

East Anglia TWO Offshore Windfarm

Appendix 28.5 **Visual Assessment**

Environmental Statement Volume 3

Applicant: East Anglia TWO Limited
Document Reference: 6.3.28.5
SPR Reference: EA2-DWF-ENV-REP-IBR-000920_005 Rev 01
Pursuant to APFP Regulation: 5(2)(a)

Author: Royal HaskoningDHV
Date: October 2019
Revision: Version 1

Revision Summary				
Rev	Date	Prepared by	Checked by	Approved by
01	08/10/2019	Paolo Pizzolla	Julia Bolton	Helen Walker

Description of Revisions			
Rev	Page	Section	Description
01	n/a	n/a	Final for Submission

Table of Contents

28.5	Visual Assessment	1
28.1	Potential Impacts during Construction, Operation and Decommissioning	1
28.2	Potential Impacts during Construction, Operation and Decommissioning – Technical Assessment	13

Appendix 28.5 is supported by the tables listed below.

Table Number	Title
Table A28.1	Preliminary Assessment of Viewpoints
Table A28.2	Preliminary Assessment of Settlements
Table A28.3	Preliminary Assessment of Main Transport Routes
Table A28.4	Preliminary Assessment of Main Recreational Routes

Glossary of Acronyms

AONB	Area of Outstanding Natural Beauty
cd	Candela
ETG	Expert Topic Group
LCT	Landscape Character Type
NCNR	National Cycle Network Route
OS	Ordnance Survey
RCNR	Regional Cycle Network Route
SAR	Search and Rescue
SLVIA	Seascape and Landscape Visual Impact Assessment
ZTV	Zone of Theoretical Visibility

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 onshore development area and the offshore development area (described as the 'order limits' within the Development Consent Order).
East Anglia TWO project	The proposed project consisting of up to 75 wind turbines, up to four offshore electrical platforms, up to one offshore 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.
National electricity grid	The high voltage electricity transmission network in England and Wales owned and maintained by National Grid Electricity Transmission
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.
Evidence Plan Process (EPP)	A voluntary consultation process with specialist stakeholders to agree the approach to the EIA and the information required to support HRA.
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.
Landfall	The area (from Mean Low Water Springs) where the offshore export cables would make contact with land, and connect to the onshore cables.
Landscape character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Landscape effects	Effects on the landscape as a resource in its own right.
Meteorological mast	An offshore structure which contains metrological instruments used for wind data acquisition
Monitoring buoys	Buoys to monitor in situ condition within the windfarm, for example wave and metocean conditions.
Marking buoys	Buoys to delineate spatial features / restrictions within the offshore development area.
Offshore cable corridor	This is the area which will contain the offshore export cables between offshore electrical platforms and landfall.

Offshore development area	The East Anglia TWO windfarm site and offshore cable corridor (up to Mean High Water Springs).
Offshore electrical infrastructure	The transmission assets required to export generated electricity to shore. This includes inter-array cables from the wind turbines to the offshore electrical platforms, offshore electrical platforms, platform link cables and export cables from the offshore electrical platforms to the landfall.
Offshore electrical platform	A fixed structure located within the windfarm area, containing electrical equipment to aggregate the power from the wind turbines and convert it into a more suitable form for export to shore.
Offshore export cables	The cables which would bring electricity from the offshore electrical platforms to the landfall. These cables will include fibre optic cables.
Offshore infrastructure	All of the offshore infrastructure including wind turbines, platforms, and cables.
Offshore platform	A collective term for the offshore construction, operation and maintenance platform and the offshore electrical platforms.
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.
Seascape	Landscapes with views of the coast or seas, and coasts and adjacent marine environments with cultural, historical and archaeological links with each other.
Visual amenity	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating or travelling through an area.
Visual effects	Effects on specific views and on the general visual amenity experienced by people.

This page is intentionally blank.

28.5 Visual Assessment

28.1 Potential Impacts during Construction, Operation and Decommissioning

1. A preliminary assessment of the visual receptors and viewpoints in the study area has been undertaken using Zone of Theoretical Visibility (ZTV) analysis (**Figure 28.19**) and site surveys, to identify which of the visual receptors and viewpoints are likely to be affected by the East Anglia TWO windfarm site. This preliminary assessment is presented in **Table A28.1** to **Table A28.4** below, which identify the visual receptors and viewpoints that have the potential to undergo significant effects as a result of the East Anglia TWO windfarm site and are required to be assessed in full; and those that do not have potential to undergo significant effects that can be scoped out of further assessment.

28.1.1 Preliminary Assessment – Viewpoints

2. A preliminary assessment of the agreed representative viewpoints (**Figure 28.5**) within the study area is presented in **Table A28.1**. Consultations with the Expert Topic Group (ETG) (consisting of representatives from Suffolk County Council, Suffolk Coastal District Council, Waveney District Council¹, Great Yarmouth Borough Council, the Broads National Park, Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) unit, Natural England and Historic England) have been ongoing and the agreement of viewpoint locations for use in the Seascape and Landscape Visual Impact Assessment (SLVIA) has been reached following consideration of their combined feedback.

¹ Note that on 1st April 2019, East Suffolk Council was created, covering the former districts of Suffolk Coastal District Council and Waveney District

Table A28.1 Preliminary Assessment of Viewpoints

Viewpoint		Distance from East Anglia TWO offshore windfarm site (km)	Distance from turbine layout (km) (Figure 28.1)	Turbines visible	Horizontal angle (°) of turbine layout (Figure 28.1)	Preliminary Assessment
Representative viewpoints						
Suffolk						
1	Lowestoft	37.0	38.0	60	20.2	Potential for significant effects that require further assessment.
2	Kessingland Beach	34.1	35.1	60	23.6	Potential for significant effects that require further assessment.
3	Covehithe	33.0	34.0	60	26.1	Potential for significant effects that require further assessment.
4	Southwold	32.6	33.6	60	28.1	Potential for significant effects that require further assessment.
5	Gun Hill, Southwold	32.6	33.7	60	28.3	Potential for significant effects that require further assessment.
6	Walberswick	33.2	34.3	60	28.4	Potential for significant effects that require further assessment.
7	Dunwich	34.6	35.6	60	28.8	Potential for significant effects that require further assessment.
8	Dunwich Heath & Beach (Coastguard cottages)	34.7	35.7	60	29.4	Potential for significant effects that require further assessment.
9	Minsmere Nature Reserve	35.2	36.2	60	29.2	Potential for significant effects that require further assessment.
10	Sizewell Beach	34.8	35.5	60	30.2	Potential for significant effects that require further assessment.
11	Suffolk Coastal Path, between	34.8	35.4	60	30.4	Potential for significant effects that require further assessment.

Viewpoint		Distance from East Anglia TWO offshore windfarm site (km)	Distance from turbine layout (km) (Figure 28.1)	Turbines visible	Horizontal angle (°) of turbine layout (Figure 28.1)	Preliminary Assessment
	Thorpeness and Sizewell					
12	Thorpeness	35.1	35.5	60	30.2	Potential for significant effects that require further assessment.
13	Aldeburgh	35.9	36.1	60	29.4	Potential for significant effects that require further assessment.
14	Orford Castle	40.4	41.1	60	25.5	Potential for significant effects that require further assessment.
15	Shingle Street	45.8	47.5	60	22.8	Potential for significant effects that require further assessment.
16	Bawdsey	47.4	49.5	60	22.4	Potential for significant effects that require further assessment.
17	Old Felixstowe	52.1	54.6	60	20.8	No potential for significant effects - scoped out of further assessment due to the narrower horizontal angle occupied by the offshore windfarm site, level of screening of the wind turbines behind sea skyline, long distance of the viewpoint (over 50km) and low likelihood of visibility at this distance.
18	Orfordness (Lighthouse)	37.4	38.3	60	27.1	Potential for significant effects that require further assessment.
Norfolk						
19	Hopton-on-sea	43.2	44.1	60	16.3	Potential for significant effects that require further assessment.

Viewpoint		Distance from East Anglia TWO offshore windfarm site (km)	Distance from turbine layout (km) (Figure 28.1)	Turbines visible	Horizontal angle (°) of turbine layout (Figure 28.1)	Preliminary Assessment
20	Gorleston-on-sea	46.4	47.3	60	14.9	Potential for significant effects that require further assessment.
21	Great Yarmouth, South Beach	49.6	50.4	60	13.4	No potential for significant effects - scoped out of further assessment due to the narrower horizontal angle occupied by the offshore windfarm site, level of screening of the wind turbines behind sea skyline, long distance of the viewpoint (over 40km).
22	Caister-on-sea	53.5	54.3	59	12.0	No potential for significant effects - scoped out of further assessment due to the narrower horizontal angle occupied by the offshore windfarm site, level of screening of the wind turbines behind sea skyline, long distance of the viewpoint (over 45km).
Illustrative viewpoints						
A	Southwold Common	33.0	34.1	0	0	Illustrative viewpoints chosen specifically to demonstrate a particular effect or issue; appropriate visualisation produced, but written analysis of the impacts not required for SLVIA.
B	Ness Point, Lowestoft	37.5	38.4	60	19	
C	Corton Holiday Village	40.6	41.6	60	17.5	
D	Southwold Pier	32.4	33.4	60	28.2	
E	Landguard Fort	56.4	59.1	60	19.6	
F	Bawdsey Manor	49.9	52.1	60	21.5	

Viewpoint	Distance from East Anglia TWO offshore windfarm site (km)	Distance from turbine layout (km) (Figure 28.1)	Turbines visible	Horizontal angle (°) of turbine layout (Figure 28.1)	Preliminary Assessment
(Pulmahite Cliffs)					
G North Warren	37.2	37.5	60	28.7	
H River Ore, Suffolk Coastal Path	43.2	44.3	60	23.7	

28.1.2 Preliminary Assessment – Settlements

3. A preliminary assessment of the principal settlement receptors within the study area is presented in **Table A28.2**.

Table A28.2 Preliminary Assessment of Settlements²

Visual receptor	Distance from East Anglia TWO windfarm site (km)	Theoretical visibility of East Anglia TWO windfarm site	Actual visibility of East Anglia TWO windfarm site	Preliminary Assessment
Suffolk				
Aldeburgh	35.8	Widespread area of settlement has high theoretical visibility (51-60 turbines).	Coastal location affords open views from seafront locations. Views from areas of settlement set-back from the immediate seafront are often screened by buildings and vegetation within the urban area.	Potential for significant effects that require further assessment.
Leiston	36.7	Widespread area of settlement has high theoretical visibility (51-60 turbines).	Inland location, substantial intervening screening by vegetation and urban area.	No potential for significant effects - scoped out of further assessment.
Saxmundham	43.6	Limited area of settlement has high theoretical	Inland location, substantial intervening screening by	No potential for significant effects -

² Settlements based on Ordnance Survey (OS) Urban Region Data

Visual receptor	Distance from East Anglia TWO windfarm site (km)	Theoretical visibility of East Anglia TWO windfarm site	Actual visibility of East Anglia TWO windfarm site	Preliminary Assessment
		visibility (51-60 turbines). Majority of settlement has no theoretical visibility.	vegetation and urban area.	scoped out of further assessment.
Halesworth	43.6	Limited area of settlement has high theoretical visibility (51-60 turbines). Majority of settlement has no theoretical visibility.	Inland location, substantial intervening screening by vegetation and urban area.	No potential for significant effects - scoped out of further assessment.
Southwold	32.6	Widespread area of settlement has high theoretical visibility (51-60 turbines).	Coastal location affords open views from seafront locations. Views from areas of settlement set-back from the immediate seafront are often screened by buildings and vegetation within the urban area.	Potential for significant effects that require further assessment.
Beccles	44.6	Limited area of settlement has low theoretical visibility (1-10 turbines). Majority of settlement has no theoretical visibility.	Inland location, substantial intervening screening by vegetation and urban area.	No potential for significant effects - scoped out of further assessment.
Kessingland	33.9	Widespread area of settlement has high theoretical visibility (51-60 turbines).	Coastal location affords open views from seafront locations. Views from areas of settlement set-back from the immediate seafront are often screened by buildings and vegetation within the urban area.	Potential for significant effects that require further assessment.
Lowestoft	36.2	Widespread area of settlement has high theoretical	Coastal location affords open views from seafront locations. Views from areas of settlement	Potential for significant effects that require further assessment.

Visual receptor	Distance from East Anglia TWO windfarm site (km)	Theoretical visibility of East Anglia TWO windfarm site	Actual visibility of East Anglia TWO windfarm site	Preliminary Assessment
		visibility (51-60 turbines).	set-back from the immediate seafront are often screened by buildings and vegetation within the urban area.	
Thorpeness	35.1	Widespread area of settlement has high theoretical visibility (51-60 turbines).	Coastal location affords open views from seafront locations. Views from areas of settlement set-back from the immediate seafront are often screened by buildings and vegetation within the urban area.	Potential for significant effects that require further assessment.
Norfolk				
Great Yarmouth	45.7	Widespread area of settlement has high theoretical visibility (51-60 turbines).	Coastal location affords open views from seafront locations. Views from areas of settlement set-back from the immediate seafront are often screened by buildings and vegetation within the urban area. Settlement located at long distance and has extensive developed coastline with commercial/industrial influences. Aspect and key orientation of views from settlement remains to open sea.	No potential for significant effects - scoped out of further assessment.
Gorleston-on-Sea	45.1	Widespread area of settlement has high theoretical visibility (51-60 turbines).	Coastal location affords open views from seafront locations. Views from areas of settlement set-back from the immediate seafront are often screened by buildings and	No potential for significant effects - scoped out of further assessment.

Visual receptor	Distance from East Anglia TWO windfarm site (km)	Theoretical visibility of East Anglia TWO windfarm site	Actual visibility of East Anglia TWO windfarm site	Preliminary Assessment
			vegetation within the urban area. Aspect and key orientation of views from settlement remains to open sea.	
Bradwell	47.5	Majority of settlement has low theoretical visibility (1-10 turbines), with limited areas of higher theoretical visibility (31-60 turbines).	Inland location, substantial intervening screening by vegetation and urban area.	No potential for significant effects - scoped out of further assessment.

28.1.3 Preliminary Assessment –Transport Routes

4. A preliminary assessment of the main transport routes within the study area is presented in **Table A28.3**.

Table A28.3 Preliminary Assessment of Main Transport Routes

Visual receptor	Distance from East Anglia TWO windfarm site (km)	Theoretical visibility of East Anglia TWO windfarm site	Actual visibility of East Anglia TWO windfarm site	Preliminary Assessment
Suffolk				
A1144	38.1	Long section of road has high theoretical visibility (51-60 turbines).	Views entirely screened by urban areas of Lowestoft, through which the route passes.	No potential for significant effects - scoped out of further assessment.
A1117	37.8	Partial sections of road have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	Views entirely screened by urban areas of Lowestoft, through which the route passes.	No potential for significant effects - scoped out of further assessment.
A146	39.2	Partial sections of road have high theoretical visibility (51-60 turbines) while partial sections have low theoretical	Road passes through inland areas, with substantial screening provided by intervening	No potential for significant effects - scoped out of further assessment.

Visual receptor	Distance from East Anglia TWO windfarm site (km)	Theoretical visibility of East Anglia TWO windfarm site	Actual visibility of East Anglia TWO windfarm site	Preliminary Assessment
		visibility (1-10 turbines) or no visibility.	vegetation and urban areas/development.	
A1145	37.8	Partial sections of road have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	Views entirely screened by urban areas of Lowestoft, through which the route passes.	No potential for significant effects - scoped out of further assessment.
A12	35.9	Partial sections of road have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	Road passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
A144	41.1	Partial sections of road have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	Road passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
A145	38.3	Partial sections of road have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	Road passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
A1095	32.8	Partial sections of road have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	Road passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
A1120	42.7	Partial sections of road have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	Road passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
A1094	35.9	Partial sections of road have high theoretical visibility (51-60 turbines)	Road passes through inland areas, with substantial screening	No potential for significant effects - scoped

Visual receptor	Distance from East Anglia TWO windfarm site (km)	Theoretical visibility of East Anglia TWO windfarm site	Actual visibility of East Anglia TWO windfarm site	Preliminary Assessment
		while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	provided by intervening vegetation and urban areas/development.	out of further assessment.
A1152	47.9	Partial sections of road have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	Road passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
Lowestoft to Ipswich rail line	36	Partial sections of railway line have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	Railway line passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
Lowestoft to Norwich rail line	37.5	Railway line has low theoretical visibility (1-10 or 9-16 turbines).	Railway line passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
Norfolk				
A1243	47.7	Partial sections of road have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	Views entirely screened by urban areas of Lowestoft, through which the route passes.	No potential for significant effects - scoped out of further assessment.
A12	35.9	Road primarily has low theoretical visibility (1-10 turbines) or no theoretical visibility, with short sections of higher theoretical visibility (51-60 turbines).	Road passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
A143	47.4	Partial sections of road have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	Road passes through inland or urban areas, with substantial screening provided by intervening	No potential for significant effects - scoped out of further assessment.

Visual receptor	Distance from East Anglia TWO windfarm site (km)	Theoretical visibility of East Anglia TWO windfarm site	Actual visibility of East Anglia TWO windfarm site	Preliminary Assessment
			vegetation and urban areas/development.	

28.1.4 Preliminary Assessment – Recreational Routes

5. A preliminary assessment of the main recreational routes within the study area is presented in **Table A28.4**.

Table A28.4 Preliminary Assessment of Main Recreational Routes

Visual receptor	Distance from East Anglia TWO windfarm site (km)	Theoretical visibility of East Anglia TWO windfarm site	Actual visibility of East Anglia TWO windfarm site	Preliminary Assessment
Suffolk				
Suffolk Coastal Path	32.6	Partial sections of Suffolk Coastal Path have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	Intermittent/sequential visibility, varying depending on the position of the path relative to the coastal edge, elevation and extent of intervening vegetation screening. Sections following the coastal edge often afford high visibility, but views are also often screened from these sections by shingle features and dunes systems next to the Suffolk Coastal Path. Sections of the Suffolk Coastal Path often extend inland, where it generally affords limited or no visibility, due to intervening forests and vegetation.	Potential for significant effects that require further assessment.
England Coast Path	43.2	Majority of England Coast Path between Lowestoft and Hopton-on-Sea has low theoretical visibility (1-10 turbines) or no visibility.	England Coast Path, between Lowestoft and Hopton-on-Sea passes through coastal/ areas that are substantially influenced by developed coast.	No potential for significant effects - scoped out of further assessment.
National Cycle Network	38.6	Partial sections of NCNR 1 have high theoretical visibility (51-60 turbines) while	NCNR 1 passes through inland areas, with substantial screening provided by intervening	No potential for significant effects - scoped out of

Visual receptor	Distance from East Anglia TWO windfarm site (km)	Theoretical visibility of East Anglia TWO windfarm site	Actual visibility of East Anglia TWO windfarm site	Preliminary Assessment
Route (NCNR) 1		partial sections have low theoretical visibility (1-10 turbines) or no visibility.	vegetation and urban areas/development.	further assessment.
National Cycle Network Route 517	37.4	Majority of NCNR 517 has low theoretical visibility (1-10 turbines) or no visibility.	NCNR 517 passes through coastal/ areas that are substantially influenced by developed coast.	No potential for significant effects - scoped out of further assessment.
Regional Cycle Network Route (RCNR) 31	32.6	Partial sections of RCNR 31 have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	RCNR 31 passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
Regional Cycle Network Route 40	47.8	Majority of RCNR 40 has low theoretical visibility (1-10 turbines) or no theoretical visibility.	RCNR 40 passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
Regional Cycle Network Route 41	39.4	Partial sections of RCNR 41 have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	RCNR 41 passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
Regional Cycle Network Route 42	34.7	Partial sections of RCNR 41 have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	RCNR 41 passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
Norfolk				

Visual receptor	Distance from East Anglia TWO windfarm site (km)	Theoretical visibility of East Anglia TWO windfarm site	Actual visibility of East Anglia TWO windfarm site	Preliminary Assessment
England Coastal Path	43.2	Partial sections of England Coastal Path between Hopton-on-Sea and Great Yarmouth have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	England Coastal Path between Hopton-on-Sea and Great Yarmouth passes through coastal/ areas, which are substantially influenced by developed coast.	No potential for significant effects - scoped out of further assessment.
National Cycle Network Route 517	37.4	Partial sections of NCNR 517 have high theoretical visibility (51-60 turbines) while partial sections have low theoretical visibility (1-10 turbines) or no visibility.	NCNR 1 passes through coastal/ areas, which are substantially influenced by developed coast.	No potential for significant effects - scoped out of further assessment.
Regional Cycle Network Route 30	37.4	Majority of RCNR 31 has low theoretical visibility (1-10 turbines) or no theoretical visibility.	RCNR 30 passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.
Regional Cycle Network Route 31	32.6	Majority of RCNR 30 has low theoretical visibility (1-10 turbines) or no theoretical visibility, with short sections of higher theoretical visibility (51-60 turbines).	RCNR 30 passes through inland areas, with substantial screening provided by intervening vegetation and urban areas/development.	No potential for significant effects - scoped out of further assessment.

