchanges.”</i></p>	<p>The Travel Plan is secured under the requirements of the draft DCO. As described above in response to EN-1 Section 5.13.6 of this compliance table, potential impacts include reduced highway safety, pedestrian amenity, driver delays and severance.</p> <p>Road safety associated with the existing issue of drivers right turning from the A12 to A1094 colliding with traffic travelling south on the A12, will be improved by the following measures as described in section 26.6.1.10.2 of ES Chapter 26 Traffic and Transport:</p> <ul style="list-style-type: none"> • Reduction in the posted speed limit in advance of the junction from 50mph to a 40mph. • Provision of enhanced warning signage to better highlight the junction to approaching drivers; and • Provision of ‘rumble strips’ and associated slow markings, to provide an audible and visual warning of the hazard to approaching drivers. <p>A car sharing target of at least 1.5 employees is proposed as per the Outline Travel Plan (document reference 8.11).</p>

Policy	Summary	Compliance
		<p>Severance is assessed as being negligible to minor adverse impact, and as such the project is unlikely to impact on users of public transport. The peak daily change in total traffic flow for all screened links is significantly less than a 30% change in total traffic (section 26.6.1.8 of ES Chapter 26 Traffic and Transport).</p>
Suffolk Coastal Local Plan		
<p>SCLP7.1 - Sustainable Transport</p>	<p><i>Development will be supported where:</i></p> <p><i>It is proportionate in scale to the existing transport network;</i></p> <p><i>The cumulative impact of new development will not create significant adverse impacts on the existing transport network.</i></p> <p><i>Proposals for new development that would have significant transport implications should be accompanied by a Travel Plan. A Travel Plan will be required for proposals for:</i></p> <p><i>A development that when considered cumulatively with other developments, is likely to have an adverse impact on the local community or local road network.</i></p>	<p>With regards to the existing transport network and proportionality, as described above, peak daily change in total traffic flow is significantly less than a 30% change in total traffic. The peak construction traffic flows through sensitive junctions is between 36 and 107 vehicle movements per hour (section 26.6.1.11 of ES Chapter 26 Traffic and Transport) and therefore potential delays to road users has been as assessed as minor adverse.</p> <p>Furthermore section 26.6.1.11.2 considers the infrastructure for diversions in the event of any road closures. Options are available for all cable crossings except for the B1353. Additional mitigation measures are discussed in section 26.6.1.11.4 for the B1353 and minimising disruption. These are:</p> <ul style="list-style-type: none"> • Undertake the road crossing in two stages maintaining one traffic lane in each direction; • Controlling traffic through temporary traffic signal; • Maintaining a safe route for pedestrians through the works area along the B1122;

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • Working with SCC and local stakeholders to agree an appropriate time to undertake the works; • Implementation of advanced signing to assist drivers in finding alternative routes; and • Ensuring that the works are staggered, i.e. not closing a lane on the B1122 at the same time as the B1069. <p>Works are therefore considered proportionate to the existing transport network.</p> <p>Cumulative impacts with East Anglia ONE North range from negligible to minor adverse (section 26.10) and is therefore compliant with this policy.</p> <p>Subsequent to agreeing the CIA approach, EDF Energy have embarked upon a Stage 4 consultation exercise scheduled to run from 18th July to 27th September 2019. The Stage 4 consultation document contains further information on an updated freight management strategy but does not contain sufficient information to facilitate a quantitative assessment for ES Chapter 26 Traffic and Transport.</p> <p>Recognising that Stage 3 information released by EDF Energy is now out of date, a quantitative CIA cannot be provided at this stage as it would be based upon out of date and incorrect information. Therefore, the CIA including Sizewell C presented in</p>

Policy	Summary	Compliance
		<p>ES Chapter 26 Traffic and Transport is qualitative, examining the potential for cumulative impacts.</p> <p>The requirement to supply the CTMP and Travel Plan is secured under the requirements of the draft DCO. An Outline CTMP (document reference 8.9) and Outline Travel Plan (document reference 8.11) has been submitted with this DCO application.</p>
WDC Local Plan		
<p>WLP 8.21– Sustainable transport</p>	<p><i>Development proposals should be designed from the outset to incorporate measures that will encourage people to travel using non-car modes to access home, school, employment, services and facilities.</i></p> <p><i>Development will be supported where:</i></p> <ul style="list-style-type: none"> • <i>It is proportionate in scale to the existing transport network;</i> • <i>It is located close to, and provides safe pedestrian and cycle access to services, facilities and public transport;</i> • <i>It is well integrated into and enhances the existing cycle network including the safe design and layout of new routes and provision of covered, secure cycle parking;</i> • <i>It is well integrated into, protects and enhances the existing pedestrian routes and the public rights of way network;</i> • <i>It reduces conflict between users of the transport network including pedestrians, cyclists, users of mobility vehicles and drivers and does not reduce road safety;</i> • <i>It will improve public transport in the rural areas of the District;</i> 	<p>An Outline Travel Plan has been submitted as part of the DCO application (document reference 8.11) which details the measures which provide for travel by a choice of means other than private car associated with the proposal (section 26.1 of ES Chapter 26 Traffic and Transport). This is supported by the transport assessment provided in sections 26.6 and 26.7. No residual significant adverse impacts on traffic and transport are predicted (section 26.10 of ES Chapter 26 Traffic and Transport). This is also the case for cumulative impacts.</p> <p>The worst-case assumption in the assessments is that no allowance for construction workers will be able to travel by non-car modes (bus, rail, walking and cycling). The reality is that this will not be the case. Please refer the Outline CTMP (document reference 8.9) which applies a hierarchy in line with this policy in encouraging staff to consider means of travel. With respect to car sharing, a target of an average of at least 1.5 employees per car is proposed and secured through the Outline CTMP.</p>

Policy	Summary	Compliance
	<ul style="list-style-type: none"> It includes facilities for charging plug-in and other ultra-low emission vehicles; and The cumulative impact of new development will not create severe impacts on the transport network. 	

6.22 Human Health

324. Compliance with policies relating to human health are presented in **Table 6.22**. Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 27 Human Health**. Where other chapters are relevant these have also been signposted.

325. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.22** below in relation to Human Health.

Table 6.22 Human Health Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 4.13.2	<p><i>As described in the relevant sections of this NPS and in the technology- specific NPSs, where the proposed project has an effect on human beings, the ES should assess these effects for each element of the project, identifying any adverse health impacts, and identifying measures to avoid, reduce or compensate for these impacts as appropriate. The impacts of more than one development may affect people simultaneously, so the applicant and the IPC should consider the cumulative impact on health.</i></p>	<p>Effects on human beings are considered in section 27.6 of ES Chapter 27 Human Health. Measures to avoid, reduce or compensate for health impacts are included in sections 27.3.4 and 27.6. Human Health impacts range from no effect to not significant for both the general and vulnerable population therefore the project is compliant with this policy.</p> <p>Embedded mitigation is discussed in section 27.3.4. Careful site selection has avoided proximity to residential dwellings and minimises impacts to local residents in relation to access to services and road usage, including footpath closures. Use of</p>

Policy	Summary	Compliance
		<p>relevant best practice and techniques (including pollution prevention) to avoid or reduce impacts associated with Water and Sediment Quality, Ground Conditions, Air Quality, Water Resources and Flood Risk, Land Use, Noise and Vibration, Traffic and Transport and Landscape and Visual Impact Assessment will be implemented. Consideration of these topics is provided throughout these compliance tables.</p> <p>Cumulative impacts with the proposed East Anglia ONE North project and other developments are set out in section 27.7. No significant increases in effects or adverse impacts are predicted in the cumulative assessment.</p>
Section 4.13.3	<p><i>The direct impacts on health may include increased traffic, air, or water pollution, dust, odour, hazardous waste and substances, noise, exposure to radiation, and increases in pests.</i></p>	<p>Direct effects of increased traffic are considered in ES Chapter 26 Traffic and Transport. Potential health effects due to increased traffic are considered in section 27.6.1.5 of ES Chapter 27 Human Health. Increased traffic impacts are assessed as not significant for both general population and vulnerable groups (section 27.6.1.5.6).</p> <p>Air quality impacts are considered in section 27.6.1.2 of ES Chapter 27 Human Health, and ES Chapter 19 Air Quality. Impacts are assessed as not significant for the general population and for vulnerable groups (section 27.6.1.2.6 of ES Chapter 27 Human Health).</p> <p>Direct effects on health due to increased hazardous waste and substances, or increased water pollution are considered in:</p> <ul style="list-style-type: none"> • Section 8.6.1.5 of ES Chapter 8 Water and Sediment Quality;

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • Section 18.6.1.1 of ES Chapter 18 Ground Conditions and Contamination; and • Section 20.6.1.3 and 20.6.1.4 of ES Chapter 20 Water Resources and Flood Risk; <p>Potential health effects from ground or water contamination effects are considered in section 27.3.1.2 of ES Chapter 27 Human Health. Impacts are predicted as not significant for the general population and for vulnerable groups.</p> <p>Dust generated during construction, and cumulatively with other projects is assessed in section 19.6 of ES Chapter 19 Air Quality. The impacts are summarised as not significant in section 19.10.</p> <p>Noise impacts are included in sections 27.6.1.1 and 27.6.3.1 in Chapter 27 Human Health, and in Chapter 25 Noise and Vibration. Impacts are summarised in section 27.8 of ES Chapter 27 Human Health and are assessed as not significant to the general and vulnerable population.</p> <p>The direct impacts on human health such as increased traffic, air, or water pollution, dust, odour, hazardous waste and substances, noise, exposure to radiation, and increases in pests have been assessed as above and therefore this project is compliant with this policy.</p>
4.13.4	<p><i>New energy infrastructure may also affect the composition, size and proximity of the local population, and in doing so have indirect health impacts, for example if it in some way affects access to key public services, transport or the use of open space for recreation and physical activity.</i></p>	<p>Effects on the composition, size and proximity of the local population are considered in ES Chapter 30 Tourism, Recreation and Socio-economics. The site selection procedure has avoided recreational green space and minimised impacts to local residents in relation to access to</p>

Policy	Summary	Compliance
		<p>services and road usage, including footpath closures (section 30.3.3.2). The Applicant's commitment to using HDD removes impacts to the coastal path and beach at Thorpeness. Impacts to Thorpeness and Sizewell beach would therefore be limited to indirect impact during drilling. A public rights of way (PRoW) strategy is secured under the requirements of the draft DCO, which aims to reduce construction phase impacts upon PRoW.</p> <p>Potential indirect health impacts are addressed in section 27.6.1.4 of ES Chapter 27 Human Health and are assessed as not significant.</p>
EN-5		
Section 2.10.9	<p><i>Government has developed with the electricity industry a Code of Practice, "Power Lines: Demonstrating compliance with EMF public exposure guidelines – a voluntary Code of Practice", published in February 2011 that specifies the evidence acceptable to show compliance with ICNIRP (1998) in terms of the EU Recommendation. Before granting consent to an overhead line application, the IPC should satisfy itself that the proposal is in accordance with the guidelines, considering the evidence provided by the applicant and any other relevant evidence. It may also need to take expert advice from the Department of Health.</i></p>	<p>The impact of electromagnetic fields is discussed in sections 27.5.8 and 27.6.3.2 of ES Chapter 27 Human Health.</p> <p>The International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998 guidance is recognised and described throughout section 27.4.1.3.1. The Applicant's policy is only to design and install equipment that is compliant with the relevant exposure limits. To ensure this, all of the equipment for the proposed East Anglia TWO project capable of producing EMFs will be assessed in accordance with the provisions of the Government's Code of Practice on Compliance, which is compliant with ICNIRP 1998 (section 27.6.3.2.3).</p> <p>The population groups relevant to this assessment, due to either proximity or other sensitivity are (as defined in section 27.3.1.2):</p>

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • The population near the onshore substation (site-specific); and • The population along the cable route including the following vulnerable groups: • Children and young people; • Older people; • People with existing poor health (physical and mental health); and • People living in deprivation, including those on low incomes. <p>Based on the methods described in section 27.4.3.3 there is no a plausible source-pathway-receptor relationship:</p> <ul style="list-style-type: none"> • The source of EMF arising from the onshore cable route, and onshore substations are all below regulatory exposure limits; • There is limited demonstrable health effect due to static EMF from HVAC infrastructure and all elements of the onshore substation are designed within regulatory standards; and • Receptors would be people living close to the onshore substation. But typical level of magnetic fields generated by infrastructure is expected to be below typical levels of household appliances
Section 2.10.10	<i>There is no direct statutory provision in the planning system relating to protection from EMFs and the construction of new overhead power lines near residential or other occupied buildings. However, the Electricity Safety, Quality and Continuity</i>	As described in Project Description and section 3.5.2.4 National Grid Infrastructure of this document, in order to accommodate the electricity produced by the proposed East

Policy	Summary	Compliance
	<i>Regulations 2002 set out the minimum height, position, insulation and protection specifications at which conductors can be strung between towers to ensure safe clearance of objects. The effect of these requirements should be that power lines at or below 132kV will comply with the ICNIRP 1998 basic restrictions, although the IPC should be satisfied that this is the case on the basis of the evidence produced as specified in the Code of Practice.</i>	<p>Anglia TWO project, a new National Grid substation is required, which will require one additional overhead pylon. Other overhead line pylons in the vicinity of the National Grid substation within the National Grid Overhead Line Realignment Works Area may be subject to replacement or upgrade works to facilitate the connection to the network.</p> <p>Design for the required overhead line (OHL) realignment work (including cable sealing end CCSs and pylon realignment CCS) is not finalised. However, indicative locations for cable sealing end CCSs and pylon realignment CCS are shown in ES Figure 6.6.</p>
2.10.11	<i>Industry currently applies optimal phasing to 275kV and 400kV overhead lines voluntarily wherever operationally possible, which helps to minimise the effects of EMF. The Government has developed with industry a voluntary Code of Practice, “Optimum Phasing of high voltage double-circuit Power Lines – A Voluntary Code of Practice, published in February 2011 that defines the circumstances where industry can and will optimally phase lines with a voltage of 132kV and above. Where the applicant cannot demonstrate that the line will be compliant with the Electricity Safety, Quality and Continuity Regulations 2002, with the exposure guidelines as specified in the Code of Practice on compliance, and with the policy on phasing as specified in the Code of Practice on optimal phasing then the IPC should not grant consent.</i>	<p>As referred to above in response to EN-5 Section 2.10.9, The Applicant’s policy is only to design and install equipment that is compliant with the relevant exposure limits, therefore the additional infrastructure required will be compliant with the Electricity Safety, Quality and Continuity Regulations 2002.</p> <p>All of the equipment for the proposed East Anglia TWO project capable of producing EMFs will be assessed in accordance with the provisions of the Government’s Code of Practice on Compliance, which is compliant with ICNIRP 1998 (section 27.6.3.2.3).</p>
2.10.12	<i>Undergrounding of a line would reduce the level of EMFs experienced, but high magnetic field levels may still occur immediately above the cable. It is not the Government’s policy that power lines should be undergrounded solely for the purpose of reducing exposure to EMFs. Although there may be circumstances where the costs of undergrounding are justified for a particular development, this</i>	Undergrounding of the onshore cable route has been embedded in the project design from the outset to avoid the use of overhead lines and therefore avoid potential visual impacts along the onshore cable route during operation. This also serves to reduce EMF effects along the onshore cable route.

