East Anglia TWO Offshore Windfarm

Appendix 28.6

Cumulative Seascape, Landscape and Visual Assessment

Preliminary Environmental Information
Volume 3
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Revision Summary					
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Glossary of Acronyms

AONB	Area of Outstanding Natural Beauty
LCT	Landscape Character Type
NCNR	National Cycle Network Route
SCT	Seascape Character Type
SLVIA	Seascape, Landscape and Visual Impact Assessment
ZTV	Zone of Theoretical Visbility

Glossary of Terminology

Applicant	East Anglia TWO Limited.
Development area	The area comprising the Indicative Onshore Development Area and the Offshore Development Area
East Anglia TWO project	The proposed project consisting of up to 75 wind turbines, up to four offshore electrical platforms, up to one 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.
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.
Monitoring buoys	Buoys to monitor in situ condition within the windfarm, for example wave and metocean conditions.
Offshore cable corridor	This is the area which will contain the offshore export cable between offshore electrical platforms and landfall jointing bay.
Offshore development area	The East Anglia TWO windfarm site and offshore cable corridor (up to Mean High Water Springs).
Offshore electrical infrastructure	The transmission assets required to export generated electricity to shore. This includes inter-array cables from the wind turbines to the offshore electrical platforms, offshore electrical platforms, platform link cables and export cables from the offshore electrical platforms to the landfall.
Offshore electrical platform	A fixed structure located within the windfarm area, containing electrical equipment to aggregate the power from the wind turbines and convert it into a more suitable form for export to shore.
Offshore export cables	The cables which would bring electricity from the offshore electrical platforms to the landfall.
Offshore infrastructure	All of the offshore infrastructure including wind turbines, platforms, and cables.
Construction, operation and maintenance platform	A fixed structure required for construction, operation and maintenance personnel and activities.
Offshore platform	A collective term for the offshore construction, operation and maintenance platform and the offshore electrical platforms.
Platform link cable	An electrical cable which links one or more offshore platforms.
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.

28.6 Cumulative SLVIA

28.1 Potential Cumulative Impacts during Construction, Operation and Decommissioning: A Technical Assessment

28.1.1 Introduction

1. The cumulative Seascape, Landscape and Visual Impact Assessment (SLVIA) in this ***Appendix 28.6*** considers the combined (or total) effect of the construction and operation of the proposed East Anglia TWO project offshore infrastructure cumulatively with the proposed East Anglia ONE North project offshore infrastructure. The cumulative effects assessment focuses on the combined (or total) effect of the construction and operation of the proposed East Anglia TWO project and proposed East Anglia ONE project offshore infrastructure since the applications for both proposed projects are being submitted at the same time and it is the combined effect of both projects that is likely to be of interest to stakeholders (rather than the additional/incremental effect of the project being assessed, on top of a baseline with the other project).

2. This cumulative assessment focuses on the seascape, landscape and visual receptors that were assessed in full in the project alone technical assessments in ***Appendixes 28.2 – 28.5***. Receptors which were scoped out of the SLVIA in the project alone assessment contained in these appendices are also scoped out of the cumulative SLVIA in this ***Appendix 28.6***.

28.2 Cumulative Seascape Effects

SCT 03: Nearshore Waters

SCT 03: Nearshore Waters	
Value:	Medium-high
Sensitivity to change: *Combination of the value of the view and the susceptibility of each SCT*	
Susceptibility:	Medium
Sensitivity:	Medium-high
Cumulative magnitude of change (EA2 + EA1N):	
Geographic extent:	Regional
Geographically, the area of the SCT that may experience change as a result of visibility of the East Anglia TWO and East Anglia ONE North windfarm sites occurs in the band of nearshore waters, however this Seascape Character Type (SCT) extends along the majority of the Suffolk coastline in the study area, so there is potential for changes to occur over a regional extent. The Zone of	