28.2 Potential Impacts during Construction, Operation and Decommissioning – Technical Assessment

- A detailed technical assessment of the visual effects of the construction and operation of the offshore infrastructure is set out in the remaining technical assessment section of this appendix. This describes, in full technical detail, the likely significant effects of the East Anglia TWO windfarm site on each visual receptor and viewpoint, assessing those that were identified in the preliminary

assessment in **Table A28.1** to **Table A28.4** as having potential to be significantly affected.

7. Representative viewpoints have been agreed with the SLVIA ETG for all of the principal settlement receptors along the Suffolk and Norfolk coasts in the study area. The visual effects of the construction and operation of the offshore infrastructure on residents of these settlements are therefore assessed alongside each representative viewpoint assessment in **Chapter 28 SLVIA section 28.2.1**.
8. A full technical assessment of the effects of the construction and operation of the offshore infrastructure on users of the Suffolk Coastal Path is provided separately in **Appendix 28.6**.
9. A selection of receptor locations/viewpoints were agreed with the ETG as needing night-time photomontages to illustrate the likely impacts of aviation and marine safety lighting, from Lowestoft, Kessingland, Southwold, Aldeburgh and Felixstowe. These receptors for night-time photo locations were agreed with the ETG based on the locations where people will most likely experience night-time views, i.e. the sea fronts of key settlement receptors. The photomontages from these viewpoints may also help understand the likely effects of aviation lighting in views from other nearby coastal locations.

28.2.1 Viewpoint Assessment

Viewpoint 1: Lowestoft – Visual Assessment				
Designations:	South Lowestoft Conservation Area	Grid reference:	E:654451	N:291813
		Elevation:	2.5m	
Landscape Character Type (LCT)/Seascape Character Type (SCT):	LCT 25 Urban and overlooks SCT04 Developed Nearshore Waters.	View direction:	135°	
		Distance to East Anglia TWO windfarm site:	37km	
		Horizontal angle of turbine layout:	20.2°	
Receptors:	Viewpoint is representative of views experienced by beach users; walkers and cyclists using the Suffolk Coastal Path/esplanade; residents of Lowestoft seafront; tourist visitors to the seafront; people engaged in ‘formal’ recreational amusements at Claremont Pier and people sitting/viewing from seafront benches.			
Baseline description (existing view is shown in Figure 28.25b - 28.25c)				
<ul style="list-style-type: none">• Panoramic view extending north along Lowestoft seafront and esplanade, to take in Claremont Pier, Lowestoft beach and open expanse of the North Sea to the east.• The view takes in the traditional beach resort of Lowestoft seafront and formalised recreational facilities, with sandy beach busy with beach users/bathers in sunny weather, pier/amusements,				

Viewpoint 1: Lowestoft – Visual Assessment

pleasure gardens and wide esplanade with footpath and cycle path, lighting, viewing shelters and seafront benches.

- Victorian 4-5 storey townhouses and villas are aligned along the seafront in linear street plan laid out parallel to the shore, facing out to sea, many of which are in use as hotels.
- Restaurants, leisure uses and car parking sit adjacent to seafront pleasure gardens along the esplanade.
- Sandy beach backed by beach huts, affording active leisure use of the beach for bathing and beach play.
- Busy seascape, with the presence of yachts and recreational sailing boats in nearshore waters being integral to the view. Large commercial vessels form point features on the distant skyline.
- Views east formed by the presence of sandy beach and the North Sea. Inherent simplicity of sea views have been changed by the extended development at the seafront and the busy beach/nearshore waters.
- Industrial and commercial premises are present in view around the harbour to the north, where Lowestoft Ness Point wind turbine is also visible over Claremont Pier.
- Although there is theoretical visibility of the blade tips of Galloper and Greater Gabbard Windfarms, they are scarcely visible and have a negligible influence on the view due to their long distance offshore and limited amount of the blade tips visible.

Value

Medium

- The viewpoint is not located within, nor does it overlook, a nationally designated landscape, but is located in a conservation area and on the Suffolk Coastal Path, which have recognised heritage/recreational value.
- Although it is not a specific viewpoint, as such, there are many facilities provided to aid enjoyment of the sea view, including benches and viewing shelters oriented to the sea.
- The view displays traditional 'beach resort' qualities and interest arising from the interaction of the open, expansive seascape with development and the activities of people at the seafront and nearshore waters.
- Value also derives from the formal planning and development of the seaside resort, with buildings, pleasure gardens and promenades all aligned along the seafront to respond to the sea views.

Sensitivity to change: *Combination of the value of the view and the susceptibility of each visual receptor*

Receptor	Susceptibility to change	Sensitivity to change
Beach users (Lowestoft Beach):	Medium-high	Medium-high
Walkers and cyclists (Suffolk Coastal Path):	Medium-high	Medium-high
Residents of Lowestoft seafront:	High	Medium-high
Visitors engaged in recreational amusements:	Low	Low
People sitting/viewing from seafront benches:	High	Medium-high
Recreational boaters (Lowestoft Marina)	Medium	Medium
Magnitude of change (predicted view is shown in <i>Figure 28.25e</i>):		
Geographic extent:	Long distance	

Viewpoint 1: Lowestoft – Visual Assessment

The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 37km and is located to the south-east of the viewpoint. The view of the East Anglia TWO windfarm site is representative of views from the seafront of the South Beach area of Lowestoft. Views from the North Beach/Ness Point area are shown in Illustrative Viewpoint B (Ness Point) (**Figure 28.48**).

Size/scale of change (construction, operation and decommissioning):	Medium-low
---	------------

- Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.
- The turbines within the East Anglia TWO windfarm site will add a new element layer to the composition of the view, which is currently a relatively simply composed view of sand, sea and sky layers.
- Lateral spread of the East Anglia TWO windfarm site will occupy approximately 20° of the field of view, which is a limited portion of the wider 180° sea view available to the observer. The open sea skyline would remain unaffected across the majority of the field of view out to sea.
- Towers and rotors of the closest turbines particularly those at northern end of the East Anglia TWO windfarm site) will be visible above the skyline, while more distant turbines appear more recessive, with lower towers and rotor blades behind the horizon.
- Vertical height of the turbines will be relatively small / moderate in scale, due to their long distance offshore and the large scale of the seascape in the view.
- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- Although there are notable amounts of visual movement in the view, the movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- Although there is theoretical visibility of the blade tips of Galloper and Greater Gabbard Windfarms, they are scarcely visible and have a negligible influence on the view due to their long distance offshore and limited amount of the blade tips visible.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Beach users (Lowestoft Beach):	Not significant, short-term, temporary	Not significant, long-term, reversible
Walkers and cyclists (Suffolk Coastal Path):	Not significant, short-term, temporary	Not significant, long-term, reversible
Residents of Lowestoft seafront:	Not significant, short-term, temporary	Not significant, long-term, reversible
People engaged in recreational amusements:	Not significant, short-term, temporary	Not significant, long-term, reversible

Viewpoint 1: Lowestoft – Visual Assessment		
People sitting/viewing from seafront benches:	Not significant, short-term, temporary	Not significant, long-term, reversible
Recreational boaters (Lowestoft Marina)	Not significant, short-term, temporary	Not significant, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 37km. Visibility at or beyond this distance occurs approximately 26% of the time, over 10-year period 2007-2017 from Weybourne and 21% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.		
Assessment of night-time visual effects (Viewpoint 1 Lowestoft)		
Baseline description:		
<ul style="list-style-type: none">• The existing night time view from Lowestoft is well lit along the urban seafront in Lowestoft, with housing and hotel lighting, street lighting and lighting of the esplanade along the seafront. Claremont Pier is also lit at night, including buildings and navigational markers on the pier itself.• The open seascape beyond includes occasional visible night-time lighting of cardinal buoys, boats in nearshore waters and distant lights of commercial vessels and rigs form point features on the skyline, which are characteristic in night-time views.• Night-time lighting of Greater Gabbard and Galloper windfarms was not observed to be visible.		
Magnitude of change (night-time) (Figure 28.25f):	Low	
<ul style="list-style-type: none">• The predicted night time view from Viewpoint 1 in Lowestoft is shown in the night-time photomontage representation in <i>Figure 28.25f</i>. The red, medium intensity lights on the nacelle of the perimeter WTGs of the East Anglia TWO windfarm site will be visible above the sea skyline in very good to excellent visibility and will introduce new lighting into a section of the view that currently has some visible lighting as part of the baseline.• All aviation warning lights will flash synchronously throughout the East Anglia TWO windfarm site and will be able to be switched on and off by means of twilight switches.• Aviation warning lights will allow for reduction in lighting intensity at and below the horizontal, when visibility from every wind turbine is more than 5km. The night-time photomontage representation in <i>Figure 28.25f</i> assumes full lighting intensity of the 2000 candela (cd) warning lights in very good to excellent visibility conditions, as a worst-case (and is therefore likely to over-represent the likely visibility of aviation warning lighting experienced in reality).• Marine navigational lights fitted at the platform level (approximately 10m above sea level) on significant peripheral structures will not be visible in the view, as they will be hidden behind the skyline at 37km from the viewpoint by the curvature of the earth.• Search and rescue (SAR) lighting (200cd) of each non-periphery turbine will only be lit when conducting SAR operations in and around the East Anglia TWO windfarm site and are not expected to be visible at 37km. Other low intensity lights, such as for helicopter winching (green hoist lamp) and for illumination of signage (5cd) will not be visible.• The yellow lighting of the construction operation and maintenance platform will be visible at night.		
Significance of effects (night-time):		
Construction and decommissioning:	Not significant, short-term, temporary	

Viewpoint 1: Lowestoft – Visual Assessment	
Operation:	Not significant, long-term, reversible
Assessment of effects on residents of wider Lowestoft settlement	
Representative viewpoints:	Viewpoint 1 Lowestoft (Figure 28.25)
Illustrative viewpoints:	Viewpoint B Ness Point (Figure 28.48)
Sensitivity to change:	
Residents of Lowestoft:	Medium-high
Magnitude of change	
<p>Lowestoft is the most easterly town in England and a popular seaside holiday destination. It is split in two by the inland water body of Lake Lothing and this along with the harbour area is a focus of commercial development, some of which is associated with the renewables industry. The town has long and wide beach with two piers and several tourist attractions along the frontage, often set back from the coast by gardens/parks and car parks. The main town centre is set back from the coast beyond the harbour area with the main street running parallel to the coast. Large residential areas spread along the coast and inland to the edge of the Norfolk Broads and the marshes around the River Waveney. The main approaches to the town are from Great Yarmouth in the north along the A47 and from the south via Kessingland along the A12. These routes run inland from the coast and are separated from it by urban areas, tourist facilities and farmland. Roadside and other vegetation as well as the flat nature of the terrain generally tends to restrict views out to sea.</p> <p>Visibility of the East Anglia TWO windfarm will be largely constrained to the coastal edge rather than other parts of the town or its approaches.</p> <p>Theoretical visibility from Lowestoft is illustrated in the detailed ZTV in Figure 28.25a. The ZTV shows that a widespread area of the settlement has high theoretical visibility, of 51-60 turbines, however from areas of Lowestoft that are set-back from the immediate seafront, views of the East Anglia TWO windfarm site are generally screened by intervening buildings and vegetation within the built-up urban areas of Lowestoft. The ZTV shows theoretical visibility dropping to low visibility (1-10 turbines) in the lower lying urban areas of the quayside and inner harbour alongside Lake Lothing and Oulton Broad, and from the southern parts of Lowestoft around Kirkley and areas between Pakefield and Carlton Colville. Views of the East Anglia TWO windfarm site are generally restricted to the immediate seafront locations of Lowestoft with clear views of the sea, extending along the coastal edge of the settlement between Gunton, Lowestoft Ness (Illustrative Viewpoint B), Lowestoft harbour, South Beach/Kirkley area (Viewpoint 1) and Pakefield/Pakefield Cliffs. The Lowestoft Ness and Lowestoft Harbour areas are not residential areas, generally consisting industrial/commercial/harbour land uses, leaving the main residential areas that may experience change as the Gunton area to the north of Lowestoft (Area A); the South Beach/Kirkley area (Area B) and the Pakefield/Pakefield Cliffs area (Area C). The magnitude of change arising as a result of the construction and operation of the offshore infrastructure Easton these areas of Lowestoft is assessed as follows.</p>	
Geographic area of Lowestoft:	Magnitude of change (construction, operation and decommissioning):
Area A: Gunton area to the north of Lowestoft	Generally low. Views of the East Anglia TWO windfarm site are restricted to Gunton Cliff, in oblique views to the south-east across Lowestoft Harbour/Ness Point. Views from residential areas of Gunton to the west/inland of Gunton Cliff (e.g. areas between Corton Road and Yarmouth Road) are screened by intervening buildings.
Area B: South Beach/Kirkley area	Generally medium-low. Views of the East Anglia TWO windfarm site are limited to residences along Marine Parade and Kirkley

Viewpoint 1: Lowestoft – Visual Assessment

	Cliff Road that are aligned along the seafront in linear street plan laid out parallel to the shore, facing out to sea. Wide open, undeveloped sea remains prominent characteristic of views.	
Area C: Pakefield/Pakefield Cliffs area (e.g. Pakefield Road, Pakefield Street)	Generally medium-low. Views of the East Anglia TWO windfarm site are limited to residences at the seaward end of the residential street which are perpendicular to the coast (such as Pakefield Road, Pakefield Street, All Saints Road).	
Area D: Quayside/inner harbour along Lake Lothing and Oulton Broad	Generally negligible. Low-lying areas with low theoretical visibility (1-10 turbines) and views screened by intervening buildings and vegetation within the built-up urban areas of Lowestoft.	
Area E: Urban areas of Lowestoft set-back from coast, including Kirkley, Pakefield and Carlton Colville	Generally negligible. Views of the East Anglia TWO windfarm site are generally screened from these areas of Lowestoft that are set back from the coast, by intervening buildings and vegetation within the built-up urban areas of Lowestoft.	
Significance of effect		
Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Residents of Lowestoft:	Not significant, short-term, temporary	Not significant, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible to residents of Lowestoft at 37.02km. Visibility at or beyond this distance occurs approximately 26% of the time, over 10-year period 2007-2017 from Weybourne and 15% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.		

Viewpoint 2: Kessingland Beach – Visual Assessment

Designations:	None	Grid reference:	E: 653618	N: 285844
		Elevation:	6.3m	
LCT/SCT:	Edge of LCT 25 Urban and LCT5 Coastal Dunes and Shingle Ridges. Overlooks SCT03 Nearshore Waters	View direction:	128°	
		Distance to East Anglia TWO windfarm site:	34.1km	
		Horizontal angle of turbine layout:	23.6°	
Receptors:	Viewpoint is representative of views experienced by beach users; walkers using the Suffolk Coastal Path/promenade; and residents of Kessingland seafront.			
Baseline description (existing view is shown in Figure 28.26b – 28.26c)				

Viewpoint 2: Kessingland Beach – Visual Assessment

- Panoramic view extending north to Ness Point and east/south-east across open expanse of the North Sea.
- Simply composed view of shingle, sea and sky layers.
- The foreground is occupied by the shingle and marram grass of Kessingland Beach SSSI, which forms a distinctive landcover with a 'natural' appearance that contributes to a sense of remoteness and contrast from the immediate urban context of Kessingland.
- Railings, colourful signage and engineered features in the foreground, together with busy restaurants/cafes and modern housing, form somewhat discordant features in the setting of the SSSI.
- Large vessels form focal features on the sea skyline and the presence of recreational sailing and fishing boats in the nearshore waters are integral to the view. Buoys are scattered features in the water.
- The wider view to the north extends to take in the developed coastline of Lowestoft, with urban areas, tall buildings, commercial development and cranes at Lowestoft Harbour characterising this part of the view.
- The Lowestoft Ness Point wind turbine is visible and forms a vertical focal feature in the view north.
- Although there is theoretical visibility of the blade tips of Galloper and Greater Gabbard Windfarms, they are scarcely visible and have a negligible influence on the view due to their long distance offshore and limited amount of the blade tips visible.

Value

Medium

- The viewpoint is not located within a scenic landscape designation, but it does overlook Kessingland Beach SSSI and is on the Suffolk Coastal Path, which have recognised conservation and recreational value.
- Although it is not a specific viewpoint, as such, there are many facilities provided to aid enjoyment of the sea view, including benches, viewing shelters and telescope oriented to the sea.
- The view displays a perception of natural qualities associated with the shingle and marram grass habitat of the SSSI, with the interest in the view arising from the juxtaposition of this habitat within an urban setting and the open, expansive seascape of the North Sea beyond.

Sensitivity to change: Combination of the value of the view and the susceptibility of each visual receptor

Receptor	Susceptibility to change	Sensitivity to change
Beach users (Kessingland Beach):	Medium-high	Medium-high
Walkers (Suffolk Coastal Path/promenade):	Medium-high	Medium-high
Residents of Kessingland seafront:	High	Medium-high
Magnitude of change (predicted view is shown in Figure 28.26e):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 34.1km and is located to the south-east of the viewpoint. The view is representative of views of the		

Viewpoint 2: Kessingland Beach – Visual Assessment

East Anglia TWO windfarm site from Kessingland Beach, the Suffolk Coastal Path passing Kessingland and the seafront areas of Kessingland.

Size/scale of change (construction, operation and decommissioning):	Medium-low
---	------------

- Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.
- The turbines within the East Anglia TWO windfarm site will add a new large-scale offshore windfarm element to the composition of the view, which is currently a relatively simply composed view of shingle, sea and sky layers.
- Lateral spread of the East Anglia TWO windfarm site will occupy approximately 24° of the field of view, which is a limited portion of the wider 180° sea view available to the observer, but is indicative of an increasing horizontal spread moving south along the coast from Lowestoft down to Orfordness. The open sea skyline would remain unaffected across the majority of the field of view out to sea.
- Towers and rotors of the closest turbines particularly those at northern end of the East Anglia TWO windfarm site) will be visible above the skyline, while more distant turbines appear more recessive, with lower towers and rotor blades behind the horizon.
- Vertical height of the turbines will be relatively small / moderate in scale, due to their long distance offshore and the large scale of the seascape in the view. The height of the turbines appears similar to the height of the large vessel to the right of the view and of smaller height than the Lowestoft Ness Point turbine.
- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- The technological appearance of the turbines is likely to contrast with the perceived naturalness of the SSSI in the foreground, however their appearance will relate rationally to the visual exposure and large scale.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be located slightly oblique to the main focus of the view from the easterly aligned beach and seafront.