Policy	Summary	Compliance
	<i>is unlikely to be on the basis of EMF exposure alone, for which there are likely to be more cost-efficient mitigation measures...</i>	
2.10.13	<i>In order to avoid unacceptable adverse impacts of EMFs from electricity network infrastructure on aviation, the IPC should take account of statutory technical safeguarding zones defined in accordance with Planning Circular 01/03, or any successor when considering applications... Where a statutory consultee on the safeguarding of technical facilities identifies a risk that the EMF effect of electricity network infrastructure would compromise the effective and safe operation of such facilities, the potential impact and siting and design alternatives will need to have been fully considered as part of the application.</i>	<p>Given that cables will be routed underground, and the proposed substation will only give rise to one additional pylon, it is not considered that there are pathways for effect on aviation receptors</p> <ul style="list-style-type: none"> • Consultation regarding military and civil aviation was conducted with NATS and the MoD. No issues were raised with regard to onshore effects. Please refer to section 15.2 of ES Chapter 15 Civil and Military Aviation and Radar and ES Appendix 15.2 Consultation Responses for more information.

6.23 Offshore Seascape, Landscape and Visual Impact Assessment, and Landscape and Visual Impact Assessment

326. Compliance with policies relating to seascape and landscape visual impact assessments are presented in **Table 6.23**. Full details of the assessment and potential impacts that have been used to inform these topic specific policy compliance assessments can be found in ES **Chapters 28 Seascape, Landscape and Visual Impact Assessment** and **29 Landscape and Visual Impact Assessment**.
327. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.23** below in relation to Offshore Seascape, Landscape and Visual Impact Assessment and Landscape and Visual Impact Assessment.

Table 6.23 Seascape, Landscape and Visual Impact Assessment, and Landscape and Visual Impact Assessment Policy Compliance

Policy	Summary	Compliance
EN-1		
<p>Section 5.9.8 Landscape impact</p>	<p><i>Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.</i></p>	<p>Seascape</p> <p>The seascapes of Suffolk, south Norfolk and North Essex within the Seascape, Landscape and Visual Amenity impact assessment (SLVIA), are varied and interesting seascapes which are valued natural and cultural assets. They contain some of the area’s most important habitats, contribute to the setting of designated landscapes (such as Suffolk Coast and Heaths AONB) and are important from an economic perspective, with major ports, seaside resorts and a range of commercial activities at sea and along the coast. These seascapes are recognised as providing a fundamental contribution to the culture and identity of local communities (section 28.5.1.2 of ES Chapter 28 Offshore Seascape, Landscape and Visual Amenity).</p> <p>The SLVIA in the ES used these preliminary seascape character types and established a further six (demonstrated by ES Figure 28.10). These SCTs were agreed through consultation with key stakeholders (ES Appendix 28.1 Consultation Responses and ES section 28.2 of ES Chapter 28 Offshore Seascape, Landscape and Visual Amenity).</p> <p>Further information on the key characteristics of the above SCTs is provided in ES Appendix 28.3 Seascape Assessment.</p> <p>Potential impacts on the above seascape character areas are assessed as significant during construction and decommissioning for one receptor SCT 03 (Area A Kessingland to Orfordness) however this will be short term and temporary.</p>

Policy	Summary	Compliance
		<p>Operational impacts will also be significant. No other significant impacts are predicted (ES Appendix 28.3 Seascap Assessment).</p> <p>The Suffolk Coast and Heaths AONB is a landscape designation within the study area. Please see response to EN-1 Section 5.9.9 (Development proposed within nationally designated landscapes) of this compliance table for summary of its value and description of potential impacts.</p> <p>The Suffolk Heritage Coast is also within the study area and is assessed as part of the AONB assessment. Please see response to National Planning Policy Framework, Section 15, Paragraph 173 of this compliance table for summary of its value and description of potential impacts.</p> <p><i>Landscape</i></p> <p>ES Figure 28.11 illustrates the National Character Landscape Areas defined by Natural England. The Eastern part of the LVIA study area is located within Suffolk Coast and heaths NCA and the Western part within South Norfolk and High Suffolk Claylands NCA.</p> <p>The Suffolk Coast and Heaths NCA is valued for its shingle beaches and cliffs and lowland heaths, forming a long, narrow band of coast, heath and farmland landscape that extends inland from the coast. Farming now utilises much of the total land area. Sizewell A and B Nuclear Power Stations are located within the NCA. (section 29.5.2 of ES Chapter 29 Landscape and Visual Impact).</p>

Policy	Summary	Compliance
		<p>The Norfolk and High Suffolk Claylands is characterised as a farming landscape, with a strong utilitarian and rural character. Field patterns are irregular, and it is a long-settled landscape with nucleated villages intermixed with dispersed hamlets and farmsteads. Large areas of woodland are relatively scarce however smaller scatterings of woodlands, hedges and hedgerow trees are notable elements of the landscape, often confining views (section 29.5.2 of ES Chapter 29 Landscape and Visual Impact).</p> <p>Please refer to response to National Planning Policy Framework, Section 15, Paragraph 170 of this compliance table for summary of potential impacts to landscape character from the proposed East Anglia TWO project.</p> <p>For summary of how the project has been designed carefully with regard to seascape and landscape character, please refer to response to EN-1 Section 5.9.8 and 5.9.10 (Landscape and Visual) compliance Table 6.2.</p>
<p>Section 5.9.9 Development proposed within nationally designated landscapes</p>	<p><i>National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty. Each of these designated areas has specific statutory purposes which help ensure their continued protection and which the IPC should have regard to in its decisions. The conservation of the natural beauty of the landscape and countryside should be given substantial weight by the IPC in deciding on applications for development consent in these areas.</i></p>	<p>A key design decision was the site selection for the substation and National Grid substation outside of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB). This process is described in ES Chapter 4 Site Selection and Assessment of Alternatives, section 4.9. One of the key site selection principles was to minimise significant impacts on the ‘special qualities’ of the AONB. The AONB Special Qualities appraisal (detailed in ES Appendix 4.3) concluded that if the substation(s) were to be sited in the final selected locations, there is likely to be no significant effects on the special qualities</p>

Policy	Summary	Compliance
		<p>of the AONB.</p> <p>As demonstrated in ES Figure 29.3, there is some overlap of the onshore development (landfall and onshore cable route) with the AONB.</p> <p>Impacts during construction are assessed as not significant for Suffolk Coast and Heaths AONB Area B, between Thorpeness, Aldeburgh and Snape, however they will be significant at Area A, between Thorpeness, Sizewell and Leiston.</p> <p>At Area A (ES Figure 29.8) there will be a temporary and short term physical loss of hedgerows and scrub-heathland habitat during construction. In the setting of the low coastal cliffs at the landfall, the addition of elements during the construction period will change the simple landscape composition and result in changes to the sense of isolation.</p> <p>The AONB's protection will continue to be ensured as the significant impact predicted for area A will be short term and temporary. All hedgerows will be replanted where possible. Bespoke hedgerow replanting locations and planting mixes will be specified in the OLEMS, secured under the requirements of the draft DCO.</p> <p>Potential impacts on special qualities of the AONB have been assessed in ES Appendix 28.4 and summarised in section 28.7.3.2.3 of ES Chapter 28 Seascape Landscape and Visual Impact Assessment. The special qualities are:</p> <ul style="list-style-type: none"> • Landscape Quality;

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • Scenic Quality; • Relative Wildness; • Relative Tranquillity; and • Natural Heritage Features. <p>No significant effects are predicted for Relative Tranquillity or Natural Heritage Features. 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. The East Anglia TWO windfarm site, located outside the AONB, may only impact on the perception of special qualities - landscape and scenic quality, relative wildness and tranquillity.</p> <p>There will be significant impacts during construction and operation on Landscape Quality, in particular on the close-knit interrelationship of semi-natural and cultural landscapes and the seascape setting of the AONB e.g. the simplicity of the landscape.</p> <p>Significant effects are also predicted for Scenic Quality, notably the unique character defined by semi-natural and cultural landscapes and sea cliffs contrasting to flat and gently rolling Sandlings heaths and farmland. The East Anglia TWO offshore windfarm site does not affect the immediate setting of the AONB, but 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.</p> <p>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.</p> <p>From the southern parts of the AONB coastline, there is little or no visibility of the East Anglia ONE North windfarm site,</p>

Policy	Summary	Compliance
		<p>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 East Anglia TWO windfarm site.</p> <p>It is not the overall character or physical features of the coastal edges of the AONB that will be changed, but instead it is specific aesthetic/perceptual aspects of its character relating to panoramic views offshore at the coast that will experience change. The construction and operation of the offshore infrastructure will have a relatively low change to the strong overall character of the AONB and will not result in harm to the special qualities of the AONB in overall terms, with the varied and distinctive landscapes of the AONB continuing to define its overall and fundamental character.</p>
<p>Section 5.9.10 Development proposed within nationally designated landscapes</p>	<p><i>Nevertheless, the IPC may grant development consent in these areas in exceptional circumstances. The development should be demonstrated to be in the public interest and consideration of such applications should include an assessment of:</i></p> <ul style="list-style-type: none"> <i>the need for the development, including in terms of national considerations, and the impact of consenting or not consenting it upon the local economy;</i> <i>The cost of, and scope for, developing elsewhere outside the designated area or meeting the need for it in some other way, taking account of the policy on alternatives set out in Section 4.4; and</i> <i>any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.</i> 	<p>As detailed above, the site selection for the substation and National Grid substation outside of the Suffolk Coast and Heaths AONB avoids significant impact upon the AONB and the need to consider exceptional circumstances for the substations.</p> <p>The onshore cable route does however pass through the AONB. Potential impacts on the environment within the AONB have been assessed by topic within the ES Chapters.</p> <p>An assessment of the effect specifically on landscape is provided in ES Chapter 29 Landscape and Visual Impact.</p> <p>Impacts upon recreational aspects are covered in ES Chapter 30 Tourism, Recreation and Socio-economics. Section 30.6.1.4 relates to impacts to visitors to the area during construction in terms of disturbance, including recreational assets such as PROWs. All other interactions with public spaces such as playing fields and common land has been avoided</p>

Policy	Summary	Compliance
		through site selection as part of the embedded mitigation for the proposed East Anglia TWO project.
Section 5.9.11 Development proposed within nationally designated landscapes	<i>The IPC should ensure that any projects consented in these designated areas should be carried out to high environmental standards, including through the application of appropriate requirements where necessary</i>	<p>The value of the local landscape designations is a consideration within the Landscape and Visual Amenity (LVIA) and assessed in respect of each landscape receptor in section 28.6 of ES Chapter 28 Offshore Seascape, Landscape and Visual Impact Assessment and section 29.6 of ES Chapter 29 Landscape and Visual Impact Assessment) and ES Appendices 28.2 Seascape Assessment and 29.2 Landscape Assessment.</p> <p>The assessment methodology is presented in section 29.4 of ES Chapter 29 Landscape and Visual Impact Assessment. The assessment has been carried out following best industry practice and follows relevant legislation and policy.</p>
Section 5.9.12 and 5.9.13 Developments outside nationally designated areas which might affect them	<p><i>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...</i></p> <p><i>The fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent.</i></p>	<p>Nationally designated areas in proximity to the proposed East Anglia TWO project include the Suffolk Coast and Heaths AONB, and the Broads National Park.</p> <p>As discussed above, a key design decision was the site selection for the substation and National Grid substation outside of the Suffolk Coast and Heaths AONB. The AONB Special Qualities appraisal (detailed in Appendix 4.2) concluded that if the substation(s) were to be sited in the final selected locations, there is likely to be no significant effects on the special qualities of the AONB.</p> <p>The Broads National Park was scoped out of the ES given its distance from the development, as referred to in response to EN-1 Section 5.9.8 (Landscape Impact). At 45km south of The</p>

Policy	Summary	Compliance
		<p>Broads National Park there is no potential for the project to compromise its protection from outside of the Parks boundaries.</p> <p>ES Figure 29.3 illustrates where the proposed development area and nationally designated areas overlap. The proposed project is partially within and outside of the designated sites.</p> <p>Section 29.2.3.2 of ES Appendix 29.3 Landscape Assessment acknowledges the indirect impacts that may occur where there is no direct overlap. These indirect impacts and their significance have subsequently been incorporated into the overall assessment methodology.</p> <p>For each landscape character type (LCT) in the ES Appendix 29.3 Landscape Assessment, no indirect impacts on Suffolk Coast and Heaths AONB are predicted. Significant effects will only occur from the locations within the designated site as described in response to National Planning Policy Framework Section 15, Paragraph 172 of this compliance table.</p>
<p>Section 5.9.14 Developments in other areas</p>	<p><i>Outside nationally designated areas, there are local landscapes that may be highly valued locally and protected by local designation. Where a local development document in England has policies based on landscape character assessment, these should be paid particular attention. However, local landscape designations should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.</i></p>	<p>The Hundred River Valley SLA is a local landscape designation, which is identified in the assessment as having special landscape attributes that are vulnerable to change and is afforded policy protection in the local plan (ES Appendix 29.3 Landscape Assessment).</p> <p>Where the onshore cable route passes through LCT 06, no significant impacts are predicted for Area A where there is overlap with the Hundred Valley. Significant effects will occur during construction and operation where the largest physical loss of mature woodland occurs at Raidsend, on land to the south of Aldringham Court, where up to approximately 0.9ha of mature woodland will be felled to facilitate the construction of the</p>