Theoretical Visibility (ZTV) (***Figure 28.22***) shows that there will be combined theoretical visibility of both projects from almost the entirety of this SCT. The closest areas of the SCT, between Kessingland and Orfordness, will be most likely to experience change than the more distant areas of the SCT between Orfordness and Bawdsey. East Anglia ONE North will not be visible from the area of the SCT near Bawdsey.		
Size/scale of cumulative change (EA2 + EA1N) (construction, operation and decommissioning):		
Area A: Kessingland to Orfordness	Medium to medium-high	
• The proposed East Anglia TWO and East Anglia ONE North windfarm sites, in addition to the existing Galloper and Greater Gabbard windfarms, will create a consistent wind energy development influence in the distant offshore backdrop, to the relatively undeveloped coastline and foreshore. • Offshore windfarms will extend as a series of turbine array groupings across the backdrop of offshore waters from the Greater Gabbard/Galloper grouping in the southern part of the study area (offshore from Felixstowe/Clacton-on-Sea); to the East Anglia ONE North windfarm site in the northern part of the study area, offshore from Lowestoft. • The East Anglia TWO and East Anglia ONE North windfarm sites will result in the addition of further windfarm elements on the sea skyline, which will partially alter the visual relationship of the seascape with the coastline, resulting in partial loss of open sea skyline in the backdrop of offshore waters; appearing as an additional element in the simple sea/sky composition and forming a further focal point of orientation. • Interruption of expansive/limitless views offshore with the addition of further development offshore. • The East Anglia TWO and East Anglia ONE North windfarm sites will form an increase in wind energy influence, with their combined influence with the existing Galloper and Greater Gabbard wind farms resulting in offshore windfarms becoming a key characteristic of the offshore backdrop to the SCT.		
Area B: Orfordness to Bawdsey	Low	
• Cumulative changes resulting from the East Anglia TWO and East Anglia ONE North windfarm sites to existing seascape characteristics are notably reduced over the area of SCT between Orfordness and Bawdsey. The magnitude of change is assessed as low, primarily due to the longer distances between the SCT and the East Anglia TWO and East Anglia ONE North windfarm sites, which results in turbines becoming increasingly hidden behind the skyline and therefore having less prominence as an additional element and having less characterising role in the offshore backdrop to this area of the SCT. Galloper and Greater Gabbard windfarms have more influence as characteristic features in the offshore waters from this SCT.		
Significance of cumulative effect (EA2 + EA1N):		
Geographic area of SCT	Significance of cumulative effect (EA2 + EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2 + EA1N) (operation)
Area A: Kessingland to Orfordness	**Significant**, medium term, temporary	**Significant**, long-term, reversible
Area B: Orfordness to Bawdsey	**Not significant**, medium termrm, temporary	**Not significant**, long-term, reversible