Significance of effect

Receptor	Significance of effect (construction and decommissioning):	Significance of effect (operation):
Beach users (Kessingland Beach):	Not significant, short-term, temporary	Not significant, long-term, reversible
Walkers (Suffolk Coastal Path/promenade):	Not significant, short-term, temporary	Not significant, long-term, reversible

Viewpoint 2: Kessingland Beach – Visual Assessment		
Residents of Kessingland seafront:	Not significant, short-term, temporary	Not significant, long-term, reversible
Likelihood of effect		
Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 34.1km. Visibility at or beyond this distance occurs approximately 33% of the time, over 10-year period 2007-2017 from Weybourne and 21% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.		
Assessment of night-time visual effects (Viewpoint 2 Kessingland Beach)		
Baseline description:		
<ul style="list-style-type: none">• The existing night time view from Kessingland is well lit along the seafront in Kessingland, with housing and street lighting. The glare of lights from houses, flats and the port of Lowestoft is prominent in the view north along the coast. In this direction, the red aviation light of the Ness Point wind turbine is visible on its nacelle.• The open seascape includes numerous visible night-time lighting sources, including cardinal buoys, boats in nearshore waters and a frequent scattering of distant lights of commercial vessels and rigs on the skyline, which are characteristic in night-time views.• Night-time lighting of Greater Gabbard and Galloper windfarms was not observed to be visible.		
Magnitude of change (night-time) (<i>Figure 28.26f</i>):	Low	
<ul style="list-style-type: none">• The predicted night time view from Viewpoint 2 in Kessingland is shown in the night-time photomontage representation in <i>Figure 28.26f</i>. The red, medium intensity lights on the nacelle of the perimeter wind turbines of the East Anglia TWO windfarm site will be visible above the sea skyline in very good to excellent visibility and will introduce new lighting into a section of the view that currently has some visible lighting as part of the baseline.• All aviation warning lights will flash synchronously throughout the East Anglia TWO windfarm site and will be able to be switched on and off by means of twilight switches.• Aviation warning lights will allow for reduction in lighting intensity at and below the horizontal, when visibility from every wind turbine is more than 5km. The night-time photomontage representation in <i>Figure 28.26f</i> assumes full lighting intensity of the 2000cd warning lights in very good to excellent visibility conditions, as a worst-case (and is therefore likely to over-represent the likely visibility of aviation warning lighting experienced in reality).• Marine navigational lights fitted at the platform level (approximately 10m above sea level) on significant peripheral structures will not be visible in the view, as they will be hidden behind the skyline at 34.1km from the viewpoint by the curvature of the earth.• SAR lighting (200cd) of each non-periphery turbine will only be lit when conducting SAR operations in and around the East Anglia TWO windfarm site and are not expected to be visible at 34.1km. Other low intensity lights, such as for helicopter winching (green hoist lamp) and for illumination of signage (5cd) will not be visible.• The yellow lighting of the construction operation and maintenance platform will be visible at night.		
Significance of effects (night-time):		
Construction and decommissioning:	Not significant, short-term, temporary	
Operation:	Not significant, long-term, reversible	

Viewpoint 2: Kessingland Beach – Visual Assessment		
Assessment of effects on residents of wider Kessingland settlement		
Representative viewpoints:	Viewpoint 2 Kessingland	
Sensitivity to change:		
Residents of Kessingland:	Medium-high	
Magnitude of change:		
<p>Kessingland is a large village a short distance to the south of Lowestoft which can be reached along the A12. Its High Street is set back from the coast along what would have formerly been the main connecting north-south route. Urban areas, as well as amenity buildings and facilities, are spread out from this route in an easterly direction to the coast, which is predominantly bounded by holiday accommodation and caravan parks as well as other tourist facilities, and these also spread southwards, set back from the coast slightly. The beach is a long and wide with sand, shingle and marram grasses and backed by low cliffs in places. The approach from the south along the A12 is approximately 2-3km inland and separated from the coast by agricultural land and a wildlife park with trees and woodland.</p> <p>Visibility of the East Anglia TWO windfarm will be largely constrained to the coastal edge rather than other parts of the village or its approaches.</p> <p>Theoretical visibility from Kessingland is illustrated in the detailed ZTV in <i>Figure 28.26a</i>. The ZTV shows that a widespread area of the settlement has high theoretical visibility, of 51-60 turbines, however from areas of Kessingland that are set-back from the immediate seafront, views of the East Anglia TWO windfarm site are generally screened by intervening buildings and vegetation within the built-up urban areas of Kessingland. Views of the East Anglia TWO windfarm site are generally restricted to the immediate seafront locations of Kessingland Beach with clear views of the sea, extending along the coastal edge of the settlement between Kessingland Beach (Viewpoint 2) and Sea View Holiday Park. The ZTV shows theoretical visibility dropping to no visibility in a band of lower lying urban area of behind Kessingland Beach and Sea View Holiday Estate. The magnitude of change arising as a result of the East Anglia TWO windfarm site on these areas of Kessingland is assessed as follows.</p>		
Geographic area of Kessingland:	Magnitude of change (construction, operation and decommissioning):	
Area A: Sea front extending from Kessingland Beach to Alandale Park and Coastguard Lane	Generally medium-low. See above magnitude of change assessment for Viewpoint 2.	
Area B: Kessingland	Generally negligible. Areas of Kessingland that are set-back from the immediate seafront, views of the East Anglia TWO windfarm site are screened by intervening buildings and vegetation within the built-up urban areas of Kessingland.	
Significance of effect:		
Receptor	Significance of effect (construction and decommissioning):	Significance of effect (operation):
Area A: Residents of Kessingland Beach (extending to Alandale Park and Coastguard Lane):	Not significant, short-term, temporary	Not significant, long-term, reversible

Viewpoint 2: Kessingland Beach – Visual Assessment

Area B: Residents of Kessingland:	Not significant, short-term, temporary	Not significant, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible to residents of Kessingland at 34.1km. Visibility at or beyond this distance occurs approximately 33% of the time, over 10-year period 2007-2017 from Weybourne and 21% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.		

Viewpoint 3: Covehithe – Visual Assessment

Designations:	Suffolk Coast and Heaths AONB. Heritage Coast. SSSI/SAC/SPA.	Grid reference:	E:652370	N:281104
		Elevation:	7.7m	
LCT/SCT:	Edge of LCT5 Coastal Dunes and Shingle Ridges LCT 29 Wooded Fens. Overlooks SCT03 Nearshore Waters.	View direction:	122°	
		Distance to East Anglia TWO windfarm site:	33km	
		Horizontal angle of turbine layout:	26.1°	
Receptors:	Viewpoint is representative of views experienced by beach users who have walked along the footpath from Covehithe to the beach.			
Baseline description (existing view is shown in Figure 28.27b – 28.27c)				
<ul style="list-style-type: none">• Panoramic view east/south-east across open expanse of the North Sea and south along the coastline to Southwold, where the view is curtailed by Southwold Pier. Views north along the coast restricted by headland formed at Benacre Ness.• Views offshore to the sea are simply composed and consist of layers of shingle, sea and sky which form a simple composition, with very few elements and a strong horizontal emphasis.• Vast, large-scale sea and skies, with perception of limitless expanse of sea stretching out into the distance in good weather/clear visibility.• Occasional large shipping vessels dot the horizon.• Large vessels form focal features on the sea skyline and fishing boats in the coastal waters are integral to the view. Recreational boats tend to be less frequent in this view than areas to the north at Lowestoft and south at Southwold.• Sandy beach extends south into the distance, back by low ‘crumbling’ cliffs and the wooded fen of Covehithe Broad and Eaton Wood. Relatively ‘natural’ and undeveloped setting contributes to a sense of remoteness and contrasts with beach resorts at Lowestoft and Southwold along the coast.• Southwold Pier, lighthouse and St Edmunds Church form focal points to the south.• Although there is theoretical visibility of the blade tips of Galloper and Greater Gabbard Windfarms, they are scarcely visible and have a negligible influence on the view due to their long distance offshore and limited amount of the blade tips visible.				

Viewpoint 3: Covehithe – Visual Assessment

Value	High	
<ul style="list-style-type: none">• The viewpoint is located within and overlooks the coastal edge of the Suffolk Coast and Heaths AONB and the narrow band of sea that is part of the Heritage Coast. It also overlooks SSSI/SAC/SPA designated landscapes which has recognised natural heritage value.• Although it is not a specific viewpoint, as such, and there are no facilities provided to aid enjoyment of the sea view, the view will only be experienced by people who have walked along the footpath from Covehithe to the beach, specifically to experience the view and landscape setting of Covehithe beach.• The view displays a perception of natural qualities associated with the habitats and visible geology of vegetated shingle features, saline lagoons, flood-plain fens and woodland of the Pakefield to Easton Bavents SSSI/Benacre NNR.• The scenic interest in the view arises from the juxtaposition and contrast of this 'natural' backdrop with the extensive sandy beach and expansive seascape of the North Sea beyond.		
Sensitivity to change: <i>Combination of the value of the view and the susceptibility of each visual receptor</i>		
Receptor	Susceptibility to change	Sensitivity to change
Beach users (who have walked along the footpath from Covehithe to the beach):	High	High
Magnitude of change (predicted view is shown in Figure 28.27e):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 33km and is located to the east/south-east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from the Covehithe area and the dunes/shingle ridges extending between Easton Broad and Benacre Broad.		
Size/scale of change (construction, operation and decommissioning):	Medium-low	
<ul style="list-style-type: none">• Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.• The turbines within the East Anglia TWO windfarm site will add a new large scale offshore wind farm element to the composition of the view, which is currently a relatively simply composed view of sandy beach, sea and sky layers with very limited influence from development.• Lateral spread of the East Anglia TWO windfarm site will occupy approximately 26° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer. Open sea skyline would remain unaffected across the majority of the field of view out to sea.owers and rotors of all of the turbines will be visible above the skyline, with those to the north and west of the East Anglia TWO windfarm site appearing more prominent than those which recede with distance to the east.• Vertical height of the turbines will be relatively small / moderate in scale, due to their long distance offshore and the large scale of the seascape in the view. The height of the turbines will be difficult to judge due to the general absence of scale indicators from which to compare the scale of the turbines.		

Viewpoint 3: Covehithe – Visual Assessment

- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- The technological appearance of the turbines is likely to contrast with the perceived natural qualities associated with the habitats and visible geology of the coastline, however their appearance will relate rationally to the visual exposure and large scale.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be located fairly central to the main focus of the view from the easterly aligned beach.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Beach users (who have walked along the footpath from Covehithe to the beach):	Significant, short-term, temporary	Significant, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 32.95km. Visibility at or beyond this distance occurs approximately 33% of the time, over 10-year period 2007-2017 from Weybourne and 21% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.

Viewpoint 4: Southwold – Visual Assessment

Designations:	Suffolk Coast and Heaths AONB. Heritage Coast.	Grid reference:	E: 651072	N: 276454
		Elevation:	11.1m	
LCT/SCT:	LCT25 Urban and overlooks SCT03 Nearshore Waters.	View direction:	115°	
		Distance to East Anglia TWO windfarm site:	32.6km	
		Horizontal angle of turbine layout:	28.1°	
Receptors:	Viewpoint is representative of views experienced by beach users; walkers and cyclists using the Suffolk Coastal Path/esplanade; residents of Southwold seafront; tourist visitors to the seafront; people engaged in 'formal' recreational amusements at Southwold Pier and people sitting/viewing from seafront benches.			

Baseline description (existing view is shown in **Figure 28.28b – 28.28d**):

Viewpoint 4: Southwold – Visual Assessment

- Panoramic view extending north along Southwold seafront and promenade, to take in Southwold Pier, Southwold beach and open expanses of the North Sea to the east.
- Long distance views north along the low wooded cliffs and sandy beaches are curtailed by the headland formed at Benacre Ness. Short distance view to the south enclosed by urban development on North Parade.
- The view takes in the traditional beach resort of Southwold seafront, with sandy beach busy with beach users/bathers in sunny weather, pier and promenade with lighting, viewing shelters and seafront benches.
- Victorian 3 storey townhouses are aligned along the seafront on North Parade, laid out parallel to the shore, facing out to sea, many of which are in use as guest houses.
- Car parking and benches sit adjacent to seafront gardens along the promenade.
- Sandy beach backed by beach huts, affording active leisure use of the beach for bathing and beach play.
- Busy seascape, with yachts and recreational sailing boats in nearshore waters, and fishing boats in offshore waters, being integral to the view. Large commercial vessels form point features on the distant skyline.
- Views east composed by the simplicity of the sandy beach and open sea. Inherent simplicity of sea views have been changed to some degree by the development at seafront and the busy beach/nearshore waters.
- Lowestoft Ness Point wind turbine is visible in the distance to the north.
- Although there is theoretical visibility of Galloper and Greater Gabbard Windfarms, they are just visible in very good/excellent visibility and have a limited influence on the view due to their long distance offshore.

Value

High

- The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB and narrow band of sea that is part of the Heritage Coast.
- Although it is not a specific viewpoint, as such, there are many facilities provided to aid enjoyment of the sea view from this location, including benches and viewing shelters oriented to the sea.
- The view displays traditional 'beach resort' qualities and interest, while also having more 'natural' coastline extending north in the view. Visual interest is provided by the juxtaposition of the open, expansive seascape, the natural backdrop to the north, with seaside development and varied activities of people at the seafront and in nearshore waters.
- The scenic quality of views from Southwold seafront are well known at a local level and are an important factor in attracting tourist visitors to this seaside town.
- Value of the views is also conveyed by planning and development of seaside development, with the pier, buildings, gardens and promenades all aligned along the seafront to respond to the sea views.

Sensitivity to change: *Combination of the value of the view and the susceptibility of each visual receptor*

Receptor	Susceptibility to change	Sensitivity to change
Beach users (Southwold Beach):	High	High
Walkers and cyclists (Suffolk Coastal Path):	High	High

Viewpoint 4: Southwold – Visual Assessment		
Residents of Southwold seafront:	High	High
People engaged in recreational amusements:	Low	Low
People sitting/viewing from seafront benches:	High	High
Recreational boaters (Southwold Harbour):	Medium-low	Medium
Magnitude of change (predicted view is shown in Figure 28.28f):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 32.56km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from the seafront of Southwold. Views from the Gun Hill area are shown in Viewpoint 5 (Figure 28.29); Southwold Common in illustrative Viewpoint A (Figure 28.47) and Southwold Pier in illustrative Viewpoint D (Figure 28.50).		
Size/scale of change (construction, operation and decommissioning):	Medium	
<ul style="list-style-type: none">Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.The turbines within the East Anglia TWO windfarm site will add a new large-scale offshore wind farm element to the composition of the view, which is currently a relatively simply composed view of sandy beach, sea and sky layers.Lateral spread of the East Anglia TWO windfarm site will occupy approximately 28° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer. The open sea skyline would remain unaffected across the majority of the skyline to the north and south of the sea view.Towers and rotors of all of the turbines will be visible above the skyline, with those to the north and west of the East Anglia TWO windfarm site appearing more prominent than those which recede with distance to the east.The vertical height of the turbines will be relatively moderate in scale, due to their long distance offshore and the large scale of the seascape in the view.There are some scale indicators from which to compare the scale of the turbines. The turbines (300 m high turbines at 32.6km) will appear marginally higher than the height of the Lowestoft Ness Point turbine (126 m high turbine visible at 17.5km to the north) and over twice as high as the vessel on the skyline in the view.Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.The appearance of the turbines may contrast with the perceived qualities of the view, however their appearance relates rationally to the visual exposure, large scale and other wind turbines present in the view.Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site.		

Viewpoint 4: Southwold – Visual Assessment

- The East Anglia TWO windfarm site will be located fairly central to the main focus of the view from the easterly aligned seafront.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Beach users (Southwold Beach):	Significant, short-term, temporary	Significant, long-term, reversible
Walkers and cyclists (Suffolk Coastal Path):	Significant, short-term, temporary	Significant, long-term, reversible
Residents of Southwold seafront:	Significant, short-term, temporary	Significant, long-term, reversible
People engaged in recreational amusements:	Not significant, short-term, temporary	Not significant, long-term, reversible
People sitting/viewing from seafront benches:	Significant, short-term, temporary	Significant, long-term, reversible
Recreational boaters (Southwold Harbour):	Not significant, short-term, temporary	Not significant, long-term, reversible

Likelihood of effect

Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 32.56km. Visibility at or beyond this distance occurs approximately 33% of the time, over 10-year period 2007-2017 from Weybourne and 21% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.

Assessment of night-time visual effects (Viewpoint 4 Southwold)

Baseline description:

- The existing night time view from Southwold is well lit along the seafront in Southwold, with housing and street lighting at the seafront. Southwold Pier is also lit at night, including buildings and navigational markers at the end of the pier.
- The open seascape includes numerous visible night-time lighting sources, including cardinal buoys, boats in nearshore waters and a frequent scattering of distant lights of commercial vessels and rigs on the skyline, which are characteristic in night-time views.
- The majority of the night-time lighting of Greater Gabbard and Galloper windfarms was not observed to be visible, although two red lights visible on the distant skyline are considered likely to be aviation lights on the nacelles of either the Greater Gabbard or Galloper windfarm.

Magnitude of change (night-time) (**Figure 28.29g**):

Low

- The predicted night time view from Viewpoint 4 in Southwold is shown in the night-time photomontage representation in *Figure 28.28g*. The red, medium intensity lights on the nacelle of the perimeter WTGs of the East Anglia TWO windfarm site will be visible above the sea skyline in very good to excellent visibility and will introduce new lighting into a section of the view that currently has some visible lighting as part of the baseline.

Viewpoint 4: Southwold – Visual Assessment

- All aviation warning lights will flash synchronously throughout the East Anglia TWO windfarm site and will be able to be switched on and off by means of twilight switches.
- Aviation warning lights will allow for reduction in lighting intensity at and below the horizontal, when visibility from every wind turbine is more than 5km. The night-time photomontage representation in *Figure 28.28g* assumes full lighting intensity of the 2000 cd warning lights in very good to excellent visibility conditions, as a worst-case (and is therefore likely to over-represent the likely visibility of aviation warning lighting experienced in reality).
- Marine navigational lights fitted at the platform level (approximately 10m above sea level) on significant peripheral structures will not be visible in the view, as they will be hidden behind the skyline at 32.6km from the viewpoint by the curvature of the earth.
- Search and rescue (SAR) lighting (200cd) of each non-periphery turbine will only be lit when conducting SAR operations in and around the East Anglia TWO windfarm site and are not expected to be visible at 32.6km. Other low intensity lights, such as for helicopter winching (green hoist lamp) and for illumination of signage (5cd) will not be visible.
- The yellow lighting of the construction operation and maintenance platform will be visible at night.

Significance of effects (night-time):

Construction and decommissioning:	Not significant, short-term, temporary
Operation:	Not significant, long-term, reversible

Assessment of effects on residents of wider Southwold settlement

Representative viewpoints:	Viewpoint 4 (Southwold) and Viewpoint 5 (Gun Hill)
Illustrative viewpoints:	Viewpoint A (Southwold Common) and Viewpoint D (Southwold Pier)

Sensitivity to change:

Residents of Southwold:	High
-------------------------	------

Magnitude of change:

Southwold is a small coastal town to the north of the River Blyth. It is approached from the west via the A1095 (Halesworth Road) or the B1126 (Wangford Road) through the settlement of Reydon. Once in Southwold this route becomes first Station Road and then the High Street and Queen Street which provides access to the coastal areas. From the north the approach is to the east of Reydon along the along the B1127, which is set back from the coast by more than 0.5km and has few opportunities for views out to sea. Southwold has a beach frontage backed by a long parade, amenity areas and visitor facilities. There is also a pier approached along Pier Avenue through a residential area and a prominent lighthouse. The town has a high percentage of second homes as well as attracting tourists and day visitors. It is an important commercial centre for the wider agricultural area and this is focussed around the High Street which extends back from near the coast in a north-westerly direction.

Visibility of the East Anglia TWO windfarm will be largely constrained to the coastal edge rather than other parts of the town or its approaches.

Theoretical visibility from Southwold is illustrated in the detailed ZTV in *Figure 28.28a*. The ZTV shows that a widespread area of the settlement has high theoretical visibility of 51-60 turbines, however from areas of Southwold that are set-back from the immediate seafront, views of the East Anglia TWO windfarm site are generally screened by intervening buildings and vegetation within the built-up urban areas of Southwold. Views of the East Anglia TWO windfarm site are generally

Viewpoint 4: Southwold – Visual Assessment

restricted to the immediate seafront locations of Southwold with clear views of the sea, extending along the coastal edge of the settlement between Pier Avenue/Southwold Pier (Viewpoint D) along North Parade (Viewpoint 4) and its adjoining streets (such as Victoria Street, Dunwich Road and Chester Street) to Gun Hill (Viewpoint 5). The ZTV shows theoretical visibility dropping to areas with no visibility in a band of lower lying land along Buss Creek, between Reydon Marshes and Sole Bay; and in the area around Havenbeach Marshes/Ferry Road, where the intervening landform of shingle/dunes screen views of the East Anglia TWO windfarm site. There is no visibility of the East Anglia TWO windfarm site from Southwold Common (Illustrative Viewpoint A), due to the intervening urban areas of Southwold with screen views in the direction. Similarly, there is no visibility of the East Anglia TWO windfarm site from Southwold town centre, including from High Street/Market Place or from the residential streets forming the northern part of Southwold between North Road and Victoria Street; or from residential areas to the south and west of High Street/Queen Street. The magnitude of change arising as a result of the East Anglia TWO windfarm site on these areas of Southwold is assessed as follows.