Policy	Summary	Compliance
		<p>onshore cable route crossing Aldeburgh Road. For the majority of the Hundred River Valley, where the project is located outside of, impacts are assessed as not significant during construction and operation (ES Appendix 29.3 Landscape Assessment).</p> <p>Embedded mitigation at this location minimises the cable route swathe to 16.1m to reduce the amount of woodland removed (see ES Chapter 4 Site Selection and Assessment of Alternatives, section 4.9 and Chapter 6 Project Description, section 6.7)</p>
<p>Section 5.9.15 Developments in other areas</p>	<p><i>The scale of such projects means that they will often be visible within many miles of the site of the proposed infrastructure. The IPC should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project.</i></p>	<p><i>Offshore wind farm site infrastructure</i></p> <p>The separation distances from sensitive coastal landscape and visual receptors, at distances of over 30km from the nearest coastline. The East Anglia TWO windfarm site is well set-back at distance (over 29km) from the nearest parts of the coastline. Visualisations are provided in ES Figures 28.26 to 28.53. These provide viewpoints from the locations described in section 28.5.33 of ES Chapter 28 Offshore Seascape, Landscape and Visual Amenity.</p> <p>With regards to visibility impacts, the judgements made in the SLVIA are based on optimum ‘very good’ to ‘excellent’ visibility of the proposed East Anglia TWO windfarm site. This is assessed as the worst case scenario. In reality the degree and extent of visual effects arising from the East Anglia TWO windfarm site will be influenced by the prevailing weather and visibility conditions. This means that effects that are assessed to be significant in the SLVIA under very good or excellent visibility conditions, may be not significant under moderate, poor or very poor visibility conditions. Based on visibility from the closest</p>

Policy	Summary	Compliance
		<p>point (29.8km), the Met Office visibility data indicates that the East Anglia TWO windfarm site will have a visibility frequency of approximately 35% i.e. 128 days of the year on average (or approximately one third of the year) with visibility over 29.8km (section 28.8.3).</p> <p>With regards to viewpoints, significant visual effects have been assessed from several representative viewpoint locations representing views experienced by people along the closest section of the East Suffolk coastline between Covehithe and Aldeburgh (ES Figure 28.25), from, Viewpoint 3 (Covehithe), Viewpoint 4 (Southwold), Viewpoint 5 (Gun Hill, Southwold), Viewpoint 6 (Walberswick), Viewpoint 7 (Dunwich), Viewpoint 8 (Dunwich Heath), Viewpoint 9 (Minsmere), Viewpoint 11 (Coastal Path between Sizewell and Thorpeness), Viewpoint 12 (Thorpeness) and Viewpoint 13 (Aldeburgh). (section 28.8.3.2). In these views, the proposed East Anglia TWO windfarm site will generally have a lateral spread on the sea skyline of between 26-30° of the field of view, which is a notable spread of windfarm development on the horizon, but a relatively limited portion of the wider 180° sea views available to the observer. The open sea skyline would remain unaffected across the majority of the field of view out to sea.</p> <p>With regard to landscape types, there will be some significant effects within Areas C and D of the Coastal Dunes and Shingle Ridges. The same is also true for Area A of the Estate Sandlands. Full technical assessments are provided in ES Appendix 28.4. LCTs are mapped at detailed scale in Figure 28.17.</p>

Policy	Summary	Compliance
		<p>ES Chapter 28 Offshore Seascape, Landscape and Visual Amenity (SLVIA) concluded that although the construction and operation of the offshore infrastructure extends the influence of existing energy characteristics of the seascape and results in some significant effects on the character and views from the closest areas of the Suffolk Coastline, there is capacity for the proposed East Anglia TWO windfarm site to be accommodated in this location without unacceptable effects on seascape, landscape character and visual amenity (section 28.13). This must also be taken on balance with the need for the project described in section 5 Need and the Case for the Development.</p> <p><i>Onshore infrastructure</i></p> <p>Onshore viewpoints are specified in section 29.5.4.3 of ES Chapter 29 Landscape and Visual Impact.</p> <p>With respect to the onshore cable route, the only significant construction and operational effects are at Raidsend (Aldringham Court Nursing Home) and the Aldeburgh Road due to the removal of woodland. These significant impacts will be mitigated through the establishment of heathland habitat and the partial reinstatement of woodland at Raidsend, at the end of the construction phase. There will be no other significant impacts during operation as there will be no above ground infrastructure (section 29.6.2).</p> <p>In terms of the onshore substation and National Grid substation, significant effects will occur during the construction phase however these will be short-term and temporary. During operation, potentially significant impacts at the onshore</p>

Policy	Summary	Compliance
		<p>substation and National Grid substation would be largely contained within the local landscape. Significant operational visual effects would be experienced only at Saxmundham Road, Aldeburgh Road, Friston Area C, Grove Road Section B and Suffolk Coastal Cycle Route Section B (section 29.1.6.3). Mitigation planting will be introduced and designed with the aim of reducing these identified impacts (ES Figure 29.11).</p> <p>The planting includes areas of fast growing woodland species as this will provide the height required, as well as the density, to ensure effective screening. Please refer to the OLEMS (document reference 8.7) submitted with the DCO application, which will be reviewed following consultation with statutory consultees and the local community. In locations where it is possible to achieve advanced planting, this will be undertaken in consultation with the local community to allow growth prior to completion of construction and commencement of operation.</p>
<p>Section 5.9.16 Developments in other areas</p>	<p><i>In reaching a judgment, the IPC should consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the IPC considers reasonable.</i></p>	<p>Please refer to response above (EN-1 5.9.16) regarding significant impacts of a temporary nature for onshore. As described in section 29.4.3.5 of ES Chapter 29 Landscape and Visual Impact, Landscape and visual effects are assessed as either permanent or temporary. Permanent effects are those which are irreversible, such as the permanent or long-term (>10 years) land take as a result of development or the physical removal of existing landscape elements that cannot be reinstated.</p> <p>For offshore, as described in section 28.4.3.8, the duration and reversibility of seascape/ landscape and visual effects is based on the period over which the proposed East Anglia TWO project</p>

Policy	Summary	Compliance
		is likely to exist and the extent to which the proposed East Anglia TWO project will be removed and its effects reversed at the end of that period. Duration and reversibility have not been included within magnitude of change and instead this is determined separately. The offshore impacts provided in response to 5.9.15 above are all considered long term and reversible.
Section 5.9.17 Developments in other areas	<i>The IPC should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by reasonable mitigation.</i>	ES Chapter 4 Site Selection and Assessment of Alternatives and sections 3.3 Site Selection and 3.4 Evolution and Design of the Project of this document sets out the iterative process that has influenced the design of the proposed East Anglia TWO project. The mitigation of landscape and visual effects has been carefully considered in the SLVIA and LVIA, to minimise 'harm to the landscape' where possible. Please refer to response to EN-1 Section 5.9.8 Landscape and Visual in compliance Table 6.2 Good Design, Alternatives and Adaptation for examples of embedded and additional mitigation.
Section 5.9.18 Visual Impact	<i>All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The IPC will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project. Coastal areas are particularly vulnerable to visual intrusion because of the potential high visibility of development on the foreshore, on the skyline and affecting views along stretches of undeveloped coast.</i>	Visual receptors incorporated into the SLVIA are described in section 28.5.3.2 of ES Chapter 28 Offshore Seascape, Landscape and Visual Amenity . This includes local residents and other receptors such as visitors. The receptors are summarised in section 28.8.3.2 and range from beach users, local residents, walkers and cyclists, recreational boaters, people sitting/viewing from seafront benches and people engaged in recreational amusements. Significant effects are predicted for the abovementioned receptors at:

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		<ul style="list-style-type: none"> • Southwold Area A, however very good or excellent visibility would be required at or beyond 32.56km which occurs approximately 33% of the time; • Thorpeness Area A however very good or excellent visibility would be required at or beyond 35.09km which occurs approximately 26% of the time; and • Aldeburgh Area A and B, requiring visibility at or beyond 35.84km, which occurs approximately 26% of the time. <p>Regarding Landscape and Visual Impact, the visual receptors most susceptible to visual effects occur in particular, in the vicinity of the onshore substation and National Grid infrastructure. They include people within settlements and those driving on roads, visitors to tourist facilities or historic environment assets, and people engaged in recreational activities such as walking and cycling. Principal visual receptors are shown on ES Figure 29.4. Impacts and their significance are presented in response to EN-1 Section 5.8.15 in this compliance table.</p>
Section 5.9.19 Visual Impact	<i>It may be helpful for applicants to draw attention, in the supporting evidence to their applications, to any examples of existing permitted infrastructure they are aware of with a similar magnitude of impact on sensitive receptors. This may assist the IPC in judging the weight it should give to the assessed visual impacts of the proposed development.</i>	Examples of existing infrastructure with a similar magnitude of impact on sensitive receptors (based on similar distances from the coast) and clustering include the Round 2 windfarms in operation in The Wash - i.e. Inner Dowsing, Lincs, Lynn, Race Bank, Sheringham Shoal and Dudgeon which are visible from The Wash and North Norfolk Coast AONB (see Figure 6.1). Other examples include the Rampion offshore windfarm (operational and visible from the South Downs National Park) and those in construction or consented off the east coast of Scotland (i.e. the Firth of Forth and Tay windfarms – Seagreen,

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		<p>Inch Cape and Neart na Gaoithe; and the Moray Firth windfarms – Beatrice, Moray East and Moray West)</p> <p>As per the conclusions drawn in section 28.13 of ES Chapter 28 Offshore Seascape Landscape and Visual Amenity, the SLVIA found that the construction and operation of the offshore infrastructure would not result in the key characteristics of significantly affected areas as being affected to such a degree that the seascape would become a ‘windfarm seascape’ (in addition to or with other operational windfarms), where wind turbines dominate the character, but that it would remain characterised locally as a ‘seascape with windfarms’ (inclusive of night time). This is an important distinction as it implies that the carrying capacity - as defined by its inherent character - would not be exceeded by the construction and operation of the offshore infrastructure.</p> <p>The East Anglia TWO windfarm site is located within a seascape that has physical characteristics and scale that underpin its capacity to absorb further offshore windfarm development of the size and scale proposed. Furthermore, landscape planning has already established and accepted landscape change from offshore windfarm development in this seascape including Galloper, Greater Gabbard and East Anglia ONE.</p> <p>With regard to the onshore infrastructure, a summary of existing development in the area is provided in Planning History.</p>
Section 5.9.20 Visual Impact	<i>The IPC should ensure applicants have taken into account the landscape and visual impacts of visible plumes from chimney stacks and/or the cooling assembly. It may need to attach requirements to the consent requiring the incorporation of</i>	Not relevant to the proposed East Anglia TWO project.

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	<i>particular design details that are in keeping with the statutory and technical requirements.</i>	
Section 5.9.21	<i>Reducing the scale of a project can help to mitigate the visual and landscape effects of a proposed project. However, reducing the scale or otherwise amending the design of a proposed energy infrastructure project may result in a significant operational constraint and reduction in function – for example, the electricity generation output. There may, however, be exceptional circumstances, where mitigation could have a very significant benefit and warrant a small reduction in function. In these circumstances, the IPC may decide that the benefits of the mitigation to reduce the landscape and/or visual effects outweigh the marginal loss of function.</i>	The north-south extent of the proposed East Anglia TWO windfarm site has been reduced from that presented at Scoping and in the Preliminary Environmental Information in order to minimise/mitigate visual impacts. This was in direct response to stakeholder comments. This reduction has been managed without with the need to reduce the required electricity generation output. Please refer to ES Chapter 28 Offshore Seascape Landscape and Visual Amenity, section 28.3.3 for details
Section 5.9.22 Mitigation	<i>Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project. Materials and designs of buildings should always be given careful consideration.</i>	Areas where significant visual impacts occur are described in response to EN-1 Section 5.9.15 of this compliance table . Detailed landscaping proposals are presented in sections 29.3.3 and 29.3.4 of ES Chapter 29 Landscape and Visual Impact Assessment . These are also presented in the OLEMS (document reference 8.7).
Section 5.9.23 Mitigation	<i>Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site. For example, filling in gaps in existing tree and hedge lines would mitigate the impact when viewed from a more distant vista.</i>	There will be significant long-term and permanent impacts on a localised area to the north of Friston, however this is limited to within approximately 1km around the onshore substation and National Grid substation. This will mostly affect residents and motorists. ES Figure 29.11 shows how mitigation planting would contribute to the wider landscape structure of the area and has been designed to screen the onshore project substation and help consolidate green corridors. Details of the mitigation planting are presented in section 29.3.4 of ES Chapter 29 Landscape and

Policy	Summary	Compliance
		Visual Impact. These are also presented in the OLEMS (document reference 8.7).
EN-3		
Section 2.6.207	<i>The IPC should assess the proposal in accordance with the policy set out in the landscape and visual impacts Section 5.9 of EN-1.</i>	Compliance with section 5.9 (Landscape and Visual) of EN-1 is demonstrated in sections above in this compliance table and in compliance Table 6.2 Good Design, Alternatives and Adaptation.
Section 2.6.208	<p><i>Where a proposed offshore wind farm is within sight of the coast, there may be adverse effects. The IPC should not refuse to grant consent for a development solely on the ground of an adverse effect on the seascape or visual amenity unless:</i></p> <ul style="list-style-type: none"> <i>• it considers that an alternative layout within the identified site could be reasonably proposed which would minimise any harm, taking into account other constraints that the applicant has faced such as ecological effects, while maintaining safety or economic viability of the application; or</i> <i>• taking account of the sensitivity of the receptor(s) as set out in EN-1 paragraph 5.9.18, the harmful effects are considered to outweigh the benefits of the proposed scheme.</i> 	<p>As described in section 4.7.2 of ES Chapter 4 Site Selection and Assessment of Alternatives, the ZEA and ZTA process considered seascape and visual amenity as a key constraint for the siting of the proposed East Anglia TWO project.</p> <p>Embedded mitigation is described in section 28.3.3 of ES Chapter 28 Offshore Seascape, Landscape and Visual Impact Assessment. The north-south extent of the proposed East Anglia TWO windfarm site has been reduced from that presented at Scoping and in the Preliminary Environmental Information Report in order to minimise/mitigate visual impacts. This was in direct response to stakeholder comments. This reduction has been managed without with the need to reduce the required electricity generation output.</p> <p>It is considered that in seascape, landscape and visual terms, there is scope for the proposed East Anglia TWO project to be accommodated in this location without unacceptable effects on seascape, landscape character and visual amenity (section 28.13 of ES Chapter 28 Offshore Seascape, Landscape and Visual Impact Assessment).</p>