SCT 04: Developed Nearshore Waters

SCT 04: Developed Nearshore Waters			
Designations:	Suffolk Heritage Coast and adjacent to the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB)	Viewpoints:	Viewpoints 1, 19, 20, 21, 22
Value:		Medium-low	
Sensitivity to change: *Combination of the value of the view and the susceptibility of each SCT*			
Susceptibility:	Medium-low		
Sensitivity:	Medium-low		
Cumulative magnitude of change (EA2 + EA1N):			
Geographic extent:		Regional	
Geographically, the area of the SCT that may experience change as a result of combined visibility of the East Anglia TWO and East Anglia ONE North windfarm sites is confined to the band of nearshore waters along the coast, between Lowestoft and Caister-on-Sea, however this SCT extends along the majority of the north Suffolk and south Norfolk coastline in the study area, so there is potential for changes to occur over a regional extent. The cumulative ZTV (***Figure 28.22***) shows that there will be combined theoretical visibility from almost the entirety of this SCT, with the closest areas of the SCT, near Lowestoft, most likely to experience change than the more distant areas of the SCT between Great Yarmouth and Caister-on-Sea.			
Size/scale of cumulative change (EA2 + EA1N) (construction, operation and decommissioning):			
Area A: Lowestoft area		Medium	
• The East Anglia TWO and East Anglia ONE North windfarm sites will form an increase in wind energy influence in the distant offshore backdrop to the relatively developed coastline and foreshore, with their combined influence resulting in offshore windfarms becoming a key characteristic of the offshore backdrop to this area of the SCT. • Greater Gabbard and Galloper are not visible and have no/negligible influence on the perceived character, therefore changes to this area of the SCT result only from the East Anglia TWO and East Anglia ONE North windfarm sites. • The East Anglia TWO and East Anglia ONE North windfarm sites will appear to form clearly separate developments, but with their combined lateral spread resulting in partial loss of open sea skyline in the backdrop of offshore waters; appearing as additional elements in the simple sea/sky composition and forming a further focal point of orientation.			
Area B: South Norfolk area (Caister-on-Sea to Hopton-on-Sea)		Low	
• Cumulative changes resulting from the East Anglia TWO and East Anglia ONE North windfarm sites to existing seascape characteristics are notably reduced over the area of SCT in South Norfolk, between Caister-on-sea and Nopton-on-Sea. The magnitude of change is assessed as low, primarily due to the longer distances between the SCT and the East Anglia TWO and East Anglia ONE North windfarm sites, which results in turbines becoming increasingly hidden behind			

the skyline and oblique to the orientation of the SCT coastline, and therefore having less prominence as additional elements and having less characterising role in the offshore backdrop to this area of the SCT. The East Anglia TWO and East Anglia ONE North windfarm sites will also appear to form clearly separate developments in the offshore backdrop with space between them and wider sea skyline retained to the east/north of the SCT. The influence of the existing Scroby Sands Windfarm in the nearshore waters of this area of the SCT is also more notable, and in this context, the changes arising from the proposed East Anglia TWO windfarm site appear notably diminished and offshore in comparison.		
Significance of cumulative effect (EA2 + EA1N):		
Geographic area of SCT	Significance of effect (EA2 + EA1N) (construction and decommissioning)	Significance of effect (EA2 + EA1N) (operation)
Area A: Lowestoft area	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Area B: South Norfolk area (Caister-on-Sea to Hopton-on-Sea)	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible

SCT 05: Coastal Waters

SCT 05: Coastal Waters	
Value:	Medium-low
Sensitivity to change: *Combination of the value of the view and the susceptibility of each SCT*	
Susceptibility:	Medium
Sensitivity:	Medium
Cumulative magnitude of change (EA2 + EA1N):	
Geographic extent:	Regional
Geographically, the area of the SCT that may experience change as a result of visibility of the East Anglia TWO and East Anglia ONE North windfarm sites is confined to the band of Coastal Waters along the coast, however this SCT extends along the majority of the Suffolk coastline in the study area, so there is potential for changes to occur over a regional extent. The cumulative ZTV (***Figure 28.22***) shows that there will be combined theoretical visibility of 41-48 turbines from almost the entirety of this SCT, however the closest areas of the SCT, approximately offshore between Covehithe and Aldeburgh, will be most likely to experience change than the more distant areas of the SCT to the north of Lowestoft and to the south of Orfordness.	
Size/scale of cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	
Area A: Coastal Waters offshore of Covehithe to Aldeburgh	Medium to medium-high