Geographic area of Southwold:	Magnitude of change (construction, operation and decommissioning):	
Area A: Immediate seafront along coastal edge of Southwold between Pier Avenue/Southwold Pier (Illustrative Viewpoint D) along North Parade (Viewpoint 4) to Gun Hill (Viewpoint 5).	Generally medium. See above magnitude of change assessment for Viewpoint 4 and following Viewpoint 5.	
Area B: Southwold Common (Illustrative Viewpoint A)	Generally negligible. Views of the East Anglia TWO windfarm site are screened from Southwold Common by intervening buildings within the built-up urban areas of Southwold.	
Area C: Southwold town centre, (including from High Street/Market Place)	Generally negligible. Views of the East Anglia TWO windfarm site are screened from Southwold town centre by intervening buildings within the built-up urban areas of Southwold.	
Area D: North Southwold residential areas between North Road and Victoria Street	Generally negligible. Views of the East Anglia TWO windfarm site are screened from northern parts of Southwold by intervening buildings within the built-up urban areas of Southwold.	
Area E: Residential areas to the south and west of High Street/Queen Street	Generally negligible. Views of the East Anglia TWO windfarm site are screened from residential areas to the south and west of High Street/Queen Street by intervening buildings within the built-up urban areas of Southwold.	
Areas F: Ferry Road/Havenbeach Marshes	Generally negligible. Views of the East Anglia TWO windfarm site are screened from Ferry Road by intervening landform of shingle/dunes.	
Significance of effect		
Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)

Viewpoint 4: Southwold – Visual Assessment

Residents of immediate along coastal edge of Southwold between Pier Avenue/Southwold Pier (Illustrative Viewpoint D) along North Parade (Viewpoint 4) to Gun Hill (Viewpoint 5)	Significant, short-term, temporary	Significant, long-term, reversible
Residents of majority of Southwold including areas around Southwold Common, Southwold town centre, northern Southwold (between North Road and Victoria Street), areas to south and west of High Street/Queen Street; and Ferry Road.	Not significant, short-term, temporary	Not significant, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible to residents of Southwold at 32.6km. Visibility at or beyond this distance occurs approximately 33% of the time, over 10-year period 2007-2017 from Weybourne and 21% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.		

Viewpoint 5: Gun Hill – Visual Assessment

Designations:	Suffolk Coast and Heaths AONB. Heritage Coast.	Grid reference:	E: 650828	N: 275764
		Elevation:	9.8m	
LCT/SCT:	LCT25 Urban and overlooks SCT03 Nearshore Waters.	View direction:	115°	
		Distance to East Anglia TWO windfarm site:	32.6km	
		Horizontal angle of turbine layout:	28.3°	
Receptors:	Viewpoint is representative of views experienced by beach users; walkers using the Suffolk Coastal Path through Gun Hill; residents of Southwold around Gun Hill/promenade; people engaged in informal recreation/sitting/viewing from seafront benches and greenspace at Gun Hill; and recreational boaters (Southwold Harbour).			
Baseline description (existing view is shown in Figure 28.29b – 28.29c)				
<ul style="list-style-type: none">Panoramic view extending south over Gun Hill Cliffs, the sandy beach and dunes of ‘The Denes’ and taking in open expanses of the North Sea to the east.				

Viewpoint 5: Gun Hill – Visual Assessment

- Long distance views south over Minsmere Haven to Sizewell Nuclear Power Station, backed by marshland and Dunwich Forest, curtailed by the headland formed at Thorpe Ness. Short distance view to the north enclosed by urban development within Southwold to north of Gun Hill.
- The view takes in the beach below Gun Hill Cliff, with sandy beach busy with beach users/bathers in sunny weather, backed by colourful beach huts/kiosks and promenade with railing through Gun Hill.
- Sandy beach is backed by beach huts, affording active leisure use of the beach for bathing and beach play.
- Elements in the foreground at Gun Hill include six cliff-top cannons, flagpole, viewing benches and an octagonal pavilion, locally known as the Casino.
- Views east are to the open sea and have few elements, composed by the simplicity of the sandy beach and open sea. The inherent simplicity of the sea view has been changed to some degree by the development at seafront and the busy beach/nearshore waters.
- Several large detached ‘marine villa’ properties form the inland edge to Gun Hill and overlook the sea.
- Often a busy seascape, with recreational sailing boats in nearshore waters, and fishing boats in offshore waters, being integral to the view. Large commercial vessels form point features on the distant skyline.
- Sizewell Nuclear Power Station is visible on the coast to the south, the distinctive dome of Sizewell B and block massing of Sizewell A forming a focal feature. Electrical pylons extend from it across the inland skyline.
- Galloper and Greater Gabbard Windfarms can be seen in very good/excellent visibility, but have a limited influence on the view due to their scale and long distance offshore.

Value:

High

- The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB and narrow band of sea that is part of the Heritage Coast.
- Although it is not a specific viewpoint, as such, there are many facilities provided to aid enjoyment of the sea view from this location, including benches and promenade oriented to the sea.
- Visual interest is provided by the juxtaposition of the open, expansive seascape, the ‘natural’ inland backdrop of dunes/marshland/forests to the south, with seaside development and varied activities of people at the seafront and in nearshore waters.
- The scenic quality and outlook from Gun Hill are well known at a local level and are an important factor in attracting tourist visitors to this seaside town.
- Value of the views is also conveyed by planning and orientation of buildings, public open space, promenades and beach huts, all aligned along the seafront to respond to the sea views.

Sensitivity to change: **Combination of the value of the view and the susceptibility of each visual receptor**

Receptor	Susceptibility to change	Sensitivity to change
Beach users (Gunhill Cliff/The Denes):	High	High
Walkers (Suffolk Coastal Path):	High	High
Residents around Gun Hill/promenade:	High	High

Viewpoint 5: Gun Hill – Visual Assessment		
People sitting/viewing from seafront benches:	High	High
Recreational boaters (Southwold Harbour):	Medium-low	Medium
Magnitude of change (predicted view is shown in Figure 28.29e):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 32.6km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from the Gun Hill area of Southwold. Views from Southwold seafront (North Parade) are shown in Viewpoint 4 (Figure 28.28); Southwold Common in illustrative Viewpoint A (Figure 28.47) and Southwold Pier in illustrative Viewpoint D (Figure 28.50).		
Size/scale of change (construction, operation and decommissioning):	Medium	
<ul style="list-style-type: none">• Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.• The turbines within the East Anglia TWO windfarm site will add a new large-scale offshore wind farm element to the composition of the view, which is currently a relatively simply composed view of sandy beach, sea and sky layers.• Lateral spread of the East Anglia TWO windfarm site will occupy approximately 28° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer. Open sea skyline would remain unaffected across the majority of the skyline to the north and south of the sea view. Towers and rotors of all of the turbines will be visible above the skyline, with those to the north and west of the East Anglia TWO windfarm site appearing more prominent than those which recede with distance to the east.• The vertical height of the turbines will be relatively moderate in scale, due to their long distance offshore and the large scale of the seascape in the view.• There are some scale indicators from which to compare the scale of the turbines. The turbines (300 m high turbines at 32.61km) will appear approximately twice the height of the Galloper turbines (180.5 m high Galloper turbines visible at 42.1km) and approximately twice the height of the vessel on the skyline.• Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.• The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.• The appearance of the turbines may contrast with the perceived qualities of the view, however their appearance relates rationally to the visual exposure, large scale and other wind turbines present in the view.• Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site.• The East Anglia TWO windfarm site will be located fairly central to the main focus of the view from the easterly aligned seafront.		
Significance of effect		

Viewpoint 5: Gun Hill – Visual Assessment		
Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Beach users (Gunhill Cliff/The Denes):	Significant, short-term, temporary	Significant, long-term, reversible
Walkers (Suffolk Coastal Path):	Significant, short-term, temporary	Significant, long-term, reversible
Residents around Gun Hill/promenade:	Significant, short-term, temporary	Significant, long-term, reversible
People sitting/viewing from seafront benches:	Significant, short-term, temporary	Significant, long-term, reversible
Recreational boaters (Southwold Harbour):	Not significant, short-term, temporary	Not significant, long-term, reversible
Likelihood of effect		
Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 32.6km. Visibility at or beyond this distance occurs approximately 33% of the time, over 10-year period 2007-2017 from Weybourne and 21% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.		

Viewpoint 6: Walberswick – Visual Assessment				
Designations:	Suffolk Coast and Heaths AONB. Heritage Coast. Conservation Area.	Grid reference:	E: 649936	N: 274658
		Elevation:	3.9m	
LCT/SCT:	LCT08 Open Coastal Fens. Overlooks SCT03 Nearshore Waters.	View direction:	113°	
		Distance to East Anglia TWO windfarm site:	33.2km	
		Horizontal angle of turbine layout:	28.4°	
Receptors:	Viewpoint is representative of views experienced by beach users; walkers using the Suffolk Coastal Path; residents of the coastal edges of Walbersick; and recreational boaters (Southwold Harbour).			
Baseline description (existing view is shown in Figure 28.30b – 28.30c)				
<ul style="list-style-type: none">• Estuary saltmarshes and mudflats along the Dunwich River and sand dunes of the flats define in the foreground landscape and provide a predominantly ‘natural’ setting.• Perception of a natural, still, calm landscape, dotted with human influences such as sea defences, car parking and line of dark beach huts in the foreground and forming horizon line.				

Viewpoint 6: Walberswick – Visual Assessment

- Dune system is the prevailing influence in the view and prevents full views of the sea, which can be seen beyond the dunes as a thick strip of sea skyline forming the horizon line in places.
- Long distance views south over Minsmere Haven to Sizewell Nuclear Power Station, backed by the marshland of Walberswick NNR and Dunwich Forest, curtailed by the headland formed at Thorpe Ness. Short distance view to the north enclosed by Southwold Harbour.
- Buildings, caravans and boats around Southwold harbour form a focal point in view north beyond the dunes.
- Flat horizontal emphasis of the landscape, with relatively few vertical elements, generally just consisting of masts of recreating sailing boats in the sea over the dunes, coming in and out of Southwold Harbour.
- Sizewell Nuclear Power Station is visible on the coast to the south, the distinctive dome of Sizewell B and block massing of Sizewell A forming a focal feature. Electrical pylons extend from it across the inland skyline.
- Theoretical visibility of Galloper and Greater Gabbard Windfarms, however in reality, they are screened from this viewpoint by intervening beach huts.

Value: High

- The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB and narrow band of sea that is part of the Heritage Coast. Overlooks SSSI/SAC/SPA designations to the south, which have recognised natural heritage value.
- It is not a specific viewpoint and there are no facilities provided to aid 'formal' enjoyment of the sea view (other than car parking areas which allow looking out) with the views to the sea being informal/incidental to the recreational use of the river, dunes and beach.
- The view displays a perception of natural qualities associated with the saltmarsh and dune habitats along the Dunwich River; and the SSSI/SAC/SPA marshland habitats to the south.
- The scenic interest in the view primarily arises from these perceived 'natural' qualities, in the setting of the expansive seascape of the North Sea beyond.

Sensitivity to change: *Combination of the value of the view and the susceptibility of each visual receptor*

Receptor	Susceptibility to change	Sensitivity to change
Beach users (Walberswick Beach)	High	High
Walkers using the Suffolk Coastal Path	High	High
Residents of the coastal edges of Walbersick	High	High
Recreational boaters (Southwold Harbour)	Medium-low	Medium

Magnitude of change (predicted view is shown in **Figure 28.30e**):

Geographic extent:	Long distance
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 33.2km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from the dunes and shingle beaches on the coastal side of Walberswick, around the mouth of the River Blyth, and areas of dunes and shingle beaches extending south to Corporation Marshes.	
Size/scale of change (construction, operation and decommissioning):	Medium

Viewpoint 6: Walberswick – Visual Assessment

- Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.
- The turbines within the East Anglia TWO windfarm site will add a new large-scale offshore wind farm element to the composition of the view, which is currently a relatively simply composed view of sand dunes and large skies.
- Lateral spread of the East Anglia TWO windfarm site will occupy approximately 28° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer, but forms a wind turbine developed skyline behind the dunes. The open sea skyline extending south beyond Minsmere Haven would remain unaffected. Towers and rotors of the majority of turbines will be visible above the skyline, with those to the north and west of the East Anglia TWO windfarm site appearing more prominent than those which recede with distance to the east and become partially hidden behind the skyline.
- Vertical height of the turbines will be relatively moderate in scale, due to their long distance offshore and the large scale of the seascape in the view. The height of the turbines will be difficult to judge due to the general absence of scale indicators from which to compare the scale of the turbines.
- The foreground landscape provides a greater impression of depth and distance in the view, with the thin horizontal strip of sea having a more limited role as an element in the view (than if viewed from the beach).
- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- The technological appearance of the turbines is likely to contrast with the perceived natural qualities associated with the habitats in the foreground, however their appearance will relate rationally to the visual exposure and large scale.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be located fairly central to the main focus of the view east across the Dunwich River.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Beach users (Walberswick Beach)	Significant, short-term, temporary	Significant, long-term, reversible
Walkers using the Suffolk Coastal Path	Significant, short-term, temporary	Significant, long-term, reversible
Residents of the coastal edges of Walbersick	Significant, short-term, temporary	Significant, long-term, reversible
Recreational boaters (Southwold Harbour)	Not significant, short-term, temporary	Not significant, long-term, reversible

Viewpoint 6: Walberswick – Visual Assessment		
Likelihood of effect		
Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 33.2km. Visibility at or beyond this distance occurs approximately 33% of the time, over 10-year period 2007-2017 from Weybourne and 21% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.		
Assessment of effects on residents of wider Walberswick settlement		
Representative viewpoints:	Viewpoint 6	
Sensitivity to change:		
Residents of Walberswick:	High	
Magnitude of change:		
Theoretical visibility from Walberswick is illustrated in the detailed ZTV in Figure 28.30a . The ZTV shows that a widespread area of the settlement has high theoretical visibility of 51-60 turbines, however from areas of Walberswick that are set-back from the immediate seafront, views of the East Anglia TWO windfarm site are generally screened by intervening buildings and vegetation within the built-up areas of the village. Views of the East Anglia TWO windfarm site are restricted to limited areas of Walberswick on the eastern side of the village which are closest to the sea, such as from residential areas around Ferry Road. In general, views are substantially restricted from these areas due to the leafy wooded/vegetated grounds within the setting of these dwellings, but Viewpoint 6 provides a representative worst-case view. There will be no visibility of the East Anglia TWO windfarm site from Walberswick Village Green and its adjacent streets; or from The Street (B1387) which is the main road extending from the village centre westwards out of the village; or from the residential streets which extend off this main road and form the main residential areas of Walberswick. The magnitude of change arising as a result of the East Anglia TWO windfarm site on these areas of Walberswick is assessed as follows.		
Geographic area of Walberswick:	Size/scale of change (construction, operation and decommissioning):	
Area A: Ferry Road area on eastern edge of village	Medium. See above magnitude of change assessment for Viewpoint 4 and following Viewpoint 6.	
Area B: All other areas of Walberswick, including village green, The Street and adjoining residential areas	Negligible. Views of the East Anglia TWO windfarm site are screened by intervening buildings and vegetation within the built-up areas of the Walberswick which extend westwards away from the coast along The Street and have limited/no visual relationship with the coast.	
Significance of effect		
Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Residents of Ferry Road area on eastern edge of village:	Significant, short-term, temporary	Significant, long-term, reversible
Residents of all other areas of Walberswick	Not significant, short-term, temporary	Not significant, long-term, reversible

Viewpoint 7: Dunwich – Visual Assessment				
Designations:	Suffolk Coast and Heaths AONB. Heritage Coast. Conservation Area.	Grid reference:	E: 647961	N: 270777
		Elevation:	6.3m	
LCT/SCT:	Edge of LCT08 Open Coastal Fens and LCT05 Coastal Dunes and Shingle Ridges. Overlooks SCT03 Nearshore Waters.	View direction:	107°	
		Distance to East Anglia TWO windfarm site:	34.6km	
		Horizontal angle of turbine layout:	28.8°	
Receptors:	Viewpoint is representative of views experienced by beach users at Dunwich Beach; visitors to the nearby café and Dingle Marshes RSPB reserve (NNR) and residents of the edges of Dunwich village.			
Baseline description (existing view is shown in Figure 28.31b – 28.31c)				
<ul style="list-style-type: none">• Panoramic view east/south-east across open expanse of the North Sea and south along the coastline to Sizewell Nuclear Power Station, where the view is curtailed by Thorpe Ness. Views north extend along the coast to Southwold/Southwold Harbour.• Views offshore to the sea are simply composed and consist of layers of shingle, sea and sky which form a simple composition, with very few elements and a strong horizontal emphasis.• Vast, large-scale sea and skies, with perception of limitless expanse of sea stretching out into the distance in good weather/clear visibility.• Large vessels form focal features on the sea skyline and fishing boats in the coastal waters are integral to the view. Recreational boats tend to be less frequent in this view than areas to the north at Southwold.• Shingle beach extends south into the distance, back by low ‘crumbling’ cliffs and Dunwich Heath. Relatively ‘natural’ and undeveloped setting contributes to a sense of remoteness and contrasts with beach resorts at Lowestoft and Southwold along the coast.• In the view north, Southwold lighthouse and St Edmunds Church form focal points on the headland. Sizewell Nuclear Power Station is visible on the coast to the south, the distinctive dome of Sizewell B and block massing of Sizewell A forming a focal feature, as do its intake and outfall structures in the nearshore waters.• Galloper and Greater Gabbard Windfarms can be seen in very good/excellent visibility, but have a limited influence on the view due to their scale and long distance offshore.				
Value		High		
<ul style="list-style-type: none">• The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB and narrow band of sea that is part of the Heritage Coast. Overlooks SSSI/SAC/SPA designations to the north, which have recognised natural heritage value.• It is not a specific viewpoint and there are no facilities provided to aid ‘formal’ enjoyment of the sea view, with the views to the sea being informal/incidental to the recreational use of the beach.• The view displays a perception of natural qualities associated with the visible geology and habitats of Dunwich Cliffs extending south; and the SSSI/SAC/SPA marshland habitats to the north.• The scenic interest in the view primarily arises from these perceived ‘natural’ qualities, in the setting of the expansive seascape of the North Sea beyond.				

Viewpoint 7: Dunwich – Visual Assessment

Sensitivity to change: *Combination of the value of the view and the susceptibility of each visual receptor*

Receptor	Susceptibility to change	Sensitivity to change
Beach users at Dunwich Beach:	High	High
Visitors to the nearby café:	Low	Medium-low
Dingle Marshes RSPB reserve (NNR):	Medium	Medium
Residents of the edges of Dunwich village:	High	High
Magnitude of change (predicted view is shown in Figure 28.31e):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 34.6km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from the dunes and shingle beaches on the coastal side of Dunwich, around the mouth of the River Blyth, and areas of dunes and shingle beaches extending south along Dunwich Cliffs.		
Size/scale of change (construction, operation and decommissioning):	Medium	
<ul style="list-style-type: none">• Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a ‘horizon development’ to a large open seascape, rather than being viewed ‘within’ its seascape/landscape.• The turbines within the East Anglia TWO windfarm site will add a new large-scale offshore wind farm element to the composition of the view, which is currently a relatively simply composed view of shingle beach, sea and sky layers with very limited influence from development.• Lateral spread of the East Anglia TWO windfarm site will occupy approximately 29° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer. Open sea skyline would remain unaffected across the majority of the skyline to the north and south of the sea view. Towers and rotors of the majority of turbines will be visible above the skyline, with those to the north and west of the East Anglia TWO windfarm site appearing more prominent than those which recede with distance to the east and become partially hidden behind the skyline.• Vertical height of the turbines will be relatively moderate in scale, due to their long distance offshore and the large scale of the seascape in the view. The height of the turbines will be difficult to judge due to the general absence of scale indicators with which to compare the scale of the turbines.• Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.• The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.• The technological appearance of the turbines is likely to contrast with the perceived natural qualities associated with the habitats and visible geology of the coastline, however their appearance will relate rationally to the visual exposure and large scale.		