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		The significance of the impacts on receptors at the settlements described in response to EN-1 section 5.9.18 is not considered to outweigh the benefits of the proposed scheme which are discussed in detail in section 5 Need and the Case for the Development .
Section 2.6.209	<i>Where adverse effects are anticipated either during the construction or operational phases, in coming to a judgement, the IPC should take into account the extent to which the effects are temporary or reversible.</i>	With regard to seascape, impacts range from significant to not significant, however all remain reversible (section 28.6.3 of ES Chapter 28 Offshore Seascape, Landscape and Visual Impact Assessment). Please refer to response to EN-1 Section 5.9.16 of this compliance table for extent of temporary impacts and how they are defined for the purpose of assessment.
EN-5		
Section 2.8.7	<i>The IPC should recognise that the Holford Rules, and any updates, form the basis for the approach to routing new overhead lines and take them into account in any consideration of alternatives and in considering the need for any additional mitigation measures.</i>	As described in section 4.4.2 of ES Chapter 4 Site Selection and Assessment of Alternatives , there is a clear benefit from a visual amenity perspective of burying cables as opposed to further overhead lines and pylons. The onshore substation was sited as close to the existing National Grid overhead lines as possible to reduce the requirement for cabling and in order to meet an efficient and economic system (section 4.9.1.2.1 of ES Chapter 4 Site Selection and Assessment of Alternatives).
National Planning Policy Framework		
Section 15 Paragraph 170	<i>Planning policies and decisions should contribute to and enhance the natural and local environment by:</i> <i>a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner</i>	a) The elements which make up the valued landscape in the proposed East Anglia TWO development are agricultural land, heathland, woodland and other features such as hedgerows, shelter belts and watercourses (section 29.5 of ES Chapter 29

Policy	Summary	Compliance
	<p><i>commensurate with their statutory status or identified quality in the development plan);</i></p> <p><i>b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;</i></p> <p><i>c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;</i></p>	<p>Landscape and Visual Impact). These features are part of the landscape designations in the area:</p> <ul style="list-style-type: none"> • Suffolk Coast and Heaths AONB; • Hundred River Valley Special Landscape Area (SLA) <p>As discussed above, a key design decision was the site selection for the substation and National Grid substation outside of the Suffolk Coast and Heaths AONB. The AONB Special Qualities appraisal (detailed in ES Appendix 4.2) concluded that if the substation(s) were to be sited in the final selected locations, there is likely to be no significant effects on the special qualities of the AONB.</p> <p>The construction of the onshore infrastructure will result in some significant effects on these landscapes via removal of trees and alteration to ground cover, however these are of short term and temporary duration (section 29.10.3). Following reinstatement works summarised in Table 29.19, this is unlikely to result in significant effects and therefore these valued landscapes will not be adversely affected.</p> <p>b) and c) With regard to recognising and maintaining the intrinsic character of the area, section 29.5.2 describes the National Character Areas (NCAs) of relevance, which are the Suffolk Coast and Heaths NCA (82) and South Norfolk and High Suffolk Claylands NCA (83). Within these areas the baseline for the LVIA study area is based on LCTs defined in the Suffolk County Council Landscape Character Assessment.</p> <p>Although the construction of the onshore infrastructure results in some significant effects on landscape character of the AONB</p>

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		<p>and on visual amenity/views, these occur only from localised areas in close proximity to the onshore infrastructure, and are of short-term and temporary duration, during the construction of the landfall, onshore cable route, onshore substation and National Grid substation.</p> <p>The operational effects of the onshore infrastructure primarily occur as a result of the operation of the onshore substation and National Grid substation, where significant effects on local landscape character and visual amenity/views occur within an area of approximately 1km from the onshore substation and National Grid substation. There are notable opportunities for deliverable and effective mitigation of the landscape and visual impacts of the onshore substation in the form of new woodland planting proposed in the OLEMS (document reference 8.7).</p> <p>Consideration of agricultural land and its value is provided in Table 6.17 Onshore Ecology Policy Compliance.</p>
<p>Section 15 Paragraph 172</p>	<p><i>Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within these designated areas should be limited. Planning permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the</i></p>	<p>One of the primary forms of embedded mitigation for the onshore substation and National Grid substation, has been the selection of the substation site outside the Suffolk Coast AONB. The site selection process (section 4.4 of ES Chapter 4 Site Selection and Assessment of Alternatives) indicated the onshore substation and National Grid substation could be accommodated at the Grove Wood, Friston site without significant effects on the special qualities of the AONB.</p> <p>The onshore cable route does however pass through the AONB. Potential impacts on the environment within the AONB have been assessed by topic within the ES Chapters.</p>

Policy	Summary	Compliance
	<p><i>public interest. Consideration of such applications should include an assessment of:</i></p> <p><i>a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;</i></p> <p><i>b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and</i></p> <p><i>c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.</i></p>	<p>a) The need for the development is discussed in section 5 of this document, Need and the Case for the Development, including strategic need with regard to renewable electricity infrastructure and generation. The potential impacts on the economy at local and regional levels have been assessed in section 30.6 of ES Chapter 30 Tourism, Recreation and Socio-economics. This assesses the impacts on the local and regional labour market through direct employment and indirect employment through the supply chain, as well as induced employment due to expenditure by people that are directly or indirectly employed.</p> <p>b) Please see Table 6.2 Marine Geology, Oceanography and Physical Processes Policy Compliance for evidence which demonstrates The Applicant's consideration of project alternatives.</p> <p>c) The construction of the landfall is assessed as having significant but short term effects on a localised area of the Suffolk Coast and Heaths AONB, resulting from the HDD compound and construction of transition bays to the north of Thorpeness (section 29.10.1 of ES Chapter 29 Landscape and Visual Impact).</p> <p>The effects of the construction of the onshore cable route have been assessed against the special qualities of the AONB. The effects of the construction of the onshore cable route on the landscape character of the AONB are assessed as significant, but short-term and temporary between the landfall to the north of Thorpeness, Sizewell Gap Road and the edge of the AONB near Leiston (Area A). Along this localised section of the cable route during the construction period, effects are assessed as being</p>

Policy	Summary	Compliance
		<p>significant, but short-term and temporary on the landscape/scenic quality, relative wildness, tranquillity and natural heritage features of this localised area within the AONB. The effect of the construction of the onshore cable route on the special qualities of the wider AONB within the LVIA study area (Areas B and C) is assessed as not significant, short-term and temporary (section 29.10.1).</p>
<p>Section 15 Paragraph 173</p>	<p><i>Within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 172), planning policies and decisions should be consistent with the special character of the area and the importance of its conservation. Major development within a Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.</i></p>	<p>The Technical Assessment in ES Appendix 29.3 Landscape Assessment describes and assesses the effects of the onshore infrastructure of the proposed East Anglia TWO project on the special characteristics and qualities of the Suffolk Heritage Coast as part of the assessment of the AONB. The extent of the heritage coast within the LVIA study area is shown in ES Figure 29.3.</p> <p>The purpose of the Suffolk Heritage Coast is similar to that of the Suffolk Coast and Heaths AONB. It's protection policies are also incorporated into the AONB Management Plan, therefore the effects on the Heritage Coast are also captured in the assessment on the AONB (section 29.5.3.2 of ES Chapter 29 Landscape and Visual Impact). Impacts on the Suffolk Coast and Heaths AONB are outlined above in response to Paragraph 172 of the National Planning Policy Framework. Given the short term nature of the assessed significant impacts, the proposed East Anglia TWO project is not deemed to be incompatible with the Suffolk Heritage Coasts' special character.</p>

Policy	Summary	Compliance
SCC Nature Strategy		
Recommendation 2	<i>The active partnerships in our protected landscapes should seek to ensure these areas are exemplars of landscape scale conservation. Where development is proposed in these areas, such as Sizewell C in the Suffolk Coast and Heaths AONB, they should work to ensure they are of the highest quality as 'environmental exemplars'.</i>	<p>Mitigation measures to conserve the landscape are included in section 28.3.3 of ES Chapter 28 Offshore Seascape, Landscape and Visual Impact Assessment and sections 29.3.3 and 29.3.4 of ES Chapter 29 Landscape and Visual Impact Assessment.</p> <p>The OLEMS (document reference 8.7) submitted with the DCO application has been developed in consultation with the LVIA expert topic group (comprising representatives from Suffolk County Council, East Suffolk Council (formerly Suffolk Coastal District Council, and Waveney District Council), Norfolk County Council, Great Yarmouth Borough Council, the Broads National Park, Suffolk Coast and Heaths AONB unit, Natural England and Historic England).</p>
Recommendation 8	<i>New woodland planting should be of the right trees in the right places, particularly where they can buffer and expand designated sites, enhance landscape character or improve the extent of natural green space close to where people live.</i>	<p>Landscape mitigation is included in section 29.3.4 of ES Chapter 29 Landscape, Visual Impact Assessment, which includes tree planting. For specific details on the nature of the trees to be replanted and their locations (ES Figure 29.11) please see response provided to EN-1 Section 5.9.8 (Landscape and Visual) in compliance Table 6.1 Good Design, Alternatives and Adaption Policy Compliance.</p>
SCDC Core Strategy and Development Management Plan		
DM21 – Design-Aesthetics	<i>Development will be permitted where the following criteria are met:</i>	<p>The site selection process has aimed to maximise the protection of existing site features (e.g. the screening effect of Grove Wood at Friston) and avoid settlements wherever possible. Please refer to Site Selection for further details.</p>

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	<p><i>Layouts should incorporate and protect existing site features of landscape, ecological, heritage or amenity value as well as enhance such features e.g. habitat creation; and</i></p> <p><i>Attention must be given to the form, scale, use, and landscape of the spaces between buildings and the boundary treatment of individual sites, particularly on the edge of settlements.</i></p>	<p>The response to EN-1 Section 5.3.8 (Visual and Landscape) in compliance Table 6.1 Good Design, Alternatives and Adaption Policy Compliance describes how the proposed East Anglia TWO project has considered existing landscape features at the early design stage.</p> <p>For example, 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 practically 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 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. Please refer to section 29.3.3 of ES Chapter 29 Landscape and Visual for further examples of embedded mitigation relating to the layout and existing landscape.</p>
DM26 - Lighting	<p><i>The District Council will seek to minimise light pollution. Applications for development requiring or likely to require external lighting should include details of lighting schemes. This should include position, height, aiming points, lighting levels and a polar luminance diagram. Applicants will need to satisfy the District Council that:</i></p>	<p><i>Offshore</i></p> <p>Wind turbine lighting is described in Chapter 6 Project Description, section 6.5. Effects due to wind turbine lighting is described in section 28.3.2.5 of ES Chapter 28 Offshore Seascape, Landscape and Visual Amenity.</p> <ul style="list-style-type: none"> • The visual impact of the construction and operation of the offshore infrastructure at night has been assessed in

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	<p><i>The proposed lighting scheme is the minimum needed for security, working purposes, recreational or other use of the land;</i></p> <p><i>It is designed so as to minimise pollution from glare and light spillage, particularly to residential and commercial areas, areas of nature conservation importance, and areas whose open and landscape qualities would be affected; and</i></p> <p><i>There will be no glare or light spillage onto highways which could dazzle, distract or disorientate road users using them.</i></p> <p><i>In order to prevent unnecessary intrusion into the countryside, or the effect on residential amenity, the District Council may seek to control the days and times of use of lighting (excluding street lighting).</i></p>	<p>this chapter, informed by assessment and night-time photomontage visualisations produced from representative viewpoints where people will most likely experience night-time views. The SLVIA and night time photomontages in the below figures assume full lighting intensity of the 2000 candela aviation warning lights in very good to excellent visibility conditions as a worst case. Lowestoft (Viewpoint 1 – ES Figure 28.26a-g;</p> <ul style="list-style-type: none"> • Kessingland Beach (Viewpoint 2 – ES Figure 28.27a-g; • Southwold (Viewpoint 4 – ES Figure 28.29a-l; • Aldeburgh (Viewpoint 13 – ES Figure 28.38a-e; and • Felixstowe (Viewpoint 17 – ES Figure 28.42a-g). <p>Note that this is an unrealistic worst case as, in good visibility (>5km) the lighting can be reduced in intensity to 10% of maximum (200candela). Therefore, additional photomontage visualisations of the aviation lights at 200 candela are also provided.</p> <p>Night time lighting of the wind turbines will introduce further lighting in the relatively dark night skies, however will be viewed at long distance offshore, in the context of existing wind turbine lighting (Galloper and Greater Gabbard) and other lighting of cardinal buoys and vessels in the waters off the AONB coastline. The turbine lighting will not introduce light to the extent where it could impact users of any highways.</p> <p>Section 28.3.3 of ES Chapter 28 Offshore Seascape, Landscape and Visual Amenity describes the embedded mitigation measures to reduce light pollution. Aviation warning lights will only be fitted to significant peripheral wind turbines and</p>

Policy	Summary	Compliance
		<p>will allow for reduction in lighting intensity at and below the horizon when visibility from every wind turbine is more than 5km. SAR lighting of each of the non-periphery turbines will be low intensity hazard lights, individually switchable from the control centre at the request of the MCA. Marine navigational lights will be fitted at the platform level only on SPS.</p> <p><i>Onshore</i></p> <p>During construction along the length of the onshore cable route, no 24-hour lighting is anticipated to be required except that associated with HDD operations and security lighting at the CCSs. Task lighting will be utilised in localised areas where required (see Chapter 6 Project Description, section 6.7).</p> <p>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.</p> <p>Operational lighting requirements at the East Anglia TWO onshore substation site may entail (see Chapter 6 Project Description, section 6.7):</p> <ul style="list-style-type: none"> • Security lighting; • Car park lighting; and • Repair / maintenance – task related flood lighting may be necessary. <p>An Operational Artificial Light Emissions Management Plan will be developed for the final design for the permanent infrastructure, secured under the requirements of the draft DCO, which will include measures to minimise light spill and be</p>

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		designed in line with the 'Bats and Artificial Lighting in the UK' guidance (BCT 2018).
SCDC Local Development Plan		
SCLP10.3 – Landscape Character	<p><i>Proposals for development should be informed by, and sympathetic to, the special qualities and features as described in the Suffolk Coastal Landscape Character Assessment (2018), the Settlement Sensitivity Assessment (2018), or successor and updated landscape evidence.</i></p> <p><i>Development proposals will be expected to demonstrate their location, scale, form, design and materials will protect and where possible enhance:</i></p> <p><i>The special qualities and features of the area;</i></p>	<p>The Suffolk Coastal Landscape Character Assessment (2018) and Settlement Sensitivity Assessment (2018) were not included in the Landscape Character Assessment data sources (section 29.4.2 of ES Chapter 29 Landscape and Visual), however these latest assessments and the methodology employed in the ES are both underpinned by national guidance such as Natural England (2014) An Approach to Landscape Character Assessment. A full list of the data sources and evidence used is provided in section 29.2.1.3 of ES Appendix 29.2 LVIA Methodology</p> <p>For details of how the proposed East Anglia TWO design will protect the special qualities and features in the area please refer to compliance Table 6.1 Good Design, Alternatives and Adaption Policy Compliance, WDC Local Plan, Policy WLP 8.29 (Design).</p>
	<p><i>The visual relationship and environment around settlements and their landscape settings;</i></p>	<p>The existing baseline of the current visual relationship is described in sections 28.5 and 29.5 of ES Chapters 28 Offshore Seascape, Landscape and Visual Amenity and ES Chapter 29 Landscape and Visual respectively. Please refer to response to EN-1 Section 5.9.18 (Visual Impact) of this compliance table for a summary of impacts relating to the visual relationship and environment around settlements and their landscape settings.</p>