• The East Anglia TWO and East Anglia ONE North windfarm sites, in addition to the existing Galloper and Greater Gabbard windfarms, will create a consistent wind energy development influence in the distant offshore backdrop, to the relatively undeveloped coastline and foreshore. • Offshore windfarms will extend as a series of turbine array groupings across the backdrop of offshore waters from the Greater Gabbard/Galloper grouping in the southern part of the study area (offshore from Felixstowe/Clacton-on-Sea); to the East Anglia ONE North windfarm site in the northern part of the study area, offshore from Lowestoft. • The East Anglia TWO and East Anglia ONE North windfarm sites will result in the addition of further windfarm elements on the sea skyline, which will partially alter the visual relationship of the seascape with the coastline, resulting in partial loss of open sea skyline in the backdrop of offshore waters; appearing as an additional element in the simple sea/sky composition and forming a further focal point of orientation. • Interruption of expansive/limitless views offshore with the addition of further development offshore. • The East Anglia TWO and East Anglia ONE North windfarm sites will form an increase in wind energy influence, with their combined influence with the existing Galloper and Greater Gabbard wind farms resulting in offshore windfarms becoming a key characteristic of the offshore backdrop to the SCT.		
Area B: Coastal Waters offshore of south Norfolk (north of Lowestoft)	Medium to medium-low	
• Cumulative changes resulting from the East Anglia TWO and East Anglia ONE North windfarm sites to existing seascape characteristics are notably reduced over the area of SCT in South Norfolk, between Caister-on-sea and Nopton-on-Sea. The magnitude of change is assessed as low, primarily due to the longer distances between this area of the SCT and the East Anglia TWO and East Anglia ONE North windfarm sites, which results in turbines becoming increasingly hidden behind the skyline and oblique to the orientation of the SCT coastline, and therefore having less prominence as additional elements and having less characterising role in the offshore backdrop to this area of the SCT. The East Anglia TWO and East Anglia ONE North windfarm sites will also appear to form clearly separate developments in the offshore backdrop with space between them and wider sea skyline retained to the east/north of the SCT. The influence of the existing Scroby Sands Windfarm in the nearshore waters of this area of the SCT is also more notable, and in this context, the changes arising from the proposed East Anglia TWO windfarm site appear notably diminished and offshore in comparison.		
Area C: Coastal Waters offshore between Orfordness and Bawdsey	Low	
• Cumulative changes resulting from the East Anglia TWO and East Anglia ONE North windfarm sites to existing seascape characteristics are notably reduced over the area of SCT between Orfordness and Bawdsey. The magnitude of change is assessed as low, primarily due to the longer distances between the SCT and the East Anglia TWO and East Anglia ONE North windfarm sites, which results in turbines becoming increasingly hidden behind the skyline and therefore having less prominence as an additional element and having less characterising role in the offshore backdrop to this area of the SCT. Galloper and Greater Gabbard windfarms have more influence as characteristic features in the offshore waters from this SCT.		
Significance of effect (EA2 + EA1N):		
Geographic area of SCT	Significance of effect (EA2 + EA1N) (construction and decommissioning)	Significance of effect (EA2 + EA1N) (operation)
Area A: Coastal Waters offshore of Covehithe to Aldeburgh	**Significant**, medium-term, temporary	**Significant**, long-term, reversible

Area B: Coastal Waters offshore of south Norfolk (north of Lowestoft)	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Area C: Coastal Waters offshore between Orfordness and Bawdsey	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible

SCT 06: Offshore Waters

SCT 06: Offshore Waters		
Value:		Low
Sensitivity to change: *Combination of the value of the view and the susceptibility of each SCT*		
Susceptibility:	Medium	
Sensitivity:	Medium-low	
Cumulative magnitude of change (EA2 + EA1N):		
Geographic extent:		Regional
Almost all of the Offshore Waters SCT will experience combined theoretical visibility of the East Anglia TWO and East Anglia ONE North windfarm sites (***Figure 28.22***), however the closest areas of the SCT will experience most changes in the perceived character, where there is a direct association and exposure to changes. There is potential for changes to occur over a wider regional extent due to the geographic spread of theoretical visibility extending across much of the offshore waters SCT in the study area.		
Size/scale of change (EA2 + EA1N) (construction, operation and decommissioning):		
Offshore Waters within the study area:		Medium-high
• With the addition of the East Anglia TWO and East Anglia ONE North windfarm sites, four offshore wind farms will be located within this SCT, with a total of 286 wind turbines across the four projects (EA2 48 turbines; EA1N 42 turbines; Greater Gabbard 140 turbines and Galloper 56 turbines) located within a 90km stretch of the offshore waters of this SCT. • Turbine arrays will extend from the Greater Gabbard/Galloper grouping in the southern part of the SCT (offshore from Felixstowe/Clacton-on-Sea); to the East Anglia ONE North windfarm site in the northern part of the study area, offshore from Lowestoft. • In addition to the existing Galloper and Greater Gabbard windfarms, the addition of the East Anglia TWO and East Anglia ONE North windfarm sites results in large scale offshore windfarms forming one of the prevailing characteristics of the seascape, seeming to define the seascape as a windfarm seascape character type. • The addition of the East Anglia TWO and East Anglia ONE North windfarm sites results in a change in character from Offshore Waters SCT to 'Offshore Waters with Windfarms SCT'.		
Significance of effect (EA2 + EA1N):		