Viewpoint 7: Dunwich – Visual Assessment

- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be located fairly central to the main focus of the view from the easterly aligned beach.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Beach users at Dunwich Beach:	Significant, short-term, temporary	Significant, long-term, reversible
Visitors to the nearby café:	Not significant, short-term, temporary	Not significant, long-term, reversible
Dingle Marshes RSPB reserve (NNR):	Not significant, short-term, temporary	Not significant, long-term, reversible
Residents of the edges of Dunwich village:	Significant, short-term, temporary	Significant, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 34.6km. Visibility at or beyond this distance occurs approximately 26% of the time, over 10-year period 2007-2017 from Weybourne and 15% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.

Viewpoint 8: Dunwich Heath and Beach – Visual Assessment

Designations:	Suffolk Coast and Heaths AONB. Heritage Coast. SSSI/SPA/SAC/Ramsar.	Grid reference:	E: 647700	N: 267801
		Elevation:	18.3m	
LCT/SCT:	LCT07 Estate Sandlands and overlooks SCT03 Nearshore Waters.	View direction:	103°	
		Distance to East Anglia TWO windfarm site:	34.68km	
		Horizontal angle of turbine layout:	29.4°	
Receptors:	Viewpoint is representative of views experienced by visitors to Dunwich Heath and Beach; the nearby National Trust Coastguard Cottages and walkers using the Suffolk Coastal Path.			
Baseline description (existing view is shown in Figure 28.32b – 28.32c)				
<ul style="list-style-type: none">Panoramic view, from elevated/exposed cliff top location, east across open expanse of the North Sea, south over picnic benches/parking at the coastguard cottages to Minsmere and Sizewell				

Viewpoint 8: Dunwich Heath and Beach – Visual Assessment

Nuclear Power Station (where the view is curtailed by Thorpe Ness) and along the coast to Southwold/Southwold Harbour.

- Views offshore to the sea are simply composed and consist of layers of gorse vegetation, sea and sky which form a simple composition, with very few elements and a strong horizontal emphasis. Vast, large-scale sea and skies, with perception of limitless expanse of sea stretching out in good weather/clear visibility.
- Views north over Dunwich Heath, beyond which the view extends across marshlands to Southwold, where Southwold lighthouse and St Edmunds Church form focal points on the headland.
- Large vessels form focal features on the sea skyline and fishing boats in the coastal waters are integral to the view. Recreational boats tend to be less frequent in this view than areas to the north at Southwold.
- Sizewell Nuclear Power Station is visible to the south, the distinctive dome of Sizewell B and block massing of Sizewell A forming a focal feature, as do its intake and outfall structures in the nearshore waters.
- Shingle beach and dunes extends south into the distance, backed by the wetland, heath and grassland habitats of Minster NNR and woodland at Dunwich Forest.
- Galloper and Greater Gabbard Windfarms can be seen in very good/excellent visibility, and begin to have more influence on the view than locations further north in the AONB, albeit at long distances offshore (36.9 km to Greater Gabbard and 37.8 km to Galloper).

Value

High

- The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB and narrow band of sea that is part of the Heritage Coast. Overlooks SSSI/SAC/SPA designations to the south, which have recognised natural heritage value.
- Although it is not a specific viewpoint, as such, there are facilities such as picnic tables provided to aid enjoyment of the outlook from this location.
- The view displays a perception of natural qualities associated with the visible geology and habitats of Minster levels and the dune/shingle coast extending south; and Dunwich Heath to the north.
- The scenic interest in the view primarily arises from these perceived 'natural' qualities of Dunwich Heath and Minster levels, and the open sea, juxtaposed with Sizewell Nuclear Power Station, electrical pylons and offshore wind turbines, which form visible contrasts in natural and technological elements in the view.

Sensitivity to change: Combination of the value of the view and the susceptibility of each visual receptor

Receptor

Susceptibility to change

Sensitivity to change

Visitors to Dunwich Heath and Beach (including Coastguard Cottages)

High

High

Walkers using the Suffolk Coastal Path

High

High

Magnitude of change (predicted view is shown in **Figure 28.32f**):

Geographic extent:

Long distance

Viewpoint 8: Dunwich Heath and Beach – Visual Assessment

The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 34.7km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from a fairly contained elevated area around the National Trust coastguard Cottages and the southern end of Dunwich Heath/Minsmere Cliffs.

Size/scale of change (construction, operation and decommissioning):	Medium
---	--------

- Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.
- The turbines within the East Anglia TWO windfarm site will add further large-scale offshore wind farm element to the composition of the view, which is currently a relatively simply composed view of gorse vegetation, sea and sky layers.
- Lateral spread of the East Anglia TWO windfarm site will occupy approximately 29° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer. Open sea skyline would remain unaffected across the majority of the skyline to the north and south of the sea view. Towers and rotors of the majority of turbines will be visible above the skyline, with those to the west of the East Anglia TWO windfarm site appearing more prominent than those which recede with distance to the east and become partially hidden behind the skyline.
- Vertical height of the turbines will be relatively moderate in scale, due to their long distance offshore and the large scale of the seascape in the view. There are some scale indicators from which to compare the scale of the turbines. The turbines (300 m high turbines at 34.7km) will appear approximately twice the height of the Galloper turbines (180.5 m high Galloper turbines visible at 37.8km).
- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- The technological appearance of the turbines is likely to contrast with the perceived natural qualities associated with the habitats and visible geology of the coastline, however their appearance will relate rationally to the visual exposure and existing energy generation influences in the view.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be located fairly central to the main focus of the view from the easterly aligned cliff-top.
- The East Anglia TWO windfarm site will be viewed in the context of the existing Galloper and Greater Gabbard wind farms, representing a northerly extension and increase in visual prominence of the existing offshore windfarm element in the view, rather than an entirely new form of development.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)

Viewpoint 8: Dunwich Heath and Beach – Visual Assessment

Visitors to Dunwich Heath and Beach (Coastguard Cottages)	Significant, short-term, temporary	Significant, long-term, reversible
Walkers using the Suffolk Coastal Path	Significant, short-term, temporary	Significant, long-term, reversible
Likelihood of effect		
Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 34.7km. Visibility at or beyond this distance occurs approximately 33% of the time, over 10-year period 2007-2017 from Weybourne and 21% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.		

Viewpoint 9: Minsmere Nature Reserve – Visual Assessment

Designations:	Suffolk Coast and Heaths AONB. Heritage Coast. SSSI/SPA/SAC/Ramsar.	Grid reference:	E: 647171	N: 267225
		Elevation:	15.6m	
LCT/SCT:	Edge of LCT07 Estate Sandlands and LCT06 Coastal Levels. Overlooks SCT03 Nearshore Waters.	View direction:	102°	
		Distance to East Anglia TWO windfarm site:	35.20km	
		Horizontal angle of turbine layout:	29.2°	
Receptors:	Viewpoint is representative of views experienced by visitors at the visitor centre/car parking area at Minsmere Nature Reserve and birdwatchers/people walking on trails within the reserve.			
Baseline description (existing view is shown in Figure 28.33b – 28.33c)				
<ul style="list-style-type: none">• Panoramic view, from elevated location near visitor centre/car park, looking east across Minsmere to open expanse of the North Sea.• Views offshore to the sea are fairly simply composed and consist of layers of rough grassland/scrub vegetation, sea and sky which form a simple composition, with very few elements and a strong horizontal emphasis. Vast, large-scale sea and skies, with perception of limitless expanse of sea stretching out in good weather/clear visibility.• Views south are restricted by woodland around the visitor centre but do extend across the reedbeds and marshland of Minsmere levels to the shingle beach/dunes beyond at the coast. Views north are restricted by the undulating landform, channelling the view offshore.• Large vessels form focal features on the sea skyline and fishing boats in the coastal waters are integral to the view. Recreational boats tend to be less frequent in this view than areas to the north at Southwold.• Galloper and Greater Gabbard Windfarms can be seen in very good/excellent visibility but have a limited influence on the view due to their scale and long distance offshore.				
Value:		Medium		

Viewpoint 9: Minsmere Nature Reserve – Visual Assessment

- The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB and narrow band of sea that is part of the Heritage Coast. Overlooks SSSI/SAC/SPA/NNR designations at Minsmere, which have recognised natural heritage value.
- It is not a specific viewpoint and there are no facilities provided to aid 'formal' enjoyment of the view, with the views to sea being informal/incidental to the arrival at Minsmere NNR visitor centre and the recreational use of Minsmere, rather than being a recognised element in the experience of visiting the NNR.
- The view displays a perception of natural qualities associated with the habitats of Minsmere levels and the dune/shingle coast extending south. The scenic interest and value of the view primarily arises from these perceived 'natural' qualities, their interaction with the open sea and perception of remoteness.

Sensitivity to change: Combination of the value of the view and the susceptibility of each visual receptor

Receptor	Susceptibility to change	Sensitivity to change
Visitors at the visitor centre/car parking area:	Medium-high	Medium-high
Birdwatchers using hides/viewing platforms:	Low	Medium-low
Walkers using the coast trail around the Scrape:	Medium-high	Medium-high
Walkers using the Island Mere and Woodland Trail:	Low	Medium-low

Magnitude of change (predicted view is shown in **Figure 28.33e**):

Geographic extent:	Long distance
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 35.2km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from a fairly contained areas of Minsmere near the visitor centre and coastal areas of the NNR around the Scrape.	
Size/scale of change (construction, operation and decommissioning):	Medium
<ul style="list-style-type: none"> • Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape. • The turbines within the East Anglia TWO windfarm site will add further large-scale offshore wind farm element to the composition of the view, which is currently a relatively simply composed view of scrub vegetation/woodland, sea and sky layers. • Lateral spread of the East Anglia TWO windfarm site will occupy approximately 29° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer. Open sea skyline would remain unaffected across the majority of the skyline to the north and south of the sea view. Towers and rotors of the majority of turbines will be visible above the skyline, with those to the west of the East Anglia TWO windfarm site appearing more prominent than those which recede with distance to the east and become partially hidden behind the skyline. • Vertical height of the turbines will be relatively moderate in scale, due to their long distance offshore and the large scale of the seascape in the view. There are some scale indicators from 	

Viewpoint 9: Minsmere Nature Reserve – Visual Assessment

which to compare the scale of the turbines. The turbines (300 m high turbines at 35.2km) will appear approximately twice the height of the Galloper turbines (180.5 m high Galloper turbines visible at 37.7km).

- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- The technological appearance of the turbines is likely to contrast with the perceived natural qualities associated with the habitats of the coastline, however their appearance will relate rationally to the visual exposure and existing energy generation influences in the view.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be located fairly central to the main focus of the view east.
- The East Anglia TWO windfarm site will be viewed in the context of the existing Galloper and Greater Gabbard wind farms, representing a northerly extension and increase in visual prominence of the existing offshore windfarm element in the view, rather than an entirely new form of development.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Visitors at the visitor centre/car parking area:	Significant, short-term, temporary	Significant, long-term, reversible
Birdwatchers using hides/viewing platforms:	Not significant, short-term, temporary	Not significant, long-term, reversible
Walkers using the coast trail around the Scrape:	Significant, short-term, temporary	Significant, long-term, reversible
Walkers using the Island Mere and Woodland Trail:	Not significant, short-term, temporary	Not significant, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 35.2km. Visibility at or beyond this distance occurs approximately 26% of the time, over 10-year period 2007-2017 from Weybourne and 15% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.

Viewpoint 10: Sizewell Beach – Visual Assessment				
Designations:	Suffolk Coast and Heaths AONB. Heritage Coast.	Grid reference:	E: 647542	N: 262858
		Elevation:	7.2m	
LCT/SCT:	LCT05 Coastal Dunes and Shingle Ridges. Overlooks SCT03 Nearshore Waters.	View direction:	96°	
		Distance to East Anglia TWO windfarm site:	34.8km	
		Horizontal angle of turbine layout:	30.2°	
Receptors:	Viewpoint is representative of views experienced by beach users at Sizewell Beach; walkers using the Suffolk Coastal Path; residents of Sizewell and workers at Sizewell Nuclear Power Station.			
Baseline description (existing view is shown in Figure 28.34b – 28.34c)				
<ul style="list-style-type: none">• Panoramic view, across open expanse of the North Sea, with the perception of a limitless seaward extent.• Views north extend along the coast to Lowestoft but are curtailed by the block massing of Sizewell A Nuclear Power Station. Views south are obscured by the headland, housing in Sizewell and the landform beyond.• The view out to sea is simple, with few elements in the sea and a simple composition of shingle beach, sea and sky with a strong sense of horizon line.• Buoys and boats scattered the nearshore waters in the foreground and there are larger tankers on the horizon. Fishing and recreational boats are scattered along the shoreline.• Housing at Sizewell is located in the immediate backdrop to the beach and there are recreational/amenity facilities in the form of car parking, benches and Sizewell Beach Café.• Sizewell Nuclear Power Station has a large influence on the setting, despite being screened to some degree by large areas of woodland. Intake and outfall structures extend its influence into nearshore waters.• Galloper and Greater Gabbard Windfarms can be seen in very good/excellent visibility, at long distance, and although these turbines having relatively small vertical scale, they have a visual influence as a combined grouping with an apparent lateral spread, which forms a windfarm developed section of the sea skyline to the south-east of the view.				
Value:		Medium		
<ul style="list-style-type: none">• The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB and narrow band of sea that is part of the Heritage Coast.• It is not a specific viewpoint, although there are some limited facilities such as benches provided to aid enjoyment of the sea view, but the outlook being largely incidental to the recreational use of the beach.• The prominence of Sizewell Nuclear Power Station and its intake and outfall structures in the nearshore waters affects the existing scenic qualities and setting in the view from Sizewell Beach.• The view does, however, also display a perception of natural qualities associated with the habitats of the dune/shingle coast extending north.				

Viewpoint 10: Sizewell Beach – Visual Assessment

- The scenic interest in the view therefore primarily arises from these perceived 'natural' qualities and the open sea, juxtaposed with Sizewell Nuclear Power Station, electrical pylons and offshore wind turbines, which form visible contrasts in natural and technological elements in the view.
- This landscape at Sizewell Beach is perhaps less visited by tourists than some other parts of the AONB and study area coastline.

Sensitivity to change: *Combination of the value of the view and the susceptibility of each visual receptor*

Receptor	Susceptibility to change	Sensitivity to change
Beach users at Sizewell Beach	Medium	Medium
Walkers using the Suffolk Coastal Path	Medium	Medium
Residents of Sizewell	Medium	Medium
Workers at Sizewell Nuclear Power Station	Low	Low

Magnitude of change (predicted view is shown in **Figure 28.35f**):

Geographic extent:	Long distance
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 34.8km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from Sizewell Beach and visitor parking areas, the settlement of Sizewell and the wider shingle and dune coastline extending north past Sizewell Power Station and south to Sizewell Cliffs.	
Size/scale of change (construction, operation and decommissioning):	Medium-low

- Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.
- The turbines within the East Anglia TWO windfarm site will add further large-scale offshore wind farm element to the composition of the view, which is currently a relatively simply composed view of scrub vegetation/woodland, sea and sky layers.
- The East Anglia TWO windfarm site will be located fairly central to the main focus of the view east.
- Lateral spread of the East Anglia TWO windfarm site will occupy approximately 30° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer. Open sea skyline would remain unaffected across the majority of the skyline to the north and south of the sea view. Towers and rotors of the majority of turbines will be visible above the skyline, with those to the west of the East Anglia TWO windfarm site appearing more prominent than those which recede with distance to the east and become partially hidden behind the skyline.
- Vertical height of the turbines will be relatively moderate in scale, due to their long distance offshore and the large scale of the seascape in the view. There are some scale indicators from which to compare the scale of the turbines. The turbines (300 m high turbines at 34.8km) will appear approximately twice the height of the Galloper turbines (180.5 m high Galloper turbines visible at 34.3km). The turbine blade tips will also be below the height of the platform at the top of the intake structure in the view.

Viewpoint 10: Sizewell Beach – Visual Assessment

- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- The technological appearance of the turbines will relate rationally to the visual exposure and existing large scale energy generation influences which are prevalent in the existing view.
- The East Anglia TWO windfarm site will be viewed in the context of more prominent energy infrastructure influences at Sizewell Nuclear Power Station and its offshore intake and outfall structures in foreground. The concrete hulk of Sizewell A and white dome of Sizewell B are a key landmark and exert a strong influence on the view. The scale of the buildings dominates the local landscape in the view such that other landscape features feel smaller and less significant.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be viewed in the context of the existing Galloper and Greater Gabbard wind farms. While this means that it does not form an entirely new type of visible development, it does result in a northerly extension, increase in visual prominence and spread of the existing offshore windfarm element in the view.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Beach users at Sizewell Beach	Not significant, short-term, temporary	Not significant, long-term, reversible
Walkers using the Suffolk Coastal Path	Not significant, short-term, temporary	Not significant, long-term, reversible
Residents of Sizewell	Not significant, short-term, temporary	Not significant, long-term, reversible
Workers at Sizewell Nuclear Power Station	Not significant, short-term, temporary	Not significant, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 34.8km. Visibility at or beyond this distance occurs approximately 33% of the time, over 10-year period 2007-2017 from Weybourne and 21% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.

Viewpoint 11: Coastal Path between Thorpeness and Sizewell – Visual Assessment				
Designations:	Suffolk Coast and Heaths AONB. Heritage Coast. SSSI.	Grid reference:	E: 647624	N: 260987
		Elevation:	11.3m	
LCT/SCT:	Edge of LCT07 Estate Sandlands and LCT5 Coastal Dunes and Shingle Ridges. Overlooks SCT03 Nearshore Waters.	View direction:	94°	
		Distance to East Anglia TWO windfarm site:	34.8km	
		Horizontal angle of turbine layout:	30.4°	
Receptors:	Viewpoint is representative of views experienced by walkers using the Coastal Path between Thorpeness and Sizewell. Due to erosion of the cliff on the North side of Thorpeness, the Suffolk Coastal Path has now been diverted inland across Thorpeness Common.			
Baseline description (existing view is shown in Figure 28.35b – 28.35d)				
<ul style="list-style-type: none">• Panoramic view east across open expanse of the North Sea and north along the coastline to Southwold and Ness Point at Lowestoft. View south is curtailed by Thorpe Ness.• Views offshore to the sea are simply composed and consist of layers of shingle, sea and sky which form a simple composition, with very few elements and a strong horizontal emphasis.• Vast, large-scale sea and skies, with perception of limitless expanse of sea stretching out into the distance in good weather/clear visibility.• Large vessels form focal features on the sea skyline and fishing boats in the coastal waters are integral to the view. Recreational boats tend to be less frequent in this view than waters near Southwold and Aldeburgh.• Shingle beach is backed by low ‘crumbling’ wooded cliffs. Relatively ‘natural’ and undeveloped setting contributes to a sense of remoteness, however built elements to the north include Ness House, Sizewell Power Station’s offshore intake and outfall structures, as well as the seaside town of Southwold in the distance.• Buoys and boats scattered the nearshore waters in the foreground and larger tankers frequent the horizon.• In the view north, Southwold lighthouse, St Edmunds Church and the Ness Point wind turbine form focal points on the headland. Sizewell Nuclear Power Station is hidden by the cliffs.• Galloper and Greater Gabbard Windfarms can be seen in very good/excellent visibility, at long distance, and although these turbines having relatively small vertical scale, they have a visual influence as a combined grouping with an apparent lateral spread, which forms a windfarm developed section of the sea skyline to the south-east of the view.				
Value:		Medium-high		
<ul style="list-style-type: none">• The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB and narrow band of sea that is part of the Heritage Coast.• It is not a specific viewpoint, and there are no facilities provided to aid enjoyment of the sea view, with the outlook being largely incidental to the recreational use of the path.• Some development in the view, such as the intake and outfall structures of Sizewell Power Station in the nearshore waters has a minor influence on the existing scenic qualities.				