Policy	Summary	Compliance
	<p><i>Distinctive landscape elements including but not limited to watercourses, commons, woodland trees, hedgerows and field boundaries, and their function as ecological corridors;</i></p>	<p>With regard to protecting these features as far as possible, 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.</p> <p>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.</p> <p>Up to 1ha of broadleaved semi-natural woodland could be lost during the construction phase, however The Applicant will ensure that at least an equivalent area of lost woodland is replanted following completion of the works (section 22.6.1.4 of ES Chapter 22 Onshore Ecology).</p> <p>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 and tree replanting locations and planting mixes will be specified in the planting schedule as part of the OLEMS (document reference 5.3). 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.</p> <p>Hedgerow replacement planting over the cable trenches is acceptable as hedgerow roots are typically 800mm deep and the</p>

Policy	Summary	Compliance
		<p>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 (section 29.3.4.2 of ES Chapter 29 Landscape and Visual).</p> <p>The onshore substation benefits from some substantial existing hedgerows and woodland blocks within the local area, in particular Grove Wood and Laurel Covert. Additional woodland planting will be undertaken to provide additional screening and enhance the function as ecological corridors. The extent of mitigation planting incorporated into the design is presented in ES Figure 29.11 and mostly comprises indigenous woodland species planted around the onshore substation and National Grid substation. Section 29.3.4.1 of ES Chapter 29 Landscape and Visual Impact provides further information on the types of woodland planting relating to the following:</p> <ul style="list-style-type: none"> • Core native woodland; • Screen native woodland mix; • Native woodland edge mix; • Native wet woodland mix; and • Native hedgerows.
	<p><i>Visually sensitive skylines, seascapes, river valleys and significant views towards key landscapes and cultural features; and</i></p>	<p>Location, scale, form and design are considered in relation to potential impacts on The Hundred River Valley, a designated SLA. This is considered in ES Appendix 29.3 Landscape Assessment and ES Appendix 28.4 Landscape Assessment (Seascape). For assessment of potential impacts affecting its</p>

Policy	Summary	Compliance
	<p><i>Development will not be permitted where it will have a significant adverse impact on rural river valleys, historic park and gardens, coastal, estuary, heathland, AONB and other very sensitive landscapes. Proposals for development will be required to secure the preservation and appropriate restoration or enhancement of natural, historic or man made features across the District as identified in the Landscape Character Assessment, Settlement Sensitivity Assessment and successor landscape evidence.</i></p>	<p>protection please refer to response to Suffolk Coastal District Council Core Strategy and Development Management Policy, Strategic Policy SP15 Landscape and Townscape in compliance Table 6.1 Good Design, Alternatives and Adaption Policy Compliance.</p> <p>For assessment on landscape and seascape please refer to response to EN-1, Section 5.9.15 (Developments in other areas) of this compliance Table. The Landscape and Seascape assessments both incorporate the consideration of cultural features within their respective methodologies (ES Appendix 28.2 SLVIA Methodology and ES Appendix 29.2 LVIA Methodology).</p> <p>Impacts associated with the proposed East Anglia TWO project relating to rural river valleys are outlined above (Hundred River Valley SLA).</p> <p>Historical parks and gardens have been assessed within ES Appendix 24.3 East Anglia TWO and East Anglia ONE North Offshore Windfarms: Onshore Archaeology and Cultural Heritage Desk Based Assessment. There are no historical parks and gardens will be impacted by the project, therefore no impacts are predicted.</p> <p>Impacts on coastal, estuary, heathland features and Suffolk Coast and Heaths AONB are assessed as part of the Landscape (ES Appendix 28.4 Landscape Assessment and ES Appendix 29.3 Landscape Assessment) and Seascape Assessments (ES Appendix 28.3 Seascape Assessment). These features are included under 'key characteristics' of each LCT. The impacts on these LCTs are presented in section</p>

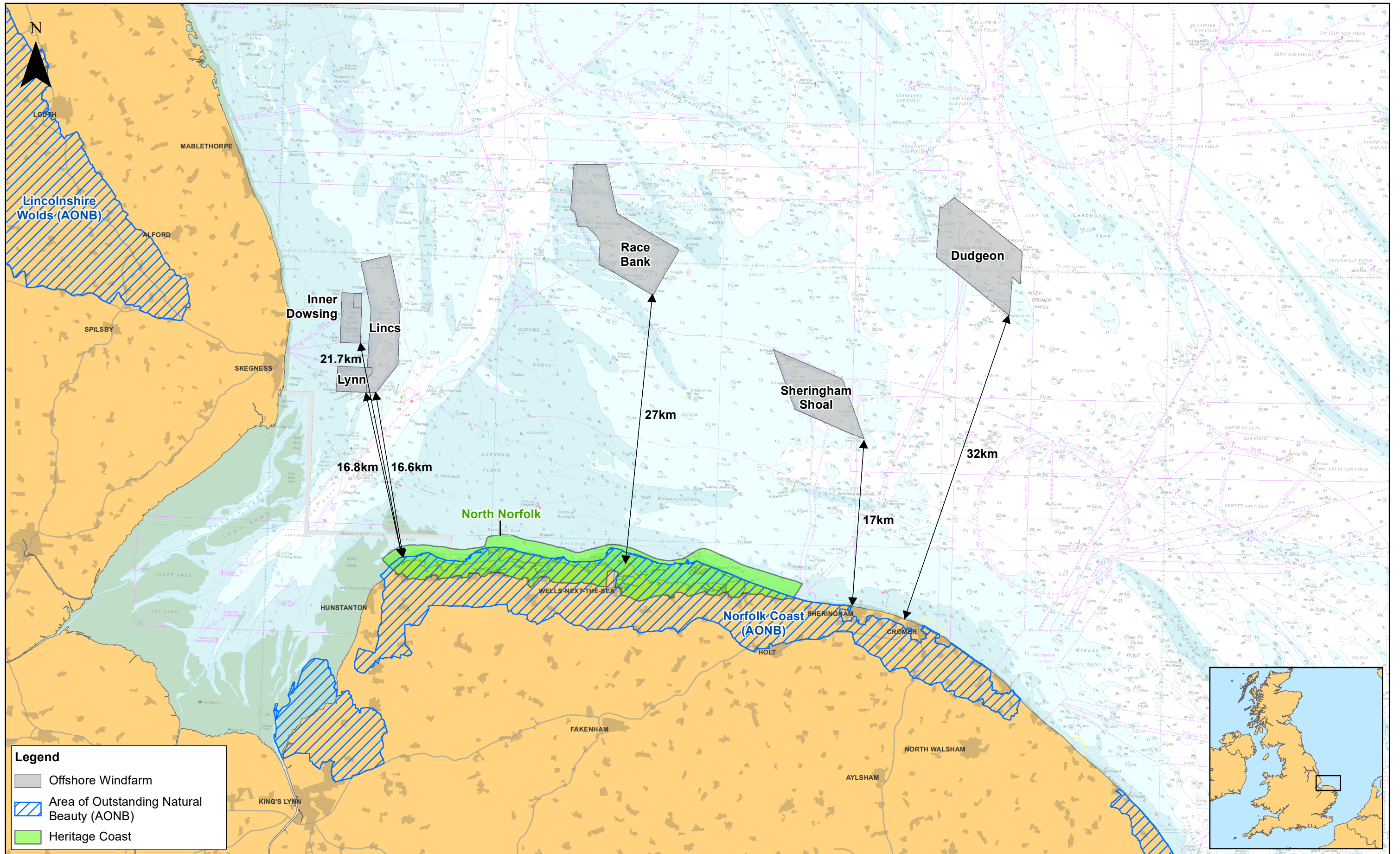
Policy	Summary	Compliance
		<p>28.7.3.1 of ES Chapter 28 Offshore Seascape, Landscape and Visual Amenity and section 29.6 of ES Chapter 29 Landscape and Visual Impact. LCTs are mapped at a detailed scale in ES Figure 28.17.</p> <p>Significant impacts are predicted for LCT 01 Ancient Estate and LCT 07 Estate Sandlands Area 7A (ES Figure 29.7) Claylands during construction and operation on a localised area north of Friston, within approximately 1km around the onshore substation and National grid substation, however this will not impact coastal, estuary or heathland features (section 28.6 of ES Chapter 29 Landscape and Visual Impact). There will be significant impacts to sections of LCT type Coastal Dunes and Shingle Ridges LCT 05 (Area C and D) however these will be short term and temporary (section 28.7.3 of ES Chapter 28 Offshore Seascape, Landscape and Visual Amenity).</p> <p>Natural, historic or man made features across the study area are identified in ES Appendix 24.3 East Anglia TWO and East Anglia ONE North Offshore Windfarms: Onshore Archaeology and Cultural Heritage Desk Based Assessment. Please refer to Table 6.19 Onshore Archaeology and Cultural Heritage Policy Compliance for details on how impacts on these features will be minimised and mitigated.</p>
	<p><i>Proposals should include measures that enable a scheme to be well integrated into the landscape and enhance connectivity to the surrounding green infrastructure and Public Rights of Way network.</i></p>	<p>During construction, there is the potential for recreational activities to be temporarily affected by the proposed East Anglia TWO project temporarily diverting PRoW. All other interactions with public spaces such as playing fields and common land has been avoided through site selection as part of the embedded</p>

Policy	Summary	Compliance
		<p>mitigation for the proposed East Anglia TWO project (see Site Selection).</p> <p>Potential PRoW impacts are considered in section 30.6.1.4 of ES Chapter 30 Tourism, Recreation and Socio-Economics. There is one PRoW in the location of the onshore substations that will require permanent diversion. The route for this diversion has been discussed with the LVIA expert topic group as part of the development of the OLEMS (document reference 8.7) submitted with the DCO application.</p>
	<p><i>Proposals for development should protect and enhance the tranquillity and dark skies across the District. Exterior lighting in development should be appropriate and sensitive to protecting the intrinsic darkness of rural and tranquil estuary, heathland and river valley landscape character.</i></p>	<p>ES Appendix 28.3 Seascape Assessment identifies SCT 03 Nearshore Waters as being susceptible change in relation to the perceived remoteness and tranquillity in some areas. The experience of the seascape is influenced by activities that have changed its inherent character, such as commercial shipping vessels and traffic out to sea, however this nearshore SCT tends to be more influenced by the coastal character than the more distant seaward character (which reduces its susceptibility). Please refer to response given for SDCC Core Strategy and Development Management Plan, DM26, Lighting in this compliance Table for information on how the proposed East Anglia TWO project will affect tranquillity and dark skies across the district.</p>
	<p><i>Neighbourhood Plans may include local policies related to protecting and enhancing landscape character and protecting and enhancing tranquillity and dark skies.</i></p>	<p>Please refer to response above regarding protecting and enhancing tranquillity and dark skies.</p>

Policy	Summary	Compliance
SCLP11.1 - Design Quality	<p><i>The Council supports design which is innovative and which promotes inclusivity across the District. Development proposals will be expected to demonstrate high quality design which reflects local distinctiveness and character.</i></p> <p><i>In so doing, permission will be granted where proposals:</i></p> <p><i>Demonstrate a clear understanding of the form and character of the built and natural environment and use this understanding to complement local character and distinctiveness;</i></p>	<p>The selected onshore substation location demonstrates a clear understanding of the form and character of the built and natural environment.</p> <p>Consideration has been taken through avoiding all international, national, county and local landscape designations (ES Chapter 21 Land Use, 22 Onshore Ecology and Chapter 24 Archaeology and Cultural Heritage).</p>
	<p><i>Take account of any important landscape or topographical features and retain and/or enhance existing landscaping and natural and semi-natural features on site;</i></p>	<p>Mitigation around the onshore substation and National Grid substation site has been developed in consultation with the LVIA expert topic group as shown in the OLEMS (document reference 8.7) submitted with the DCO application.</p> <p>This plan has incorporated the reinstatement of historic hedgerow features lost to agriculture which will restore elements of the historic setting around Friston.</p>
	<p><i>Provide highway layouts with well-integrated car parking and landscaping which create a high quality public realm, avoiding the perception of a car dominated environment; and</i></p>	<p>Improvements to the highway with well-integrated car parking and landscaping at the substation site are detailed in ES Chapter 26 Traffic and Transport.</p>
	<p><i>Include hard and soft landscaping schemes to aid the integration of the development into its surroundings.</i></p>	<p>Mitigatory landscaping is included in section 29.3.4 of ES Chapter 29 Landscape and Visual Impact Assessment.</p>
WDC Local Plan		
WLP8.35 Landscape Character	<p><i>Proposals for development should be informed by, and be sympathetic to, the distinctive character areas, strategic objectives and considerations identified in the Waveney District Landscape Character Assessment (2008), the Settlement Fringe</i></p>	<p>Effects on The Broads were screened out, therefore this guidance is not relevant</p>

Policy	Summary	Compliance
	<p><i>Landscape Sensitivity Study (2016), the Broads Landscape Character Assessment (2016) and the Broads Landscape Sensitivity Study for Renewables and Infrastructure (2012).</i></p> <p><i>Development proposals will be expected to demonstrate their location, scale, form, design and materials will protect and where possible enhance:</i></p> <p><i>The special qualities and local distinctiveness of the area;</i></p> <p><i>The visual and historical relationship between settlements and their landscape settings;</i></p> <p><i>The pattern of distinctive landscape elements such as watercourses, commons, woodland trees, (especially hedgerow trees) and field boundaries, and their function as ecological corridors; and</i></p> <p><i>Visually sensitive skylines, seascapes and significant views towards key landscapes and cultural features.</i></p> <p><i>Proposals should include measures that enable a scheme to be well integrated into the landscape and enhance connectivity to the surrounding green infrastructure and Public Rights of Way network.</i></p>	<p>Please refer to responses provided above for SCDC Local Development Plan, SCLP10.3 – Landscape Character.</p>
Shoreline Management Plan 7 – Lowestoft Ness to Felixstowe Landguard Point		
<p>Suffolk SMP2 Sub-cell 3c – Dunwich Cliffs to Thorpeness</p>	<p><i>Stakeholder objectives of this policy are to:</i></p> <p><i>To maintain or enhance the high quality landscape;</i></p>	<p>Dunwich Cliffs to Thorpeness is classified as Coastal Levels LCT (ES Figure 28.12). This LCT is also one of the main LCT's that make up the Suffolk Coast and Heaths AONB. No significant impacts are predicted on landscape character for Coastal Levels LCT 06 (section 28.7.3.1 of ES Chapter 28 Offshore</p>

Policy	Summary	Compliance
		<p>Seascape, Landscape and Visual Amenity) and therefore the objective of this section of the SMP will not be undermined.</p>



Legend

- Offshore Windfarm
- Area of Outstanding Natural Beauty (AONB)
- Heritage Coast



Rev	Date	By	Comment
1	05/09/2019	FC	First Issue.