Viewpoint 11: Coastal Path between Thorpeness and Sizewell – Visual Assessment

- The view does, however, also display a perception of natural qualities associated with the habitats of the dune/shingle and cliffs coastline extending north.
- The scenic interest in the view therefore primarily arises from these perceived 'natural' qualities and the open sea, juxtaposed with intake/outfall structures, offshore wind turbines and large vessels, which form visible contrasts in natural and technological elements in the view.

Sensitivity to change: *Combination of the value of the view and the susceptibility of each visual receptor*

Receptor	Susceptibility to change	Sensitivity to change
Walkers using the Coastal Path	High	High

Magnitude of change (predicted view is shown in **Figure 28.35f**):

Geographic extent:	Long distance
--------------------	---------------

The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 34.8km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from the cliffs between Thorpe Ness and Sizewell, much of which has been subject to extensive erosion, such that the Suffolk Coastal Path has been diverted inland across Thorpeness Common.

Size/scale of change (construction, operation and decommissioning):	Medium
---	--------

- Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.
- The turbines within the East Anglia TWO windfarm site will add further large-scale offshore wind farm element to the composition of the view, which is currently a relatively simply composed view of shingle beach, sea and sky layers.
- The East Anglia TWO windfarm site will be located fairly central to the main focus of the view east.
- Lateral spread of the East Anglia TWO windfarm site will occupy approximately 30° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer. Open sea skyline would remain unaffected across the majority of the skyline to the north and south of the sea view. Towers and rotors of the majority of turbines will be visible above the skyline, with those to the west of the East Anglia TWO windfarm site appearing more prominent than those which recede with distance to the east and become partially hidden behind the skyline.
- Vertical height of the turbines will be relatively moderate in scale, due to their long distance offshore and the large scale of the seascape in the view. There are some scale indicators from which to compare the scale of the turbines. The turbines (300 m high turbines at 34.8km) will appear approximately twice the height of the Galloper turbines (180.5 m high Galloper turbines visible at 33km).
- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.

Viewpoint 11: Coastal Path between Thorpeness and Sizewell – Visual Assessment

- The technological appearance of the turbines will relate rationally to the visual exposure and existing wind energy generation influences which are present in the existing view.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be viewed in the context of the existing Galloper and Greater Gabbard wind farms. While this means that it does not form an entirely new type of visible development, it does result in a northerly extension, increase in visual prominence and spread of the existing offshore windfarm element in the view.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Walkers using the Coastal Path	Significant, short-term, temporary	Significant, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 34.8km. Visibility at or beyond this distance occurs approximately 33% of the time, over 10-year period 2007-2017 from Weybourne and 21% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.

Viewpoint 12: Thorpeness – Visual Assessment

Designations:	Suffolk Coast and Heaths AONB. Heritage Coast. Conservation Area.	Grid reference:	E: 647287	N: 259490
		Elevation:	4.7m	
LCT/SCT:	LCT05 Coastal Dunes and Shingle Ridges. Overlooks SCT03 Nearshore Waters.	View direction:	92°	
		Distance to East Anglia TWO windfarm site:	35.1km	
		Horizontal angle of turbine layout:	30.2°	
Receptors:	Viewpoint is representative of views experienced by beach users at Thorpeness beach; residents of Thorpeness; tourist visitors to Thorpeness; and walkers using the Suffolk Coastal Path.			

Baseline description (existing view is shown in **Figure 28.36b – 28.36c**)

- Panoramic view east across extensive, long stretch of shingle beach to the open expanse of the North Sea, extending into the distance along the coastline.
- Views north are restricted by development at Thorpeness, while views south extend along shingle beach across the Haven to Aldeburgh.
- Aldeburgh Church forms a focal point in the view south. Tall communications masts on Orford Ness are visible behind Aldeburgh and form tall vertical elements.

Viewpoint 12: Thorpeness – Visual Assessment

- Views offshore to the sea are simply composed and consist of layers of shingle, sea and sky which form a simple composition, with very few elements and a strong horizontal emphasis.
- Vast, large-scale sea and skies, with perception of limitless expanse of sea stretching out into the distance in good weather/clear visibility. Simple scene, with few elements of activity.
- Large vessels form focal features on the skyline and together with fishing boats are integral to the view. Recreational boats are present but tend to be less frequent than in waters near Southwold and Aldeburgh.
- Shingle beach is backed by housing and holiday accommodation in Thorpeness.
- The headland formed by Thorpeness prevents views of Sizewell Power Station to the north.
- Galloper and Greater Gabbard Windfarms can be seen in very good/excellent visibility, at long distance, and although these turbines having relatively small vertical scale, they have a visual influence as a combined grouping with an apparent lateral spread, which forms a windfarm influenced section of the sea skyline to the south-east of the view.

Value:

High

- The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB and narrow band of sea that is part of the Heritage Coast.
- Although it is not a specific viewpoint, as such, there are facilities provided to aid enjoyment of the sea view from this location, including benches oriented to the sea.
- The scenic quality and interest is particularly influenced by the simplicity of the main elements in the view (shingle/sea/sky) and the open seascape and the long shingle beach.
- The informal relationship of the holiday village of Thorpeness with the beach is also distinct from the more formal beach resorts/coastal towns nearby.
- The scenic quality of views from Thorpeness are well known at a local level and are an important factor in attracting tourist visitors to this coastal holiday village.
- Views of the sea are likely to be valued by visitors to the holiday accommodation situated next to the beach.

Sensitivity to change: **Combination of the value of the view and the susceptibility of each visual receptor**

Receptor	Susceptibility to change	Sensitivity to change
Beach users at Thorpeness beach:	High	High
Residents of Thorpeness:	High	High
Tourist visitors to Thorpeness/holiday accommodation:	High	High
Walkers using the Suffolk Coastal Path:	High	High
Magnitude of change (predicted view is shown in Figure 28.36e):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 35.1km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from Thorpeness beach and the coastal edges of the village of Thorpeness.		

Viewpoint 12: Thorpeness – Visual Assessment

Size/scale of change (construction, operation and decommissioning):	Medium
---	--------

- Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.
- The turbines within the East Anglia TWO windfarm site will add further large-scale offshore wind farm element to the composition of the view, which is currently a relatively simply composed view of shingle beach, sea and sky layers.
- The East Anglia TWO windfarm site will be located fairly central to the main focus of the view east.
- Lateral spread of the East Anglia TWO windfarm site will occupy approximately 30° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer. Open sea skyline would remain unaffected across the majority of the skyline to the north and south of the sea view. Towers and rotors of the majority of turbines will be visible above the skyline, with those to the west of the East Anglia TWO windfarm site appearing more prominent than those which recede with distance to the east and become partially hidden behind the skyline.
- Vertical height of the turbines will be relatively moderate in scale, due to their long distance offshore and the large scale of the seascape in the view. There are some scale indicators from which to compare the scale of the turbines. The turbines (300 m high turbines at 35.1km) will appear approximately twice the height of the Galloper turbines (180.5 m high Galloper turbines visible at 32.4km).
- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- The technological appearance of the turbines will relate rationally to the visual exposure and existing wind energy generation influences which are present in the existing view.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be viewed in the context of the existing Galloper and Greater Gabbard wind farms. While this means that it does not form an entirely new type of visible development, it does result in a northerly extension, increase in visual prominence and spread of the existing offshore windfarm element in the view.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Beach users at Thorpeness beach:	Significant, short-term, temporary	Significant, long-term, reversible
Residents of Thorpeness:	Significant, short-term, temporary	Significant, long-term, reversible

Viewpoint 12: Thorpeness – Visual Assessment		
Tourist visitors to Thorpeness/holiday accommodation:	Significant, short-term, temporary	Significant, long-term, reversible
Walkers using the Suffolk Coastal Path:	Significant, short-term, temporary	Significant, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 35.1km. Visibility at or beyond this distance occurs approximately 26% of the time, over 10-year period 2007-2017 from Weybourne and 15% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility at distances of greater than 32.6km would occur less than 10% of the time.		
Assessment of effects on residents of wider Thorpeness settlement		
Representative viewpoints:	Viewpoint 12	
Sensitivity to change:		
Residents of Thorpeness:	High	
Magnitude of change:		
<p>Thorpeness is an unusual, small village to the north of Aldeburgh, accessed from the larger town along the coastal, Thorpe Road, which is set slightly back from the coast by a slightly raised area of grasses, sand dunes and shingles. The other approach to the village is from the west along the B1353, which leads from Aldringham and Coldfair Green passing through extensive wooded areas associated with Aldringham Common and a golf course so that there is very limited opportunity for views out to sea until the coast is reached. The village itself was developed from a small fishing hamlet by wealthy investor as a private fantasy village where he built many properties around a large village green and alongside an artificial waterbody, The Meare, which extends inland from the core area of the village. Several prominent buildings are a focus in the village with a water tower 'disguised' as a wooden house set of a five-storey tower (and known as the House in the Clouds) and visible above the surrounding woodland from the wider landscape. Within the village itself a set of almshouses are a feature located around a central grass area where there are tennis courts, parkland and a country club and community buildings on the coastal side. The houses, community facilities and routes along the coast tend to be set back slightly from the shingle beach and separated from it by sandy grassland.</p> <p>Visibility of the East Anglia TWO windfarm will be largely constrained to the coastal edge of the village, rather than other parts of the village or its approach from the west. Views towards the village in the approach from the south along Thorpe Road tend to be focussed on the village and its unusual buildings with views out to sea less prominent from the road due to the intervening grassland.</p> <p>Theoretical visibility from Thorpeness is illustrated in the detailed ZTV in Figure 28.36a. The ZTV shows that a widespread area of the settlement has high theoretical visibility of 51-60 turbines, however from areas of Thorpeness that are set-back from the immediate seafront, views of the East Anglia TWO windfarm site are generally screened by intervening buildings and vegetation within the built-up areas of the village. Views of the East Anglia TWO windfarm site are generally restricted to limited areas of Thorpeness that look out over the seafront, such as from residential areas between North End Avenue at the northern edge of the village; Admiral's Walk/The Headlands/Benthills; to the detached dwellings along Aldeburgh Road/Thorpe Road on the southern edge of the village. There will generally be no visibility of the East Anglia TWO windfarm site from areas of Thorpeness set-back from these seafront areas, including no visibility from the Meare and its adjacent streets (The Haven/Lakeside Avenue) or from the central/western areas of Thorpeness around the village green/The Sanctuary/Westgate/The Whinlands/Pilgrim's Way. The magnitude of change arising as a result of the East Anglia TWO windfarm site on these areas of Thorpeness is assessed as follows.</p>		

Viewpoint 12: Thorpeness – Visual Assessment

Geographic area of Thorpeness:	Size/scale of change (construction, operation and decommissioning):	
Area A: Seafront residential areas between North End Avenue, Admiral's Walk/The Headlands/Benthills; to Thorpe Road.	Generally medium. See above magnitude of change assessment for Viewpoint 12.	
Area B: Areas of Thorpeness set-back from these seafront areas, including the Meare and its adjacent streets (The Haven/Lakeside Avenue); and central/western areas of Thorpeness around the village green/The Sanctuary/Westgate/The Whinlands/Pilgrim's Way.	Generally negligible. Views of the East Anglia TWO windfarm site are generally screened by intervening buildings and vegetation within the built-up areas of Thorpeness from areas set-back from the seafront, including the Meare and its adjacent streets (The Haven/Lakeside Avenue); and central/western areas of Thorpeness around the village green/The Sanctuary/Westgate/The Whinlands/Pilgrim's Way.	
Significance of effect:		
Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Residents of seafront residential areas between North End Avenue, Admiral's Walk/The Headlands/Benthills; to Thorpe Road.	Significant, short-term, temporary	Significant, long-term, reversible
Residents of areas of Thorpeness set-back from these seafront areas, including the Meare and its adjacent streets (The Haven/Lakeside Avenue); and central/western areas of Thorpeness around the village green/The Sanctuary/Westgate/The Whinlands/Pilgrim's Way.	Not significant, short-term, temporary	Not significant, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible to residents of Thorpeness at 35.1km. Visibility at or beyond this distance occurs approximately 26% of the time, over 10-year period 2007-2017 from Weybourne and 15% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.		

Viewpoint 13: Aldeburgh – Visual Assessment

Designations:	Suffolk Coast and Heaths AONB. Heritage Coast. Conservation Area.	Grid reference:	E: 646525	N: 256500
		Elevation:	6.0m	
LCT/SCT:		View direction:	88°	

Viewpoint 13: Aldeburgh – Visual Assessment			
	Edge of LCT25 Urban and LCT05 Coastal Dunes and Shingle Ridges. Overlooks SCT03 Nearshore Waters.	Distance to East Anglia TWO windfarm site:	35.9km
		Horizontal angle of turbine layout:	29.4°
Receptors:	Viewpoint is representative of views experienced by beach users; residents of Aldeburgh seafront; tourist visitors to the seafront; walkers/strollers using Crag Path alongside the beach; people sitting/viewing from seafront benches; people working along the front e.g. RNLI shop, seafood vendors; and recreational boating (e.g. from Aldeburgh Yacht Club).		
Baseline description (existing view is shown in Figure 28.37b – 28.37c)			
<ul style="list-style-type: none">• Panoramic view east across extensive, stretch of shingle beach to the open expanse of the North Sea.• Due to the orientation of the coast and position of buildings at the seafront, there are no wider views to headlands along the coast. Views are instead focused out towards the sea, increasing the influence of the sea on the view and making it difficult to perceive depth and distance in the view.• Views offshore to the sea are simply composed and consist of layers of shingle, sea and sky which form a simple composition, with very few elements and a strong horizontal emphasis.• Vast, large-scale sea and skies, with perception of limitless expanse of sea stretching out into the distance in good weather/clear visibility. Simple scene, with relatively few elements, although the varied activities of people on the beach/seafront and nearshore waters provides visual interest and movement.• Shingle beach is backed by housing in Aldeburgh along Crag Path, oriented to the sea, and the foreshore includes other elements such as the RNLI shop, seafood vendor and boats scattered along the beach.• Busy seascape, with yachts and recreational sailing boats in nearshore waters, and fishing boats in offshore waters, being integral to the view. Large commercial vessels form point features on the distant skyline.• Inherent simplicity of sea views have been changed to some degree by development at seafront and the busy beach/nearshore waters.• Galloper and Greater Gabbard Windfarms can be seen in very good/excellent visibility, at long distance, and although these turbines having relatively small vertical scale, they have a visual influence as a combined grouping with an apparent lateral spread, which forms a windfarm developed section of the sea skyline to the south-east of the view.			
Value:		High	
<ul style="list-style-type: none">• The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB and narrow band of sea that is part of the Heritage Coast.• Although it is not a specific viewpoint, as such, there are many facilities provided to aid enjoyment of the sea view from this location, including benches and viewing shelters oriented to the sea.• The view displays traditional seaside town qualities and interest but does not have the ‘natural’ qualities of views experienced from other parts of the coast. The scenic quality and interest is particularly influenced by the simplicity of the main elements in the view (shingle/sea/sky), the			

Viewpoint 13: Aldeburgh – Visual Assessment

open seascape, long shingle beach and their juxtaposition with seaside development and varied activities of people at the seafront.

- The scenic quality of views from Aldeburgh seafront are well known at a local level, are an important factor in attracting tourist visitors to the town and as source of inspiration and subject for the local art scene.
- Value of the views is also conveyed by planning and development of the town, with the buildings and streets aligned along the sea front.
- Views of the sea are likely to be valued by visitors to the holiday accommodation situated next to the beach.

Sensitivity to change: Combination of the value of the view and the susceptibility of each visual receptor

Receptor	Susceptibility to change	Sensitivity to change
Beach users (Aldeburgh Beach):	High	High
Residents of Southwold seafront:	High	High
Tourist visitors to the seafront:	High	High
Walkers/strollers using Crag Path alongside the beach:	High	High
People sitting/viewing from seafront benches:	High	High
People working along the front e.g. RNLI shop, vendors:	Medium-low	Medium-low
Recreational boating (e.g. from Aldeburgh Yacht Club):	Medium-low	Medium

Magnitude of change (predicted view is shown in **Figure 28.37e**)

Geographic extent:	Long distance
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 35.9km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from Aldeburgh Beach and the seafront areas of the settlement of Aldeburgh.	
Size/scale of change (construction, operation and decommissioning):	Medium

- Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.
- The turbines within the East Anglia TWO windfarm site will add further large-scale offshore wind farm element to the composition of the view, which is currently a relatively simply composed view of shingle beach, sea and sky layers.
- The East Anglia TWO windfarm site will be located fairly central to the main focus of the view east.

Viewpoint 13: Aldeburgh – Visual Assessment

- Lateral spread of the East Anglia TWO windfarm site will occupy approximately 29° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer. Open sea skyline would remain unaffected across the majority of the skyline to the north and south of the sea view. Towers and rotors of the majority of turbines will be visible above the skyline, with those to the west of the East Anglia TWO windfarm site appearing more prominent than those which recede with distance to the east and become partially hidden behind the skyline.
- Vertical height of the turbines will be relatively moderate in scale, due to their long distance offshore and the large scale of the seascape in the view. There are some scale indicators from which to compare the scale of the turbines. The turbines (300 m high turbines at 35.9km) will appear approximately twice the height of the Galloper turbines (180.5 m high Galloper turbines visible at 31.2km).
- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- The technological appearance of the turbines will relate rationally to the visual exposure and existing wind energy generation influences which are present in the existing view.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be viewed in the context of the existing Galloper and Greater Gabbard wind farms. While this means that it does not form an entirely new type of visible development, it does result in a northerly extension, increase in visual prominence and spread of the existing offshore windfarm element in the view.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Beach users (Aldeburgh Beach):	Significant, short-term, temporary	Significant, long-term, reversible
Residents of Southwold seafront:	Significant, short-term, temporary	Significant, long-term, reversible
Tourist visitors to the seafront:	Significant, short-term, temporary	Significant, long-term, reversible
Walkers/strollers using Crag Path alongside the beach:	Significant, short-term, temporary	Significant, long-term, reversible
People sitting/viewing from seafront benches:	Significant, short-term, temporary	Significant, long-term, reversible
People working along the front e.g. RNLI shop, vendors:	Not significant, short-term, temporary	Not significant, long-term, reversible
Recreational boating (e.g. from Aldeburgh Yacht Club):	Not significant, short-term, temporary	Not significant, long-term, reversible

Likelihood of effect:

Viewpoint 13: Aldeburgh – Visual Assessment

Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 35.9km. Visibility at or beyond this distance occurs approximately 26% of the time, over 10-year period 2007-2017 from Weybourne and 15% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.

Assessment of night-time visual effects (Viewpoint 13 Aldeburgh)

Baseline description:

- The existing night time view from Aldeburgh is well lit along the seafront in Aldeburgh, with housing and street lighting at the seafront.
- The open seascape includes numerous visible night-time lighting sources, including cardinal buoys, boats in nearshore waters and a frequent scattering of distant lights of commercial vessels and rigs on the skyline, which are characteristic in night-time views.
- The main difference in the view at night from Aldeburgh, compared to views from locations further north, is that the red aviation lighting of Greater Gabbard and/or Galloper windfarms are observed to be visible at night, at distances from 28.7km to the south-east. The red aviation warning lights are visible on significant peripheral wind turbines, as a 'string' of lights at variable heights above the skyline depending on the position of the visible turbines in the array.

Magnitude of change (night-time) (**Figure 28.38e**):

Low

- The predicted night time view from Viewpoint 13 in Aldeburgh is shown in the night-time photomontage representation in *Figure 28.78e*. The red, medium intensity lights on the nacelle of the perimeter WTGs of the East Anglia TWO windfarm site will be visible above the sea skyline in very good to excellent visibility and will introduce new lighting into a section of the view that currently has some visible lighting as part of the baseline.
- All aviation warning lights will flash synchronously throughout the East Anglia TWO windfarm site and will be able to be switched on and off by means of twilight switches.
- Aviation warning lights will allow for reduction in lighting intensity at and below the horizontal, when visibility from every wind turbine is more than 5km. The night-time photomontage representation in *Figure 28.37e* assumes full lighting intensity of the 2000cd warning lights in very good to excellent visibility conditions, as a worst-case (and is therefore likely to over-represent the likely visibility of aviation warning lighting experienced in reality).
- Marine navigational lights fitted at the platform level (approximately 10m above sea level) on significant peripheral structures will not be visible in the view, as they will be hidden behind the skyline at 35.9km from the viewpoint by the curvature of the earth.
- SAR lighting (200cd) of each non-periphery turbine will only be lit when conducting SAR operations in and around the East Anglia TWO windfarm site and are not expected to be visible at 35.9km. Other low intensity lights, such as for helicopter winching (green hoist lamp) and for illumination of signage (5cd) will not be visible.
- The yellow lighting of the construction operation and maintenance platform will be visible at night.

Significance of effects (night-time):

Construction and decommissioning:

Not significant, short-term, temporary

Operation:

Not significant, long-term, reversible

Viewpoint 13: Aldeburgh – Visual Assessment

Assessment of effects on residents of wider Aldeburgh settlement

Representative viewpoints:	Viewpoint 13
----------------------------	--------------

Sensitivity to change:

Residents of Aldeburgh:	High
-------------------------	------

Magnitude of change:

Aldeburgh is a popular seaside town to the north of River Alde. Its beach is an important draw for visitors and it has a high number of holiday homes as well as being an important centre for the arts and commerce. The high street runs parallel to the coast with the main approaches being from the west and north-west. A minor coastal road links to Thorpeness in the north and is set back in places from the beach by a slightly raised area of sandy grassland. There is no visibility of the sea from the high street however there are numerous connections from it to the long promenade that is fronted by residential and hotel properties as well as numerous other visitor facilities on both sides of the promenade, which provides direct access to the beach.

The flat nature of the land and intervening woodland and urban areas prevents visibility out to sea from the approaches into Aldeburgh from the west and north-west, however there is the possibility of views out to sea from along the coast road between Aldeburgh and Thorpeness when approaching Aldeburgh. Visibility of the East Anglia TWO windfarm will otherwise be largely constrained to the coastal edge and other areas of the settlement on slightly higher ground around Church Farm Rise, rather than other parts of the town.

Theoretical visibility from Aldeburgh is illustrated in the detailed ZTV in *Figure 28.37a*. The ZTV shows that a widespread area of the settlement has high theoretical visibility of 51-60 turbines, however from areas of Aldeburgh that are set-back from the immediate seafront, views of the East Anglia TWO windfarm site are generally screened by intervening buildings and vegetation within the built-up urban areas of the town. Views of the East Anglia TWO windfarm site are generally restricted to the immediate seafront locations of Aldeburgh with clear views of the sea, with the main area of Aldeburgh with visibility being along the coastal edge of the settlement, between Thorpe Road and along Market Cross Place, Crabbe Street and Crag Path (Viewpoint 13) along the seafront to the southern edge of Aldeburgh. There are also likely to be views from parts of northern Aldeburgh around Church Farm Rise/St Peter's Road/Victoria Road which are slightly elevated and afford an aspect to the sea to the east. The ZTV shows theoretical visibility dropping to areas with no visibility in a band of lower lying land along the western edges of the town. Due to the intervening urban areas of Aldeburgh which screen views, there is generally negligible visibility of the East Anglia TWO windfarm site from Aldeburgh town centre along Aldeburgh High Street; residential areas in northern part of Aldeburgh (to north of Victoria Road/east of Leiston Road); residential areas in southern part of Aldeburgh (to south Victoria Road); residential areas in western part of Aldeburgh (to north of Saxmundham Road (A1094)/south of Leiston Road). The magnitude of change arising as a result of the East Anglia TWO windfarm site on these areas of Aldeburgh is assessed as follows.

Geographic area of Aldeburgh:	Size/scale of change (construction, operation and decommissioning):
Area A: Aldeburgh seafront between Thorpe Road, Market Cross Place, Crabbe Street and Crag Path	Generally medium. See above magnitude of change assessment for Viewpoint 13.
Area B: Parts of Aldeburgh around Church Farm Rise/St Peter's Road/Victoria Road inland of immediate seafront which are slightly elevated.	Generally medium. See above magnitude of change assessment for Viewpoint 13.

Viewpoint 13: Aldeburgh – Visual Assessment

Area C: Aldeburgh town centre along Aldeburgh High Street; residential areas in northern part of Aldeburgh (to north of Victoria Road/east of Leiston Road); residential areas in southern part of Aldeburgh (to south Victoria Road); residential areas in western part of Aldeburgh (to north of Saxmundham Road (A1094)/south of Leiston Road).

Generally negligible. Views of the East Anglia TWO windfarm site are generally screened by intervening buildings and vegetation within the built-up areas of Aldeburgh from areas set-back and at distance from the seafront, including Aldeburgh town centre along Aldeburgh High Street; residential areas in northern part of Aldeburgh (to north of Victoria Road/east of Leiston Road); residential areas in southern part of Aldeburgh (to south Victoria Road); residential areas in western part of Aldeburgh (to north of Saxmundham Road (A1094)/south of Leiston Road).

Significance of effect:

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Residents of Aldeburgh seafront between Thorpe Road, Market Cross Place, Crabbe Street and Crag Path.	Significant, short-term, temporary	Significant, long-term, reversible
Residents of parts of Aldeburgh around Church Farm Rise/St Peter's Road/Victoria Road inland of immediate seafront which are slightly elevated.	Significant, short-term, temporary	Significant, long-term, reversible
Residents of the majority of Aldeburgh, including Aldeburgh town centre along Aldeburgh High Street; residential areas in northern part of Aldeburgh (to north of Victoria Road/east of Leiston Road); residential areas in southern part of Aldeburgh (to south Victoria Road); residential areas in western part of Aldeburgh (to north of Saxmundham Road (A1094)/south of Leiston Road).	Not significant, short-term, temporary	Not significant, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible to residents of Aldeburgh at 35.9km. Visibility at or beyond this distance occurs approximately 26% of the time, over 10-year period 2007-2017 from Weybourne and 15% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.

Viewpoint 14: Orford Castle – Visual Assessment

Designations:	Suffolk Coast and Heaths AONB. Heritage Coast. Conservation Area.	Grid reference:	E: 641944	N: 249868
		Elevation:	40.7m	
LCT/SCT:	Edge of LCT07 Estate Sandlands and LCT16 Rolling Estate Sandlands. Overlooks SCT03 Nearshore Waters.	View direction:	80°	
		Distance to East Anglia TWO windfarm site:	40.4km	
		Horizontal angle of turbine layout:	25.5°	
Receptors:	Viewpoint is representative of views experienced by visitors to the roof of Orford Castle. Due to its elevation position at the top of the castle, it is not representative of views experienced from the ground level around the castle or of views from within the village of Orford.			
Baseline description (existing view is shown in Figure 28.38b – 28.38c)				
<ul style="list-style-type: none">• The immediate foreground of the view is restricted by safety railings and towers at the top of Orford Castle.• The towers of the castle divide the view into three viewing 'sections'. The landscape is viewed through the safety railing bars in each of these three viewing sections.• The northern and southern viewing sections do not afford views of the sea but look inland across the agricultural landscapes around the Butley River to Rendlesham Forest and Tunstall Forest. The eastern viewing section affords views over Orford and Orfordness to the North Sea beyond.• In this view east, the settlement of Orford including housing and St Bartholomew Church occupy the foreground, set amongst woodland.• The River Ore forms the immediate backdrop to the village, scattered with numerous sailing boats.• Orfordness separates the river from the sea, a cusped foreland shingle spit, linked to the mainland at Aldeburgh and stretching along the coast to Orford and down to North Weir Point. It is divided from the mainland by the River Ore and Alde and is formed by longshore drift along the coast.• Several focal points of historic interest on Orfordness, including Orfordness Lighthouse, transmitting station masts and several World War II military buildings, pagados and black beacon.• Yachts and recreational sailing boats in nearshore waters, and fishing boats in offshore waters, are integral to the view. Large commercial vessels form point features on the distant skyline.• Galloper and Greater Gabbard Windfarms can be seen in very good/excellent visibility, at long distance, and although these turbines having relatively small vertical scale, they have a visual influence as a combined grouping with an apparent lateral spread, which forms a windfarm developed section of the sea skyline to the south-east of the view.				
Value:		High		
<ul style="list-style-type: none">• Seaward views from the roof of Orford Castle to Orford Ness are promoted online by Natural England as one of the attractions of the castle to visitors.• The roof of Orford Castle is a specific viewpoint, i.e. people visiting this location do it specifically to take in the view over the landscape from the viewing area atop the castle. It is likely to be				

Viewpoint 14: Orford Castle – Visual Assessment

valued by the people that make the effort to access the castle roof, but they also have an expectation of views over a wide range of different features.

- The view affords a unique perspective over the village of Orford and the setting of the wider landscape around Orfordness, however the bars of the safety railings reduce the scenic quality experienced.
- The viewpoint is located within and overlooks the Suffolk Coast and Heaths AONB, Heritage Coast and overlooks SSSI/SAC/SPA/NNR designations covering Orfordness.

Sensitivity to change: Combination of the value of the view and the susceptibility of each visual receptor

Receptor	Susceptibility to change	Sensitivity to change
Visitors to the roof of Orford Castle	High	High
Residents of Orford	Low	Low

Magnitude of change (predicted view is shown in *Figure 28.38e*):

Geographic extent:	Long distance
--------------------	---------------

The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 40.4km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from a very limited geographic area – just the top of Orford Castle. Due to its elevation position at the top of the castle, it is not representative of views experienced from the ground level around the castle or of views from within the village of Orford.

Size/scale of change (construction, operation and decommissioning):	Medium-low
---	------------

- While they do not screen views, the bars of the safety railings have the effect of somewhat separating the viewer from the wider landscape.
- The castle towers channel views into three specific viewing sections, two of which (to the south and north) will remain unchanged as a result of the East Anglia TWO windfarm site.
- The viewing section which faces directly east will be changed by the addition of the East Anglia TWO windfarm site.
- The East Anglia TWO windfarm site will form a new large-scale wind farm element in the backdrop to Orford and Orfordness.
- Lateral spread of the East Anglia TWO windfarm site will occupy approximately 26° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer. Open sea would remain unaffected across the majority of the north and south of the sea view.
- Towers and rotors of the majority of turbines will be visible above the skyline, with those to the west (closest to the coast) appearing more prominent.
- Vertical height of the turbines will be relatively small to moderate in scale, due to their long distance offshore and the large scale of the view. There are some scale indicators from which to compare the scale of the turbines. The galloper turbines (180.5m turbines at 32.5km) will appear approximately two-thirds of the height of the proposed turbines (300 m high turbines at 40.43km).
- The proposed turbines appear considerably smaller in vertical scale than the transmitting station masts on Orford Ness and are well below the height of the top of the church tower and skyline.

Viewpoint 14: Orford Castle – Visual Assessment

- The intervening landscape between the viewpoint and the sea has the effect of lengthening the perceived distance to the East Anglia TWO windfarm site (which is often foreshortened in other viewpoints located next to the sea).
- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- The technological appearance of the turbines may contrast with the perception of the 'natural' landscape of Orfordness, but will relate rationally to the visual exposure, 'bleakness' of Orfordness and the existing wind energy generation influences which are present in the existing view.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be viewed in the context of the existing Galloper and Greater Gabbard wind farms. While this means that it does not form an entirely new type of visible development, it does result in a northerly extension, increase in visual prominence and spread of the existing offshore windfarm element in the view.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Visitors to the roof of Orford Castle	Not significant, short-term, temporary	Not significant, long-term, reversible
Residents of Orford	Not significant, short-term, temporary	Not significant, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 40.4km. Visibility at or beyond this distance occurs approximately 20% of the time, over 10-year period 2007-2017 from Weybourne and 10% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.

Viewpoint 15: Shingle Street – Visual Assessment

Designations:	Suffolk Coast and Heaths AONB. Heritage Coast. SSSI/SPA/SAC/Ramsar.	Grid reference:	E: 636947	N: 242943
		Elevation:	5.7m	
LCT/SCT:	LCT5 Coastal Dunes and Shingle Ridges.	View direction:	74°	
		Distance to East Anglia TWO windfarm site:	45.8km	

Viewpoint 15: Shingle Street – Visual Assessment			
	Overlooks SCT03 Nearshore Waters.	Horizontal angle of turbine layout:	22.8°
Receptors:	Viewpoint is representative of views experienced by beach users, residents of Shingle Street and walkers using the Suffolk Coastal Path.		
Baseline description (existing view is shown in Figure 28.39b – 28.39c)			
<ul style="list-style-type: none">• Panoramic view east across extensive, long stretch of shingle beach to the open expanse of the North Sea, extending into the distance along the coastline.• Views north extend to Orfordness, where Orfordness lighthouse forms a focal point, while views south extend along shingle beach to the Martello Tower at Bawdsey Point.• Overwhelmingly simple view offshore to the east, consisting of layers of shingle, sea and sky which form a simple composition, with very few elements and a strong horizontal emphasis.• Vast, large-scale sea and skies, with perception of limitless expanse of sea stretching out into the distance in good weather/clear visibility. Simple scene, with few elements of activity and only a scattering of people.• Vegetated shingle habitat, with marram grass and sea kale occupies the foreground and increases the perception of the ‘natural’ landscape.• Shingle beach is backed by row of cottages known as Shingle Street. The isolation of this row of cottages in the view is compelling.• Tall communications masts on Orford Ness are visible to the north and form tall vertical elements.• Large vessels form focal features on the skyline and together with buoys, sailing and fishing boats are integral to the view.• Galloper and Greater Gabbard Windfarms can be seen in very good/excellent visibility, at long distance, and although these turbines having relatively small vertical scale, they have a visual influence as a combined grouping with an apparent lateral spread, which forms a windfarm developed section of the sea skyline to the south-east of the view.			
Value:		Medium-high	
<ul style="list-style-type: none">• The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB and narrow band of sea that is part of the Heritage Coast.• It is not a specific viewpoint, as such, there are no facilities provided to aid enjoyment of the sea view from this location and sea views are incidental to the informal recreational use of the shingle beach and valued by walkers on the Suffolk Coastal Path.• The scenic quality and interest is particularly influenced by the perception of remoteness and elemental, desolate, austere scenic qualities; the simplicity of the main elements in the view (shingle/sea/sky) and the exposed seascape and the long shingle beach.• The simplicity of the view and lack of complexity/variety of elements makes the view seem somewhat unremarkable.			
Sensitivity to change: Combination of the value of the view and the susceptibility of each visual receptor			
Receptor		Susceptibility to change	Sensitivity to change
Residents of Shingle Street:		High	High

Viewpoint 15: Shingle Street – Visual Assessment		
Walkers using the Suffolk Coastal Path:	High	High
Visitors/beach users:	High	High
Magnitude of change (predicted view is shown in Figure 28.39e):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 45.8km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from the area around Shingle Street and the shingle beach extending south to Bawdsey Beach.		
Size/scale of change (construction, operation and decommissioning):	Low	
<ul style="list-style-type: none">• Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.• Lateral spread of the East Anglia TWO windfarm site will occupy approximately 23° of the field of view, which is a limited portion of the wider 180° sea view available to the observer. The open sea view would remain unaffected across the majority of the field of view to the north and south of the East Anglia TWO windfarm site.• The lowers towers of all turbines will be hidden behind the skyline, with just the upper towers visible and the rotor blades visible sweeping from beyond the skyline (rather than being entirely above it). Turbines to the west (closest to the coast) will appear more prominent, while those to the east/north recede with distance.• Vertical height of the turbines will be relatively small in scale, due to their long distance offshore and the large scale of the view. The turbines (300 m high turbines at 45.8km) will appear similar in scale to the Galloper turbines visible to the south (180.5m turbines at 36km).• The proposed turbines appear considerably smaller in vertical scale than the transmitting station masts on Orford Ness and are also smaller in scale than Orfordness Lighthouse.• Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.• The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.• The technological appearance of the turbines may contrast with the perception of the 'natural' landscape of vegetated shingle but will relate rationally to other scenic qualities such as the visual exposure and 'bleakness'; and to features such as existing wind energy generation influences in the existing view.• Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.• The East Anglia TWO windfarm site will be viewed in the context of the existing Galloper and Greater Gabbard wind farms. While this means that it does not form an entirely new type of visible development, it does result in a northerly extension, increase in visual prominence and spread of the existing offshore windfarm element in the view. Gunfleet Sands (I, II and III) (34km) and London Array (37km) windfarms are also visible (in excellent visibility) to the south of the view.		

Viewpoint 15: Shingle Street – Visual Assessment

Significance of effect

Receptor	Significance of effect (construction and decommissioning):	Significance of effect (operation):
Residents of Shingle Street:	Not significant, short-term, temporary	Not significant, long-term, reversible
Walkers using the Suffolk Coastal Path:	Not significant, short-term, temporary	Not significant, long-term, reversible
Visitors/beach users:	Not significant, short-term, temporary	Not significant, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 45.8km. Visibility at or beyond this distance occurs approximately 15% of the time, over 10-year period 2007-2017 from Weybourne and 6% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.

Viewpoint 16: Bawdsey – Visual Assessment

Designations:	Suffolk Coast and Heaths AONB. Heritage Coast. SSSI/SPA/SAC/Ramsar.	Grid reference:	E: 635790	N: 240046
		Elevation:	5.1m	
LCT/SCT:	LCT05 Coastal Dunes and Shingle Ridges. Overlooks SCT03 Nearshore Waters.	View direction:	72°	
		Distance to East Anglia TWO windfarm site:	47.4km	
		Horizontal angle of turbine layout:	22.4°	
Receptors:	Viewpoint is representative of views experienced by visitors to Bawdsey Point and its World War II defences (East Lane car park) and walkers using the Suffolk Coastal Path.			

Baseline description (existing view is shown in **Figure 28.40b – 28.40c**)

- Panoramic view east directly out over the open expanse of the North Sea with no landscape foreground.
- Overwhelmingly simple view offshore to the east, consisting of sea and sky which form a simple composition, with very few elements and a strong horizontal emphasis.
- Vast, large-scale sea and skies, with perception of limitless expanse of sea stretching out into the distance in good weather/clear visibility.
- Views north extend to Orfordness, where Orfordness lighthouse forms a distant focal point (12km), while views south curtailed at Martello Tower on Bawdsey Point.

Viewpoint 16: Bawdsey – Visual Assessment

- Large vessels form focal features on the skyline and together with buoys, sailing and fishing boats are integral to the view. Increased influence of large-scale commercial vessels in nearshore waters around Felixstowe. Offshore rigs are also visible in the sea.
- Galloper and Greater Gabbard Windfarms have a stronger influence on the view from Bawdsey than in views from further north. They can be seen clearly in very good/excellent visibility to the south-east but have a relatively low influence on the view due to their scale and long distance offshore.
- Views north taking in Orford Ness, where there are several distant focal points of interest including Orfordness Lighthouse, transmitting station masts and military buildings.
- In the immediate area around Bawdsey Point, there are numerous remnant/intact coastal defences, in the form of several Martello towers; and later WWII coastal defence batteries and observation towers.

Value:	Medium
--------	--------

- The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB and narrow band of sea that is part of the Heritage Coast. The scenic qualities and seascape setting of these areas of the AONB are however, more influenced by offshore development influences and large scale shipping in the waters off Felixstowe to the south.
- It is not a specific viewpoint, as such, there are no facilities provided to aid enjoyment of the sea view from this location, however the outlook over the sea is fundamental to the sense of place and history.
- The scenic quality and interest is particularly influenced by the proximity and scale of the seascape; the simplicity of the main elements in the view (sea and sky) and the military history of the site and derelict wartime buildings, which contribute to a strong sense of place and austere scenic qualities.

Sensitivity to change: *Combination of the value of the view and the susceptibility of each visual receptor*

Receptor	Susceptibility to change	Sensitivity to change
Visitors to Bawdsey Point:	Medium	Medium
Walkers using the Suffolk Coastal Path:	Medium	Medium

Magnitude of change (predicted view is shown in **Figure 28.40e**):

Geographic extent:	Long distance
--------------------	---------------

The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 47.4km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from the area around Bawdsey Point and Bawdsey beach extending north.

Size/scale of change (construction, operation and decommissioning):	Low
---	-----

- Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.
- Lateral spread of the East Anglia TWO windfarm site will occupy approximately 22° of the field of view, which is a limited portion of the wider 180° sea view available to the observer. The majority

Viewpoint 16: Bawdsey – Visual Assessment

of the open sea skyline remaining unaffected to the north and south of the East Anglia TWO windfarm site.