Scale @ A3
 1:350,000
 0 5 10 20 Km

Prepared: FC
 Checked: TF
 Approved: PP

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 To the fullest extent permitted by law, we accept no responsibility or liability (whether in contract, tort (including negligence) or otherwise) in respect of any errors or omissions in the information contained in the map and shall not be liable for any loss, damage or expense caused by such errors or omissions.

East Anglia TWO

Consented Offshore Windfarms, North Norfolk and The Wash

Drg No	EA2-DEV-DRG-IBR-001024	
Rev	1	Datum: WGS 1984 Projection: Zone 31N
Date	05/09/19	
Figure	6.1	

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6.24 Tourism, Recreation and Socio-Economics

328. Compliance with policies relating to tourism, recreation and socio-economics are presented in **Table 6.24**. Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 30 Tourism, Recreation and Socio-Economics**. Where other chapters are relevant these have also been signposted.
329. East Anglia TWO Limited considers that the proposed East Anglia TWO project accords with policies set out in **Table 6.24** below in relation to Tourism, Recreation and Socio-Economics.

Table 6.24 Tourism, Recreation and Socio-economics Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.12.6	<i>The IPC should have regard to the potential socio-economic impacts of new energy infrastructure identified by the applicant and from any other sources that the IPC considers to be both relevant and important to its decision.</i>	<p>The potential socio-economic impacts at local and regional levels have been assessed in section 30.6 of ES Chapter 30 Tourism, Recreation and Socio-economics. Consideration of the impacts on the local and regional labour market though direct employment and indirect employment through the supply chain, as well as induced employment due to expenditure by people that are directly or indirectly employed, has been undertaken. Assessed impacts range from major beneficial to negligible. No significant adverse impacts are predicted (section 30.10)</p> <p>Potential impacts on tourism are addressed in section 30.6 of ES Chapter 30 Tourism, Recreation and Socio-Economics. This includes includes impacts on local accommodation businesses and their employees (section 30.6.1.3). It is highly likely that non-residential staff would stay overnight and local tourism studies show a clear link between expenditure and employment. Peak demand during the low or high season</p>

Policy	Summary	Compliance
		<p>would not displace tourists and provide additional income to local businesses. This impact is therefore assessed as major beneficial.</p> <p>Section 30.6.1.4 relates to impacts to visitors to the area during construction in terms of disturbance. Recreational assets such as PRoWs, beaches and common land have a low sensitivity to change because this can be managed through appropriate construction management. Tourism assets are considered to have medium sensitivity to change. Either because they are small businesses that are vulnerable to change or because they are medium size businesses that are more resilient but have greater interconnection with other regional tourism businesses. Impact significance is assessed as negligible.</p> <p>Section 30.6.2.2 relates to long term impacts to the local and regional tourism industry during operation. There will be a change to the landscape but there are very few tourism receptors to experience this change. The onshore substation cannot be seen from viewpoints in Suffolk Coasts and Heaths AONB. The construction of wind turbines would have a residual effect on the seascape of the Suffolk coast. However, the change in seascape would be limited to days of very good visibility. For this change to the seascape to have an effect on the tourism industry tourists would need to hold a strong enough opinion of offshore wind turbines that they either do not visit an area or do not return. Although the proposed East Anglia TWO project would have an effect on the seascape of the Suffolk coast studies show that visitors to an area do not hold negative views of this type of development and would not</p>

Policy	Summary	Compliance
		be put off re-visiting an area. Impacts are therefore assessed as negligible.
Section 5.12.7	<i>The IPC may conclude that limited weight is to be given to assertions of socio-economic impacts that are not supported by evidence (particularly in view of the need for energy infrastructure as set out in this NPS).</i>	<p>Socio-economic impacts including potential employment, job creation and training opportunities from both onshore and offshore employment during construction and operation are considered in sections 30.6.2.1 , 30.6.1.2, 30.6.1.3 and of ES Chapter 30 Tourism, Recreation and Socio-economics.</p> <p>The conclusions drawn in the ES are supported by relevant guidance and policy on how to assess impacts. This is described in section 30.4.1.</p> <p>The assessment methodology takes the ‘Sustainable Livelihoods Approach’ which is described further in section 30.4.1.4. To summarise, following guidance developed by various departments of the UK Government an approach considering a basket of goods or services has been used to assess the socio-economic impacts on employment and tourism. First a baseline was developed by considering the five capitals that sustainable communities require (these are described in Plate 30.3 and section 30.5 of ES Chapter 30 Tourism, Recreation and Socio-Economics). Then assessments were developed based on best practice guidance from across social and population impact assessment in combination with economic guidance from HM Treasury, Homes and Communities Agency, and Office for National Statistics.</p>
Section 5.12.8	<i>The IPC should consider any relevant positive provisions the developer has made or is proposing to make to mitigate impacts (for example through</i>	Additional local services are not within the scope of the proposed project. However, part of the scope of the Memorandum of Understanding (MoU), previously agreed

Policy	Summary	Compliance
	<p><i>planning obligations) and any legacy benefits that may arise as well as any options for phasing development in relation to the socio-economic impacts.</i></p>	<p>between the applicant and SCC, includes the provision of career guidance and examples in local educational facilities.</p> <p>With regard to legacy benefits, there are several impacts assessed as being majorly or moderately beneficial as a result of the proposed East Anglia TWO project. These are summarised in section 30.10 of ES Chapter 30 Tourism, Recreation and Socio-Economics as follows:</p> <ul style="list-style-type: none"> • 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. • Local and regional labour market opportunities, supported by existing SPR skills enhancements and long term employment. • These positive impacts remain as beneficial when considered cumulatively with other projects.
National Planning Policy Framework		
<p>Section 6 Building a strong, competitive economy 80</p>	<p><i>Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development.</i></p>	<p>ES Chapter 30 Tourism, Recreation and Socio-economics specifically focusses on understanding the employment opportunity created by the proposed East Anglia TWO project, whether the local labour market would be able to supply this, and if work is ongoing to develop the labour market to enable the supply. This is covered in section 30.6, predicting impacts which range from negligible to major beneficial significance. The beneficial impacts are listed in the response above to EN-1 Section 5.12.8.</p>

Policy	Summary	Compliance
<p>Section 6 Building a strong, competitive economy 83</p>	<p><i>Supporting a prosperous rural economy: Planning policies and decisions should enable the sustainable growth and expansion of all types of business in rural areas, sustainable rural tourism and leisure developments; and the retention and development of accessible local services and community facilities.</i></p>	<p>The pipeline of offshore windfarm projects in the region provides experience and an existing skills base</p> <p>ES Chapter 30 Tourism, Recreation and Socio-economics assesses the impact of the proposed East Anglia TWO project on supply chain businesses and tourism businesses in section 30.6. Timing the project to coincide with off peak tourism season would result in a predicted major beneficial impact during construction. Consideration of long term employment identifies a negligible residual impact due to a predicted low change in visitor numbers or quality of experience.</p>
<p>Section 8 Promoting healthy and safe communities 92</p>	<p><i>To provide the social, recreational and cultural facilities and services the community needs, planning policies and decisions should guard against the unnecessary loss of valued facilities and services, particularly where this would reduce the community's ability to meet its day-to-day needs.</i></p>	<p>The cable route does not directly impact any community infrastructure (such as social, recreational or cultural facilities) as shown in ES Figure 30.2, as such there will be no loss of valued services or facilities.</p> <p>Potential impacts to tourism and recreation are considered in section 30.6.1.4 of ES Chapter 30 Tourism, Recreation and Socio-Economics. Timing of the project to coincide with off peak tourism season predicts a major beneficial impact during construction. Consideration of long term employment identifies a negligible residual impact due to a predicted low change in visitor numbers or quality of experience.</p> <p>Table 27.24 of ES Chapter 27 Human Health shows community facilities/assets within 1km of the proposed onshore development area. These are:</p> <ul style="list-style-type: none"> • Aldringham Court Care Home • Pear Tree Lodge Residential Home

Policy	Summary	Compliance
		<ul style="list-style-type: none"> • Heritage Care at Home Ltd • Smyth House • Coldfair Green Community Primary School • Leiston Primary School • Alde Valley School <p>Noise impacts on these community facilities are assessed as not significant for the general population and for vulnerable groups within the general population (section 27.6.1.1.6). With regards to community facilities such as sports facilities, the onshore cable route will have no direct impacts due to its distance of separation (ES Figures 27.2 and 30.2).</p>
98	<i>Planning decisions should protect and enhance public rights of way.</i>	Please refer to response to EN-1 Section 5.9.10 (Landscape and visual) in Table 6.1 Good Design, Alternatives and Adaption Policy Compliance and EN-1 Section 5.10.20 in Table 6.16 Land Use Policy Compliance regarding PRoWs.
NALEP Norfolk and Suffolk Economic Strategy		
Foreword	<p><i>Building on success of the original 2014 Strategic Economic Plan which delivered more jobs, new businesses and housing. £350 million of government funding has been secured and will be invested in the region by 2021 in a wide range of projects to</i></p> <ul style="list-style-type: none"> • <i>Improve skills;</i> 	<p>Employment has been considered across both construction and operation because, as discussed in ES Chapter 30 Tourism, Recreation and Socioeconomics, the development of the proposed East Anglia TWO project is part of a wider process of developing an offshore wind supply chain in the New Anglia Local Enterprise Partnership (LEP) 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</p>

Policy	Summary	Compliance
		<p>employment. Direct employment by the proposed East Anglia TWO project also creates indirect employment in the supply chain and induced employment due to expenditure.</p>
	<ul style="list-style-type: none"> • <i>Drive innovation;</i> 	<p>Please see response above. Of particular relevance is the development of an offshore wind supply chain in the New Anglia LEP region, thereby stimulating opportunities for innovative services and solutions.</p>
	<ul style="list-style-type: none"> • <i>Support growing businesses; and</i> 	<p>Employment in tourism is generally growing except in Suffolk Coastal where employment levels are relatively static. Tourism in Suffolk Coastal AONB peaks in the summer months and drops in the winter months, this may be limiting the growth in full time equivalent jobs and therefore the project may benefit local hoteliers and restaurateurs through the off-peak season. Overnight visitors tend to spend around £50 per night and day visitors tend to spend more if they are visiting the coast than if they are visiting inland areas. This indicates that the coastal tourism industry would be more sensitive to impacts as they would lose more per head if people were deterred (section 30.5.2.9 of ES Chapter Tourism, Recreation and Socio-Economics).</p> <p>There is evidence that there is significant growth in offshore wind nationally and regionally, that UK supply to meet this demand is growing, and SPR is working with regional stakeholders to facilitate regional growth. Therefore, it can be concluded highly likely that long term employment opportunities would be created in the New Anglia LEP region (section 30.6.2.1 of ES Chapter 30 Tourism, Recreation and Socio-Economics).</p>

Policy	Summary	Compliance
	<ul style="list-style-type: none"> Improve transport and other infrastructure. 	<p>Please refer to EN-1 Section 5.13.6 in Table 6.21 Traffic and Transport Policy Compliance for further information on how the project will impact transport and other infrastructure. Mitigation measures are discussed in order to improve transport flow and minimise associated impacts.</p>
<p>Norfolk and Suffolk 2017 – People and Skills</p>	<p><i>Skill levels and wages are lower than the national average with more jobs in lower paying industries. Focus on continuing to enable local people to access the skills they need to benefit from and drive future growth sectors such as clean energy, digital, life sciences and higher end business services. These will be central to continuing to increase wage levels and living standards</i></p>	<p>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 ES Chapter 30 Tourism, Recreation and Socio-economics. Specific actions include the development of a Skills Strategy and a MoU with SCC for previous SPR projects. The implementation of this MoU has created the skills environment required for the proposed East Anglia TWO project. The pipeline of offshore windfarm projects in the region provides experience and an existing skills base</p>
<p>Our Sectors</p>	<p><i>Identifies nine key sectors where Norfolk and Suffolk have competitive advantages:</i></p> <ul style="list-style-type: none"> Energy; Life Sciences and Biotech; ICT, Tech and Digital Creative; Advanced Agriculture, Food and Drink; Visitor Economy – Tourism and Culture; Financial Services and Insurance; Transport, Freight and Logistics; 	<p>SPR is a platinum sponsor of East of England Energy Group (EEEGR) and is therefore contributing to driving this sector and collaboration forward within the region. SPR has worked with EEEGR to deliver supply chain engagement events in East Anglia as described in ES Chapter 30 Tourism, Recreation and Socio-economics.</p> <p>SPR are also members of the Suffolk Chamber of Commerce and of Norfolk Chamber of Commerce.</p>

Policy	Summary	Compliance
	<ul style="list-style-type: none"> • <i>Construction and Development; and</i> • <i>Advanced Manufacturing and Engineering.</i> <p><i>In terms of Energy: The East of England Energy Zone is unrivalled in the UK for its unique mix of wind power, gas and nuclear energy production. The OrbisEnergy Centre of Excellence and the East of England Energy Group (EEEGR) bring together over 300 energy businesses. The coast around Great Yarmouth and Lowestoft is at the centre of the world's largest market for offshore wind with capital investment in clean energy worth £50 billion planned for the region by 2020.</i></p>	
Priority Themes and Places	<p><i>Driving business growth and productivity by increasing and encouraging connectivity, including investments in physical and digital infrastructure. It also focusses on human aspects by driving inclusion and skills growth through outreach and education programmes in schools, back to work schemes for adults, and the Youth Pledge which offers personal support to young people aged 16-24 to get an apprenticeship, training or work experience or job within three months of leaving education or employment. There is also a wider commitment to investment in the wider community through infrastructure and wellbeing, health and care.</i></p>	<p>The development of the proposed East Anglia TWO project is a part of the development of four offshore windfarms in the New Anglia LEP region that would lead to economic growth.</p> <p>Measures such as the skills and training enhancement strategy will drive inclusion and skills growth through various programmes as described in section 30.3.3 of ES Chapter 30 Tourism, Recreation and Socio-economics. Specific actions include the development of a Skills Strategy and a MoU with SCC for previous SPR projects. The MoU states that both parties will work together to promote employment and re-skilling opportunities and to inform and inspire teachers and students as well as a number of further aims.</p>
Suffolk Coastal District Council Core Strategy and Development Management Policy		
Strategic Policy SP1 – Sustainable Development	<p><i>Achieve a local balance between employment opportunities, housing growth and environmental capacity;</i></p>	<p>Skills and local employment opportunities are described in sections 2.3 and 2.4 of ES Chapter 2 Need for the Project.</p> <p>Nationally the proposed East Anglia TWO project may generate 1,600 to 4,100 full time employment opportunities</p>