- The lower towers of all turbines will be hidden behind the skyline, with just the upper towers visible and the rotor blades visible sweeping from beyond the skyline (rather than being entirely above it). Turbines to the west (closest to the coast) will appear more prominent, while those to the east/north recede with distance.
- Vertical height of the turbines will be relatively small in scale, due to their long distance offshore and the large scale of the view. The turbines (300 m high turbines at 47.4km) will appear similar in scale to the Galloper turbines visible to the south (180.5m turbines at 37km).
- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- The technological appearance of the turbines will relate rationally to the visual exposure and large scale of the seascape, and to features such as existing wind energy generation influences in the existing view.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be viewed in the context of the existing Galloper and Greater Gabbard wind farms. While this means that it does not form an entirely new type of visible development, it does result in a northerly extension, increase in visual prominence and spread of the existing offshore windfarm element in the view.
- The combined visibility of Galloper/Greater Gabbard with the East Anglia TWO windfarm site is clearest in views from the southern edges of the study area, such as Bawdsey.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Visitors to Bawdsey Point:	Not significant, short-term, temporary	Not significant, long-term, reversible
Walkers using the Suffolk Coastal Path:	Not significant, short-term, temporary	Not significant, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 47.4km. Visibility at or beyond this distance occurs approximately 15% of the time, over 10-year period 2007-2017 from Weybourne and 6% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.

Viewpoint 18: Orfordness – Visual Assessment				
Designations:	Suffolk Coast and Heaths AONB. Heritage Coast. SSSI/SPA/SAC/Ramsar.	Grid reference:	E: 644996	N: 248877
		Elevation:	5.8m	
LCT/SCT:	LCT05 Coastal Dunes and Shingle Ridges. Overlooks SCT03 Nearshore Waters.	View direction:	78°	
		Distance to East Anglia TWO windfarm site:	37.4km	
		Horizontal angle of turbine layout:	27.1°	
Receptors:	Viewpoint is representative of views experienced by visitors to Orford Ness including Orfordness Lighthouse; NNR and military buildings.			
Baseline description (existing view is shown in Figure 28.42b – 28.42c)				
<ul style="list-style-type: none">• Panoramic view east directly out over the open expanse of the North Sea with limited landscape foreground, consisting of just the shingle beach of Orfordness dropping away into the sea.• Overwhelmingly simple view offshore to the east, consisting of sea and sky which form a simple composition, with very few elements and a strong horizontal emphasis.• Vast, large-scale sea and skies, with perception of limitless expanse of sea stretching out into the distance in good weather/clear visibility.• Views across Orfordness where there are several focal points of historic interest in the view including Orfordness Lighthouse, transmitting station masts and several World War II military buildings, pagodas and black beacon.• Vegetated coastal shingle habitat occupies the foreground and increases the perception of the 'natural' landscape.• Tall communications masts on Orford Ness are visible to the north and form tall vertical elements.• Large vessels and rigs form focal features on the skyline and together with buoys, sailing and fishing boats are integral to the view.• Galloper and Greater Gabbard Windfarms can be seen in very good/excellent visibility, at long distance, and although these turbines having relatively small vertical scale, they have a visual influence as a combined grouping with an apparent lateral spread, which forms a windfarm developed section of the sea skyline to the south-east of the view.				
Value:		High		
<ul style="list-style-type: none">• The viewpoint is located within and overlooks the coastal edges of the Suffolk Coast and Heaths AONB, narrow band of sea that is part of the Heritage Coast and overlooks SSSI/SAC/SPA/NNR designations covering Orfordness.• It is not a specific viewpoint, as such, there are no facilities provided to aid enjoyment of the sea view from this location, however the outlook over the sea is fundamental to the sense of place and history and setting of the lighthouse.• The scenic quality and interest is derived particularly from the uniqueness of the dynamic landform and strangeness of the landscape resulting from the juxtaposition of the remoteness/isolation and captivating history, which provide a distinctive bleakness and austere scenic quality.				
Sensitivity to change: <i>Combination of the value of the view and the susceptibility of each visual receptor</i>				

Viewpoint 18: Orfordness – Visual Assessment		
Receptor	Susceptibility to change	Sensitivity to change
Visitors to Orfordness:	Medium-high	High
Magnitude of change (predicted view is shown in Figure 28.42e):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 37.4km and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from much of Orfordness and Orford Beach, but particularly the closest eastern shoreline.		
Size/scale of change (construction, operation and decommissioning):	Medium-low	
<ul style="list-style-type: none">• Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.• The East Anglia TWO windfarm site will be located fairly central to the main focus of the view east.• Lateral spread of the East Anglia TWO windfarm site will occupy approximately 27° of the field of view, which is a relatively limited portion of the wider 180° sea view available to the observer. Open sea skyline would remain unaffected across the majority of the skyline to the north and south of the sea view.• The turbines within the East Anglia TWO windfarm site will add further large-scale offshore wind farm element to the composition of the view, which is currently a relatively simply composed view of shingle beach, sea and sky layers, although there is existing visual clutter on the horizon in the form of wind turbines, large vessels and rigs/gas wells in the offshore waters.• Towers and rotors of the majority of turbines will be visible above the skyline, with those to the west of the East Anglia TWO windfarm site appearing more prominent than those which recede with distance to the east and become partially hidden behind the skyline.• Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.• Vertical height of the turbines will be relatively moderate in scale, due to their long distance offshore and the large scale of the seascape in the view. There are some scale indicators from which to compare the scale of the turbines. The turbines (300 m high turbines at 37.38km) will appear similar in the height of the Galloper turbines (180.5 m high Galloper turbines visible at 29.3km).• The East Anglia TWO windfarm site will be viewed in the context of the existing Galloper and Greater Gabbard wind farms, which are more visible in this view from Orfordness than other viewpoints, given its closer proximity to these existing wind farms. In this view particularly, the East Anglia TWO windfarm would not form an entirely new type of visible development, but will instead tend to be seen in the context of existing wind turbines on the horizon and result in a northerly extension to this influence. In this context, it is assessed as having a relatively lower (medium-low) magnitude of change, than if it introduced development into a view without a windfarm influence. Large vessels on the horizon will have reduced prominence/role as focal		

Viewpoint 18: Orfordness – Visual Assessment

points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.

- The technological appearance of the turbines will relate rationally to the visual exposure and existing wind energy generation influences which are present in the existing view.
- The East Anglia TWO windfarm site will also be viewed in the context of other installations on Orfordness, including the numerous tall masts of the transmitting station, such that other landscape features feel smaller and less significant.
- The movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Visitors to Orford Ness:	Not significant, short-term, temporary	Not significant, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 37.4km. Visibility at or beyond this distance occurs approximately 26% of the time, over 10-year period 2007-2017 from Weybourne and 15% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.

Viewpoint 19: Hopton-on-Sea – Visual Assessment

Designations:	None	Grid reference:	E: 653585	N: 299727
		Elevation:	9.1m	
LCT/SCT:	LCT 25 Urban and overlooks SCT04 Developed Nearshore Waters.	View direction:	140°	
		Distance to East Anglia TWO windfarm site:	43.2km	
		Horizontal angle of turbine layout:	16.3°	
Receptors:	Viewpoint is representative of views experienced by beach users (Hopton-on-Sea); tourist visitors (e.g. Hopton Holiday Village); residents of the coastal edges of Hopton-on-Sea (e.g. Sea View Rise); and walkers using the England Coastal Path.			
Baseline description (existing view is shown in Figure 28.43b – 28.43c)				
<ul style="list-style-type: none">• Panoramic view extending north along Hopton seafront to Great Yarmouth to take in open expanses of the North Sea to the east and low cliffs to the south.				

Viewpoint 19: Hopton-on-Sea – Visual Assessment

- Primarily a simple view offshore to the east, consisting of sea and sky which form a simple composition, with few elements out to sea and a strong horizontal emphasis. Large-scale sea and skies, with perception of limitless expanse of sea stretching out into the distance in good weather/clear visibility.
- To the north, the view extends across holiday parks/caravans at the coast and new sea defences along the low cliffs, to the urban areas of Great Yarmouth and its harbour.
- A number of vertical elements form landmarks in the view, particularly to north at Great Yarmouth harbour, including industrial buildings, cranes at the port, wind turbine towers and platforms under assembly for transport to the East Anglia ONE offshore windfarm.
- Scroby Sands Wind Farm is visible 10.7km to the north just off Great Yarmouth harbour.
- The view takes in the seafront at Hopton-on-Sea, with sandy beach busy with beach users in sunny weather and people viewing the scene from seafront benches along the low cliffs.
- Busy seascape, with the presence of fishing boats, recreational sailing boats and larger vessels in nearshore waters being integral to the view. Large commercial vessels form point features both on the skyline.
- Views east formed by the presence of sandy beach and the North Sea. Inherent simplicity of sea views have been changed by the extended development at the seafront and the busy beach/nearshore waters.
- There is no visibility of Galloper and Greater Gabbard Windfarms.

Value:	Medium
--------	--------

- The viewpoint is not located within, nor does it overlook, a nationally designated landscape, but is located on the England Coastal Path, which has recognised recreational value.
- Although it is not a specific viewpoint, as such, there are facilities provided to aid enjoyment of the sea view, including benches oriented to the sea and seafront promenade.
- The view displays some traditional 'seaside' qualities and interest arising from the interaction of the open, expansive seascape with development and the activities of people at the seafront and nearshore waters.
- Scenic qualities are influenced by notable development influences, including large scale industrial features, wind turbines/platforms at Great Yarmouth harbour, the existing Scroby Sands Windfarm and groynes/sea defences along the coastline.

Sensitivity to change: Combination of the value of the view and the susceptibility of each visual receptor

Receptor	Susceptibility to change	Sensitivity to change
Beach users (Hopton-on-Sea):	Medium-high	Medium-high
Tourist visitors (e.g. Hopton Holiday Village):	Medium-high	Medium-high
Residents of the coastal edges of Hopton-on-Sea (e.g. Sea View Rise):	High	Medium-high
Walkers using the England Coastal Path:	Medium-high	Medium-high
Magnitude of change (predicted view is shown in Figure 28.44e):		
Geographic extent:	Long distance	

Viewpoint 19: Hopton-on-Sea – Visual Assessment

The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 43.21km and is located to the south-east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from the seafront at Hopton-on-Sea.

Size/scale of change (construction, operation and decommissioning):	Low
---	-----

- Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.
- Lateral spread of the East Anglia TWO windfarm site will occupy approximately 16° of the field of view, which is a small portion of the wider 180° sea view available. The open sea skyline would remain unaffected across the majority of the field of view out to sea.
- Towers and rotors of the closest turbines particularly those at northern end of the East Anglia TWO windfarm site) will be visible above the skyline, but on the whole, the visibility of the turbines appears to be receding to the south and west, with lower towers and rotor blades hidden behind the horizon.
- Vertical height of the turbines will be relatively small in scale, due to their long distance offshore and the large scale of the seascape in the view. The turbines will appear smaller in height than the Scroby Sands turbines.
- The East Anglia TWO windfarm site is located in part of the view that is oblique to the main view and will not form a central focus to the main view east.
- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- Although there are notable amounts of visual movement in the view, the movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be viewed in the context of a number of notable development influences in the baseline, including large scale industrial features, wind turbines/platforms at Great Yarmouth harbour and the existing Scroby Sands Windfarm.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Beach users (Hopton-on-Sea):	Not significant, short-term, temporary	Not significant, long-term, reversible
Tourist visitors (e.g. Hopton Holiday Village):	Not significant, short-term, temporary	Not significant, long-term, reversible
Residents of the coastal edges of Hopton-on-Sea (e.g. Sea View Rise):	Not significant, short-term, temporary	Not significant, long-term, reversible

Viewpoint 19: Hopton-on-Sea – Visual Assessment

Walkers using the England Coastal Path:	Not significant, short-term, temporary	Not significant, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 43.2km. Visibility at or beyond this distance occurs approximately 20% of the time, over 10-year period 2007-2017 from Weybourne and 10% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.		

Viewpoint 20: Gorleston-on-Sea – Visual Assessment

Designations:	None	Grid reference:	E: 652912	N: 303337
		Elevation:	15.9m	
LCT/SCT:	LCT25 Urban and overlooks SCT04 Developed Nearshore Waters.	View direction:	142°	
		Distance to East Anglia TWO windfarm site:	46.4km	
		Horizontal angle of turbine layout:	14.9°	
Receptors:	Viewpoint is representative of views experienced by beach users (Gorleston-on-Sea beach); tourist visitors to the seafront e.g. around Lower Esplanade/Marine Esplanade; people sitting/viewing from seafront benches/gardens; walkers using the England Coastal Path; cyclists using NCNR 517; residents of Gorleston-on-Seafront (e.g. Marine Parade); people engaged in active sports (e.g. Tennis/Basketball/Trim Trails); and people working at Gorleston Harbour and industrial estate.			
Baseline description (existing view is shown in Figure 28.44b – 28.44c)				
<ul style="list-style-type: none">• Panoramic view extending north along Gorlseton-on-Sea seafront to take in open expanses of the North Sea to the east and low cliffs to the south.• Primarily a simple view offshore to the east, consisting of sea and sky which form a simple composition, with few elements out to sea and a strong horizontal emphasis. Large-scale sea and skies, with perception of limitless expanse of sea stretching out into the distance in good weather/clear visibility.• To the north, the view extends across Gorlseton-on-Sea seafront to the urban areas of Great Yarmouth and its harbour, which form the backdrop to the seafront. A number of large-scale built elements form landmarks, including industrial buildings, cranes, wind turbine towers and platforms under assembly, and the Scroby Sands Wind Farm is visible (7.4km) just off Great Yarmouth harbour.• The view takes in the traditional beach resort of Gorlseton-on-Sea seafront and formalised recreational facilities, with sandy beach busy with beach users/bathers in sunny weather, esplanade with footpath, lighting and seafront benches.				

Viewpoint 20: Gorleston-on-Sea – Visual Assessment

- View south extends along the coast to Lowestoft (Ness Point) where the Lowestoft Ness Point wind turbine is visible on the headland.
- Busy seascape, with the presence of fishing boats, recreational sailing boats and larger vessels in nearshore waters being integral to the view. Large commercial vessels form point features both on the skyline.
- Views east formed by the presence of sandy beach and the North Sea. Inherent simplicity of sea views have been changed by the extended development at the seafront and the busy beach/nearshore waters.
- There is no visibility of Galloper and Greater Gabbard Windfarms.

Value:	Medium
--------	--------

- The viewpoint is not located within, nor does it overlook, a nationally designated landscape, but is located on the England Coastal Path, which has recognised recreational value.
- Although it is not a specific viewpoint, as such, there are facilities provided to aid enjoyment of the sea view, including benches oriented to the sea and seafront promenade.
- The view displays some traditional 'seaside' qualities and interest arising from the interaction of the open, expansive seascape with development and the activities of people at the seafront and nearshore waters.
- Scenic qualities are already influenced by notable development influences, including large scale industrial features, wind turbines/platforms at Great Yarmouth harbour and the existing Scroby Sands Windfarm.

Sensitivity to change: Combination of the value of the view and the susceptibility of each visual receptor

Receptor	Susceptibility to change	Sensitivity to change
Beach users (Gorleston-on-Sea beach):	Medium-high	Medium-high
Tourist visitors to the seafront e.g. around Lower Esplanade/Marine Esplanade:	Medium-high	Medium-high
People sitting/viewing from seafront benches/gardens:	Medium-high	Medium-high
Walkers using the England Coastal Path:	Medium-high	Medium-high
Cyclists using NCNR 517:	Medium	Medium
Residents of Gorleston-on-Seafront (e.g. Marine Parade):	High	Medium-high
People engaged in active sports (e.g. Tennis/Basketball/Trim Trails):	Low	Medium-low

Magnitude of change (predicted view is shown in **Figure 28.44e**):

Geographic extent:	Long distance
--------------------	---------------

The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 46.4km and is located to the south-east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from the seafront at Gorleston-on-Sea.

Viewpoint 20: Gorleston-on-Sea – Visual Assessment

Size/scale of change (construction, operation and decommissioning):	Low
---	-----

- Due to the relatively low elevation of the viewpoint, simple form of the coastline and its long distance offshore, the East Anglia TWO windfarm site will be seen on and beyond the horizon, as a 'horizon development' to a large open seascape, rather than being viewed 'within' its seascape/landscape.
- Lateral spread of the East Anglia TWO windfarm site will occupy approximately 15° of the field of view, which is a small portion of the wider 180° sea view available. The open sea skyline would remain unaffected across the majority of the field of view out to sea.
- Towers and rotors of the closest turbines particularly those at northern end of the East Anglia TWO windfarm site) will be visible above the skyline, but on the whole, the visibility of the turbines appears to be receding to the south and west, with lower towers and rotor blades hidden behind the horizon.
- Vertical height of the turbines will be relatively small in scale, due to their long distance offshore and the large scale of the seascape in the view. The turbines will appear smaller in height than the Lowestoft Ness Point and Scroby Sands turbines.
- The East Anglia TWO windfarm site is located in part of the view that is oblique to the main view and will not form a central focus to the main view east.
- Turbines in the northern parts of the East Anglia TWO windfarm site appear less dense / more spaced out than those to the centre / south which will have a more clustered / denser appearance.
- Although there are notable amounts of visual movement in the view, the movement of rotor blades on an otherwise relatively still horizon, will introduce further complexity and visual movement to the view.
- Large vessels on the horizon will have reduced prominence/role as focal points when subsumed within the East Anglia TWO windfarm site, while also providing a scale reference.
- The East Anglia TWO windfarm site will be viewed in the context of a number of notable development influences in the baseline, including large scale industrial features, wind turbines/platforms at Great Yarmouth harbour and the existing Scroby Sands Windfarm and Lowestoft Ness Point wind turbine.

Significance of effect

Receptor	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Beach users (Gorleston-on-Sea beach):	Not significant, short-term, temporary	Not significant, long-term, reversible
Tourist visitors to the seafront e.g. around Lower Esplanade/Marine Esplanade:	Not significant, short-term, temporary	Not significant, long-term, reversible
People sitting/viewing from seafront benches/gardens:	Not significant, short-term, temporary	Not significant, long-term, reversible

Viewpoint 20: Gorleston-on-Sea – Visual Assessment		
Walkers using the England Coastal Path:	Not significant, short-term, temporary	Not significant, long-term, reversible
Cyclists using NCNR 517:	Not significant, short-term, temporary	Not significant, long-term, reversible
Residents of Gorleston-on-Seafront (e.g. Marine Parade):	Not significant, short-term, temporary	Not significant, long-term, reversible
People engaged in active sports (e.g. Tennis/Basketball/Trim Trails):	Not significant, short-term, temporary	Not significant, long-term, reversible
Likelihood of effect		
Very good or excellent visibility required for the East Anglia TWO windfarm site to be visible at 46.4km. Visibility at or beyond this distance occurs approximately 15% of the time, over 10-year period 2007-2017 from Weybourne and 6% of the time from Shoeburyness (Met Office Visibility Data). The Visibility from Vessels data suggests visibility from the coast at a distance of greater than 32.6km would occur less than 10% of the time.		

28.2.2 Settlements

10. Representative viewpoints have been agreed for all of the principal settlement receptors along the Suffolk and Norfolk coasts in the study area. The visual effects of the East Anglia TWO windfarm site on residents of these settlements are therefore assessed as an additional assessment following each representative viewpoint assessment in the viewpoint assessment tables in **section 28.2.1**, as follows:

- Lowestoft – Viewpoint 1.
- Kessingland – Viewpoint 2.
- Southwold – Viewpoint 4.
- Thorpeness – Viewpoint 12.
- Aldeburgh – Viewpoint 13.

28.2.3 Transport Routes

11. The preliminary assessment has identified that the East Anglia TWO windfarm site will have no significant effects on main transport routes through the study area (main roads and railway lines). There is an absence of major coastal roads and rail routes, due to the estuaries and intermittent ‘soft edged’ coastal landscape, with lightly trafficked access routes across the AONB to the coastline from main routes further inland. This has contributed to the relatively

undeveloped character of the Suffolk coast but also means that there are no major transport routes that will experience significant effects.

28.2.4 Recreational Routes

12. A full technical assessment of the effects of the East Anglia TWO windfarm site on users of the Suffolk Coastal Path is provided separately in **Appendix 28.6**.