Policy	Summary	Compliance
		<p>during the construction period. Within the New Anglia Local Enterprise Partnership (NALEP), up to 300 full time employment opportunities may be created during construction. If there is a commitment to a load out port in NALEP, it is possible that more of the economic benefit from offshore construction staff could be retained in the region (ES Chapter 30 Tourism Recreation and Socio-economics section 30.6.1.2).</p> <p>ES Chapter 30 Tourism, Recreation and Socio-economics Plate 30.1 illustrates how employment opportunities such as those described above are balanced with housing and environmental capacity. The impacts described and associated mitigation in the relating ES chapters demonstrate that this project will not 'overshoot' the zone described as 'the safe and just space for humanity' and 'regenerative and distributive economy'.</p>
SCC: Raising the Bar Strategy 2018-2020		
	<p><i>Suffolk County Council aims to promote young people's progression to higher education, including Higher Apprenticeships and also to improve youth employment rates. This will improve the skills base in the region in line with the Economic Strategy, to support and drive business development and local employment opportunities.</i></p>	<p>The Applicant and SCC have agreed an MoU to promote career opportunities in the offshore wind sector, as described in section 30.3.3.1 of ES Chapter 30 Tourism, Recreation and Socio-economics. The MoU states that both parties will work together to achieve the following aims:</p> <ul style="list-style-type: none"> Promote employment and re-skilling opportunities in the communities most closely associated with the projects and support people into long term, sustainable employment;

Policy	Summary	Compliance
		<ul style="list-style-type: none"> Focus on informing and inspiring teachers, students and those that support the education infrastructure at all levels of participation to encourage people into careers in the energy sector and related industries; Make best use of existing local and national education and skills infrastructures and add value to these where appropriate; Utilise the applicant's existing parent company skills programmes where and when possible and appropriate; and <p>Work in collaboration with the associated supply chain and contracted partners to maximise the benefit of education, skills and employment interventions to the majority of the workforce.</p>
<p>Transforming Suffolk: Suffolk's Community Strategy 2008-2028. Suffolk Strategic Partnership</p>		
<p>Priority 1</p>	<p><i>Being the most innovative and diverse economy in the East of England. By 2028, the aim is to have:</i></p> <ul style="list-style-type: none"> <i>Used Suffolk's unique selling points to capture emerging markets;</i> 	<p>Suffolk is well placed to benefit from the development of offshore wind which can contribute to the regeneration of coastal communities.</p> <p>Please refer to response above to NALEP Norfolk and Suffolk Economic Strategy, Foreword, Support growing businesses. Engagement from SPR with local stakeholders in the NALEP region will ensure that Suffolk's unique selling points (listed above under 'Our Sectors') can be utilised.</p>
	<ul style="list-style-type: none"> <i>Reduced economic inequalities across the county; and</i> 	<p>Nationally the proposed East Anglia TWO project may generate 1,600 to 4,100 full time employment opportunities during the construction period. Within the New Anglia LEP, up to 300 full time employment opportunities may be created</p>

Policy	Summary	Compliance
	<ul style="list-style-type: none"> Improved transport and the infrastructure to support sustainable economic growth. 	<p>during construction, ES Chapter 30 Tourism Recreation and Socio-economics section 30.6.1.2.</p> <p>Additional mitigation measures to improve the transport systems so that they are safe and impacts are minimised are discussed throughout section 26.6 of ES Chapter 26 Traffic and Transport.</p> <p>These relate to SCC’s scheme to replace of the junction of the A12 and A1094 (section 26.6.1.10.2):</p> <ul style="list-style-type: none"> A reduction in the posted speed limit in advance of the junction from 50mph to a 40mph; Provision of enhanced warning signage to better highlight the junction to approaching drivers; and Provision of ‘rumble strips’ and associated slow markings, to provide an audible and visual warning of the hazard to approaching drivers. <p>Section 26.6.1.11.4 describes upgrades/additional mitigation to reduce the potentially adverse impacts associated with closing roads to install proposed East Anglia TWO cables.</p> <p>Section 26.6.1.12.2 describes upgrades/additional mitigation associated with articulated HGVs turning from the A1094 to the B1122.</p> <p>Please refer to answer in row above with reference to use of a load of Port to support sustainable economic growth.</p>
Priority 2	Having learning and skills levels in the top quartile in the country. By 2028, the aim is to have:	The Skills Strategy for East Anglia ONE project included an Assessment of the gaps between now and the future

Policy	Summary	Compliance
	<ul style="list-style-type: none"> • <i>A workforce with the skills to meet the needs of Suffolk's economy.</i> • <i>High aspirations, and opportunities to realise them through quality learning opportunities.</i> 	requirements. SPR is committed to continuing this work and has developed a five-year strategy 'The Skills Strategy' that is regularly redeveloped to enable sustainable employment.
East Suffolk Economic Growth Plan, 2018-23		
Priority 1	<i>This economic growth plan aims to build business confidence and the capacity for investment and growth. Supporting entrepreneurs and entrepreneurship in East Suffolk where the economy is currently dominated by micro and small enterprises. This includes providing small business owners/managers with the skills they need.</i>	The development of the proposed East Anglia TWO project is a part of the development of four offshore windfarms in NALEP region that would have an operational life of at least 25 years. This would provide confidence for business investment.
Priority 2	<i>Encouraging established businesses to invest and grow.</i>	A Skills Strategy and a MoU with SCC was developed for previous SPR projects. The implementation of this MoU has created the skills environment required for the proposed East Anglia TWO project. The pipeline of offshore windfarm projects in the region provides experience and an existing skills base.
Priority 3	<i>Attracting inward investment to East Suffolk, focussed around existing emerging sectors and supply chains. In particular paying attention to seven key sectors which include energy and the visitor economy and cultural sectors. Progress will be measured through the use of Key Performance Indicators.</i>	As evidenced by the development of the Supply Chain Plan for East Anglia ONE, SPR is actively enabling inward investment to the Suffolk region. The pipeline of offshore windfarm projects in the region provides experience and an existing skills base and adds inward investment which will have a moderate beneficial impact cumulatively (section 30.10 of ES Chapter 30 Tourism, Recreation and Socio-Economics).
Suffolk Coastal Local Plan		
SCLP4.2 – New Employment Areas	<i>The council will support the delivery of new employment areas to provide greater site choice and economic opportunities.</i>	Employment opportunities are discussed in sections 30.6.1.1, 30.6.1.2 and 30.6.2.1 of ES Chapter 30 Tourism, Recreation and Socio-economics , predicting impacts ranging from negligible to major beneficial significance. Of most significance

Policy	Summary	Compliance
<p>SCLP4.3 – Expansion and Intensification of Employment Sites</p>	<p><i>Proposals to expand or intensify existing employment areas will be permitted unless:</i></p> <p><i>a) The scale of development would cause an adverse impact on the highway network; or</i></p> <p><i>b) There will be material harm to the environmental sustainability in the area; or</i></p> <p><i>c) The proposed use is not compatible with the surrounding employment uses in terms of car parking, access, noise, odour and other amenity concerns; and</i></p> <p><i>d) Potential adverse impacts cannot be successfully mitigated</i></p>	<p>is that a major beneficial impact is predicted for the delivery of new employment in the New Anglia LEP region.</p> <p>The development of the proposed East Anglia TWO project is a part of the development of four offshore windfarms in New Anglia LEP area that would have an operational life of at least 25 years.</p> <p>There will be no significant adverse impacts on the highway network (please see response to EN-1 section 5.13.6 in Table 6.21).</p> <p>Further detail regarding car parking and access is provided in the Outline CTMP which has been submitted as part of the DCO application (document reference 8.9) which includes:</p> <ul style="list-style-type: none"> • Details of measures to be adopted to ensure that the traffic demand forecasts are not exceeded; • The mitigation measures to be adopted to manage the traffic and transport impacts; • Travel plan measures to manage construction employee movements; and • Details of the proposed access works and traffic management.
<p>SCLP6.1 – Tourism</p>	<p><i>Seeks to manage tourism across the district in a way that protects the features that make it attractive to visitors, and supports local facilities where the local road network has the capacity to accommodate the traffic generated from proposals.</i></p>	<p>Existing tourism assets are detailed in section 30.5, potential impacts to these assets are described in section 30.6 and 30.7 of ES Chapter 30 Tourism, Recreation and Socio-economics. The onshore cable route does not directly impact any community infrastructure (such as social, recreational or</p>

Policy	Summary	Compliance
	<p><i>Seeks to improve the visitor experience by developing the tourist opportunities both in and out of season, as well as those less sensitive areas of the District where increased tourism uses can be accommodated.</i></p>	<p>cultural facilities) as shown in ES Figure 30.2, as such there will be no loss of valued services or facilities.</p> <p>The Applicant's commitment to using HDD removes impacts to the coastal path and beaches. The project will be timed to avoid peak tourist season. Residual impacts to tourism are expected to be a major beneficial impact to local accommodation businesses and their employees and of negligible significance in terms of disturbance to visitors to the area surrounding the project during construction. Long term impacts are considered to be negligible due to a predicted low change in visitor numbers or quality of experience.</p>
<p>SCLP6.6 – Existing Tourist Accommodation</p>	<p><i>Existing tourist accommodation will be protected.</i></p>	<p>Existing tourism accommodation assets are detailed in section 30.5 of ES Chapter 30 Tourism, Recreation and Socio-economics, there are 22 accommodation businesses located within a 1km radius of the proposed onshore development area and 2,107 accommodation businesses located within a 45 minute drive from the proposed onshore development area. Potential impacts to these assets are described in section 30.6 and 30.7, timing of the project to coincide with off peak tourism season predicts a major beneficial impact during construction. Consideration of long term employment identifies a negligible residual impact due to a predicted low change in visitor numbers or quality of experience.</p>
<p>SCLP8.1 – Community Facilities and Assets</p>	<p><i>Proposals for new community facilities and assets will be supported if the proposal meets the needs of the local community, is of a proportionate scale, well related to the settlement which it serves and would not adversely affect existing facilities that are easily accessible and available to the local community.</i></p>	<p>The onshore infrastructure does not directly impact any community infrastructure (such as social, recreational or cultural facilities) as shown in ES Figure 30.2, there will be no loss of valued services or facilities.</p>

Policy	Summary	Compliance
	<p><i>Proposals to change the use, or redevelop for a non-community use, a facility registered as an asset of community value, will not be permitted.</i></p> <p><i>Proposals to change the use, or redevelop for a different use, a community facility which is not registered as an asset of community value, will only be permitted if:</i></p> <p><i>a) It can be demonstrated that there is no community need for the facility and the building or the site is not needed for an alternative community use;</i></p> <p><i>b) It can be demonstrated that the current, or alternative community uses are not viable and marketing evidence is provided which demonstrates the premises have been marketed for a sustained period of 12 months in accordance with the Commercial Property Marketing Guidance;</i></p> <p><i>Or</i></p> <p><i>c) Development would involve the provision of an equivalent or better replacement community facility either on site or in an alternative location in the vicinity that is well integrated into the community and has equal or better accessibility than the existing facility which meets the needs of the local population</i></p>	<p>Community impacts are addressed in ES Chapter 27 Human Health.</p>
WDC - Renewable Energy and Sustainable Construction – Supplementary Planning Document (September 2013)		
DM03 – Low Carbon and Renewable Energy	<p><i>Renewable energy schemes will be permitted...And wider environmental, economic and social and community benefits must outweigh any potentially adverse effects.</i></p>	<p>On balance, as summarised in section 30.10 of ES Chapter 30 Tourism, Recreation and Socio-Economics, the proposed East Anglia TWO project is predicted to bring about benefits to the national, regional and local labour market (assessed as moderate beneficial). Tourism / hospitality enhancement for local accommodation businesses and their employees is assessed as major beneficial. No significant adverse impacts are predicted.</p>

Policy	Summary	Compliance
Shoreline Management Plan 7 – Lowestoft Ness to Felixstowe Landguard Point – Suffolk SMP2 Sub-cell 3c – Dunwich Cliffs to Thorpeness		
Suffolk SMP2 Sub-cell 3c – Dunwich Cliffs to Thorpeness	<p><i>Stakeholder objectives of this policy are to:</i></p> <p><i>To maintain the tourism interest of this area; To maintain biological and geological features in a favourable condition, subject to natural change, and in the context of a dynamic coastal environment; and</i></p> <p><i>To maintain in a sustainable manner Thorpeness as a viable coastal settlement and tourist destination, recognising its cultural and heritage significance; and</i></p> <p><i>To promote ways to maintain access to and along the coastal path.</i></p> <p><i>To maintain a range of recreational activities along the foreshore.</i></p>	<p>Potential impacts to tourism assets are described in section 30.6 and 30.7 of ES Chapter 30 Tourism, Recreation and Socio-economics. Residual impacts to tourism / hospitality are expected to be a major beneficial impact to local accommodation businesses and their employees and of negligible significance in terms of disturbance to visitors to the area surrounding the project during construction. Long term impacts are considered to be negligible due to a predicted low change in visitor numbers or quality of experience.</p> <p>The Applicant's commitment to using HDD removes impacts to the coastal path and beach at Thorpeness. Impacts to Thorpeness and Sizewell beach would therefore be limited to indirect impact during drilling.</p>
East Inshore and East Offshore Marine Plans		
Objective 2	<i>To support activities that create employment at all skill levels, taking account of the spatial and other requirements of activities in the East marine plan areas.</i>	This is the high-level objective, reflective of the Marine Policy Statement and is underpinned by the specific policies EC2 in the row below.
EC2	<i>Proposals that provide additional employment benefits should be supported, particularly where these benefits have the potential to meet employment needs in localities close to the marine plan areas.</i>	Potential employment benefits from the proposed East Anglia TWO project are described in response to Suffolk Coastal Local Plan, SCLP4.2 – New Employment Areas in this Compliance Table .
Objective 3	<i>To realise sustainably the potential of renewable energy, particularly offshore wind farms, which is likely to be the most significant transformational economic activity over the next 20 years in the East</i>	This is the high-level objective, reflective of the Marine Policy Statement and is underpinned by the specific policies EC3 in the row below.

Policy	Summary	Compliance
	<i>marine plan areas, helping to achieve the United Kingdom's energy security and carbon reduction objectives.</i>	
EC3	<i>Proposals that will help the East marine plan areas to contribute to offshore wind energy generation should be supported.</i>	A full breakdown of how the proposed East Anglia TWO project will contribute towards the objectives underpinning increased offshore wind generation is provided in <i>Need and the Case for the Development.</i>

7 Mitigating the Development

7.1 Introduction

330. This section considers the two principal sets of provisions which would be put in place to mitigate any impacts of the proposed project. The application draft DCO Requirements have the effect of conditions of development consent. Requirements control the development and how it is carried out, including for example; requiring various management plans to be approved and implemented, providing the latest date by which a notice to treat may be served, (which commences the process of compulsory acquisition of any plot of land), and the time limit within which land possessed temporarily must be restored. Requirements and how they are drafted are covered in NPS EN-1. The section also considers the Subsidiary Powers Agreement being made under S111 of the Local Government Act 1972, which is analogous to a development consent obligation under S174 of PA2008, and S106 of The Town and Country Planning Act 1990 (TCPA1990). NPS EN-1 sets out policy in relation to development consent obligations.

7.2 Development Consent Order Requirements and Planning Policy

331. Paragraph 4.1.7 of Overarching Energy NPS EN-1, the NPPF and the government's national planning practice guidance establish the need for conditions of any planning permissions to satisfy the six tests set out below. Under the PA2008, conditions of development consents take the form of Requirements within the DCO. As stated in NPS EN-1, the Requirements set out in Part 3 of Schedule 1 of the application draft DCO are therefore expected to meet these tests. Paragraph 55 of the NPPF states that conditions should be kept to a minimum and only imposed where they are:

- *“necessary,*
- *relevant to planning and*
- *to the development to be permitted,*
- *enforceable,*
- *precise and*
- *reasonable in all other respects”.*

332. The tests and how they have been met in the drafting of the application draft DCO requirements are considered below.

7.2.1 Necessary

333. All requirements as drafted in the application draft DCO are necessary because they give effect to the need to secure mitigation measures or to meet other regulatory or policy requirements.
334. Draft requirement 1, specifying the time limit for the exercise of powers of compulsory acquisition contained in the order, is necessary in light of the prescribed period specified in Regulation 6 of The Infrastructure Planning (Interested Parties and Miscellaneous Prescribed Provisions) Regulations 2015 and is in accordance with Section 154(1)(b) and (3)(b) of the PA2008. The limit is necessary to enable a development of the size and complexity of the project to be built out.
335. Draft Requirements 2 to 9 and 12, specifying the detailed offshore and onshore design parameters, are necessary to ensure the development will remain within the parameters of the project as assessed in the environmental impact assessment set out in the ES.
336. Draft Requirements 10 and 30, requiring submission of an offshore and an onshore decommissioning scheme respectively, is necessary to ensure that the scope of activities falls within what was originally assessed under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, that they can be adequately financed by the Applicant and approved by the local planning authority.
337. Draft Requirement 11, requiring stages of the onshore development to be defined, submitted and approved, is necessary to ensure that the necessary mitigation measures can be applied, and through the DCO secured, in respect of relevant stages of the works.
338. Draft Requirements 13 to 29 and 31 to 38, requiring the submission of management plans, schemes and other matters, are necessary to give effect to mitigation, which itself is necessary by virtue of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, and to give effect to other legislative requirements.
339. Draft Requirement 39, requiring approvals to be in writing is necessary to ensure requirements are clearly and precisely discharged.
340. Draft Requirement 40, setting out the process for amendments to approved details is necessary to ensure that a clear process exists to amend agreed details.

7.2.2 Relevant to Planning

341. All draft requirements reflect and secure relevant planning policy, guidance or legislative provisions applicable under PA2008 as set out above and are therefore all relevant to planning.

7.2.3 Relevant to the Development to be Permitted

342. All the application draft DCO requirements directly secure the delivery of elements and aspects of the application project and are therefore relevant to it.

7.2.4 Enforceable

343. Draft Requirement 1 is enforceable because it sets a time limit beyond which the authorised development may not be carried out.

344. Draft Requirements 2 to 9 and 12, specifying the detailed offshore and onshore design parameters are enforceable because they specify dimensional limits and are compliance conditions.

345. Draft Requirements 23 and 24 are enforceable because they specify construction hours, save in relation to certain specified activities, and are compliance conditions.

346. Draft Requirement 29 is enforceable because it requires the restoration of land within a given timescale and is a compliance condition.

347. Draft Requirement 31 is enforceable because it specifies the aviation lighting requirements that must be met and is a compliance condition.

348. All remaining draft requirements are submission conditions, requiring the submission of details and/or documents to the relevant planning authority. These are all enforceable because Draft Requirement 40 requires that in relation to all requirements, approval is necessary for such details (for example management plans and schemes), and because this requirement states that in every case “the approved details must be carried out as approved”. In addition, Draft Requirements 11, 13, 15 to 30 and 32 to 36 all include implementation clauses.

7.2.5 Precise

349. All application draft requirements specify the exact nature of the submission to be made and/or the precise limits with which compliance is required. As a result, all application draft requirements are precisely worded.

7.2.6 Reasonable

350. All application draft requirements derive from model provisions, example planning conditions in the Annex to Circular 11/95 (as accords with paragraph 4.1.7 of NPS EN-1 relating to the Circular) and/or similar provisions in other Orders. They are therefore considered as acceptable in terms of being

reasonable, since they, or similar requirements, have been made as part of other Orders.

8 Conclusion

351. This Statement has set out the East Anglia TWO Project as set out in the DCO application, the background and context of the development and the legal and policy context within which it will be examined and decided.
352. Key NPS policies require that the benefits of and need for the project are taken into account.
353. As established in section **5 Project Need, the Case for and Benefits of the Development**, the East Anglia TWO project would make a significant contribution to meeting need, in accordance with policy set out in Part 3 of NPS EN-1. Specifically, as a result of the proposed East Anglia TWO project, this application:
- Meets need in the UK for the types of energy infrastructure covered by EN-1, and will meet approximately 4% of the UK's current cumulative electricity supply deployment target for 2030, enough for 800,416 households, necessary in order to achieve energy security at the same time as dramatically reducing greenhouse gas emissions (paragraph 3.1.1);
 - Is promoted as a renewable energy project by industry in accordance with EN-1 policy that it is for industry to propose new energy infrastructure projects within the strategic framework set by Government, and in which it is not considered appropriate for planning policy to set targets for or limits on different technologies (paragraph 3.1.2), notwithstanding the project would contribute to the delivery of the 33GW of renewable energy envisaged in NPS EN1 and the ambition to deliver 30GW of offshore wind by 2030 as set out in the UK Government's Offshore Wind Sector Deal. The scale of this ambition is possible due to the costs of offshore wind falling significantly in the last decade, driven by competitive allocation of support, technological innovation and reductions in the cost of capital due to the risk profile coming down, which has brought benefits to UK energy consumers and enhanced competitiveness which in turn supports the viability of the project²².
 - Should therefore be assessed on the basis that the Government has demonstrated that there is a need for renewable energy infrastructure, that the scale of the need is significantly in excess of what is currently being promoted and that the need for renewable energy is urgent (paragraphs 3.2.3 and 3.4.5 of EN-1); and

²² Page 27 of UK Government Offshore Wind Sector Deal
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790950/BEIS_Offshore_Wind_Single_Pages_web_optimised.pdf

- In accordance with NPS policy the Examining Authority and the Secretary of State should give substantial weight to the contribution which the project would make towards satisfying this need (paragraph 3.1.4 of EN-1).
354. Furthermore, in relation to the benefits of the Project NPS EN1 paragraph 4.1.3 makes clear that in addition to any adverse impacts of a development “*the [Examining Authority and Secretary of State] should take into account its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long term or wider benefits*”.
355. Paragraph 4.1.4 makes clear that: “*These may be identified in this NPS, the relevant technology-specific NPS, in the application or elsewhere (including in local impact reports)*” and paragraph 4.2.2 gives the examples that “*This information could include matters such as employment, equality, community cohesion and well-being*”. The NPS also requires, under individual topic areas, that potential benefits of a development in relation to those areas should be taken into account.
356. The proposed East Anglia TWO project includes significant benefits both embedded within the project including its design, and to be applied through mitigation measures, plans and strategies established under the requirements of the application draft DCO. Below are some of the key benefits of the development, which should be taken into account under NPS policy, some of which address other government policy objectives as well:
- **Meeting the need for energy generation:** as set out in **section 5** and in overall terms meeting approximately 4% of the UK’s current cumulative deployment target for 2030;
 - **Carbon dioxide emissions reduction:** During its operation, the East Anglia TWO project 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 the year 2050 must be lower than the 1990 baseline is increased from 80% to 100%, achieving this target is key to the UK’s Paris 2015 Commitments, which pledged to achieve at least a 40% domestic reduction in greenhouse gases by 2030, compared to 1990 levels (European Commission 2017b) and the proposed East Anglia TWO project would contribute significantly towards these targets and provide the key incentive for establishment of the former East Anglia Zone, and subsequently the proposed East Anglia TWO project, hence a key benefit of the project is its delivery against CO₂ reductions targets;

- **Meeting internationally agreed targets for renewable energy:** in line with the Kyoto Protocol (see **section 4.1.4**), and under the Renewable Energy Directive (2009/28/EC), the UK has an established target of 20% of energy to come from renewable sources by 2020, at present whilst UK renewable energy has soared to around 28% of electricity generation (BEIS 2019b), its share as a percentage of the Directive's gross final energy consumption (i.e. all energy consumption not just electricity)²³ is at 10.2%, some way short of the 2020 target, European energy policy recognises that the use of renewable energy contributes significantly to limiting climate change and plays a part in securing energy supply as well as creating employment in Europe;
- **Biodiversity:** paragraph 5.3.6 of NPS EN 1 expands on the benefits of carbon emissions reductions in the area of biodiversity, stating that the Examining Authority/SoS "*should take account of the context of the challenge of climate change: failure to address this challenge will result in significant adverse impacts to biodiversity....The benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests*", the contribution of meeting 4% of the UK's current cumulative electricity supply deployment target for 2030, and the displacement of an equivalent proportion of energy supply coming from fossil fuel burning sources, is a demonstrable benefit for biodiversity and should be taken into account;
- **Socio-economic and local businesses:** an increased use of local accommodation and businesses during off peak season for tourism is also included in **section 30.6** of ES **Chapter 30 Tourism, Recreation and Socio-Economics** as a benefit of the project, as outlined above. As context for these benefits, SPR (of which the Applicant, East Anglia TWO Limited 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 the £25Million 30 year contract with the Port of Lowestoft involving awards of contracts worth £10million;

²³ Gross final renewable energy consumption is the amount of renewable energy consumed for electricity, heating and cooling, and transport in the EU Member States with actual and normalised hydropower and wind power generation [1], and expressed as the share of gross final energy consumption. The indicator was developed to measure the EU's progress towards achieving the 2020 and 2030 objectives on renewable energy. RED (Directive 2009/28/EC) commits the EU to reaching a 20 % share of renewable energy in gross final energy consumption [2] by 2020, and a 10% share of RES-T by the same year. It sets binding national targets for renewable energy consumption by 2020 and prescribes minimum indicative trajectories for each country in the run-up to 2020 to ensure that national 2020 targets will be met.

- **Employment and socio-economic:** ES *Chapter 30 Tourism, Recreation and Socio-Economics* also significantly establishes that employment benefits of the project range from negligible to major beneficial, creating 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;
 - **Skills and investment:** similarly, examples of skills benefits already established by the EA1 and EA3 Projects include Scottish Power Foundation Masters Scholarships, sponsorship of the International Festival of Learning East and the partnership with the Cambridge Science Centre to promote Science, Technology, Engineering and Mathematics subjects to more than 6,000 schoolchildren, regional and local labour market benefits of the project are predicted as moderate in *section 30.6* of ES *Chapter 30 Tourism, Recreation and Socio-Economics* constituting further evidence of significant legacy benefits of the project, which should be taken into account under paragraph 5.12.8 of NPS EN1;
 - **Marine archaeology:** Impacts on heritage assets include positive benefits such as perceptions of naval battlefields and other heritage assets. This is detailed in *Table 6.11 Marine Archaeology and Cultural Heritage Policy Compliance* below addressing paragraph 5.8.3 of NPS EN-1 and in *section 16.10* of ES *Chapter 16 Marine Archaeology and Cultural Heritage*. These benefits should be taken into account, and
 - **Transition to a low carbon economy:** In line with the Low Carbon Transition Plan (2009) and the UK Government Carbon Budgets (European Commission 2017b) 2016, one of the key drivers of the policies and UK Government initiatives which support the development of renewable energy in the UK, Europe and further afield, is the recognition of the need to transition to low carbon economies. The generation of utility-scale quantities of electricity from renewable energy sources, such as the East Anglia TWO project, will have a significant impact on meeting these policy objectives.
357. Mitigation measures also include benefits. The **OLEMS** (document reference 8.7) for example will provide benefits through consultation and involvement of the local community to optimise the effectiveness of detailed landscaping proposals.
358. This Statement furthermore establishes the accordance of the proposed East Anglia TWO project with NPS policy in all respects. Where minor adverse or similar impacts are identified in the application, these are in no case significant enough to constitute a conflict with such policy.
359. In addition, the proposed Requirements in the application draft DCO are considered to be in accordance with NPS policy.

360. The proposed East Anglia TWO project 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 TWO project has the potential to make a substantial contribution to UK 2030 energy targets by meeting 4% of the UK's current cumulative electricity supply deployment target for 2030 (CCC 2018). Moreover, the proposed East Anglia TWO project would have a direct positive benefit by providing up to 900MW of renewable energy, securing renewable energy supply for up to 800,416 UK households. The proposed East Anglia TWO project would reduce carbon emissions and contribute to the economy by providing socio-economic and other benefits that should be taken into account under NPS and other Government policies and legislation.
361. For all the above reasons the Examining Authority can conclude that the proposed East Anglia TWO project would bring significant benefits under a range of national, international and local policy considerations, would be in accordance with relevant NPSs and legislation, and:
- Would not lead to the UK being in breach of any of its international obligations;
 - Would not lead to the SoS being in breach of any duty imposed on the SoS by or under any enactment;
 - Would not be unlawful by virtue of any enactment;
 - Can be satisfied that the benefits of the proposed development outweigh any adverse impacts';
 - That there is no condition prescribed for deciding the application otherwise than in accordance with the relevant NPSs; and
 - That under the terms of S104 PA2008 the development should therefore be consented.

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