Geographic area of SCT	Significance of effect (EA2 + EA1N) (construction and decommissioning)	Significance of effect (EA2 + EA1N) (operation)
Offshore Waters within the study area	**Significant**, medium-term, temporary	**Significant**, long-term, reversible

28.3 Cumulative Landscape Effects

28.3.1 Landscape Character Types (LCT)

LCT 05: Coastal Dunes and Shingle Ridges

LCT 05: Coastal Dunes and Shingle Ridges	
Value:	High
Sensitivity to change: *Combination of the value of the view and the susceptibility of each LCT*	
Susceptibility:	Medium
Sensitivity:	Medium-high
Cumulative magnitude of change (EA2 + EA1N):	
Geographic extent:	Regional
Geographically, the area of the LCT that may experience change as a result of visibility of the East Anglia TWO and East Anglia ONE North windfarm sites is confined to the narrow band of Coastal Dunes and Shingle Ridges along the study area coast. The geographic extent of potential change resulting from the construction and operation of the East Anglia TWO and East Anglia ONE North offshore infrastructure on this LCT is confined in terms of it occurring almost entirely along the coast, within a narrow strip adjacent to the sea, however this LCT also extends along the majority of the coastline in the study area, so there is potential for cumulative changes to occur at a regional extent. The cumulative ZTV shows that there will be combined theoretical visibility from almost the entirety of this LCT along the coastal edge, and in general this high level of visibility will occur, although the dunes and shingle ridges do provide some visual concealment/screening at the micro-level amongst this landform.	
Size/scale of cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	
Area A: North of Lowestoft	Medium-low
• The East Anglia TWO and East Anglia ONE North windfarm sites will form an increase in wind energy influence in the distant offshore backdrop to the relatively developed coastline and foreshore, with their combined influence resulting in offshore windfarms becoming a key characteristic of the offshore backdrop to this area of the LCT. • Greater Gabbard and Galloper are not visible and have no/negligible influence on the perceived character, therefore changes to this area of the LCT result only from the East Anglia TWO and East Anglia ONE North windfarm sites in addition to Scroby Sands.	

• The East Anglia TWO and East Anglia ONE North windfarm sites will appear to form clearly separate developments, but with their combined lateral spread resulting in partial loss of open sea skyline in the backdrop of offshore waters; appearing as additional elements in the simple sea/sky composition and forming a further focal point of orientation. • The character of this stretch of the LCT to the north of Lowestoft is heavily influenced by the developed coast in Lowestoft, consisting of adjacent residential urban areas and extensive commercial/industrial development at Ness Point/Lowestoft Harbour. The East Anglia TWO and East Anglia ONE North windfarm sites results in a low change to the developed characteristics of this stretch of the LCT.	
Area B: Kessingland	Medium-high
• The East Anglia TWO and East Anglia ONE North windfarm sites will form an increase in wind energy influence in the distant offshore backdrop to the relatively developed coastline and foreshore, with their combined influence resulting in offshore windfarms becoming a key characteristic of the offshore backdrop to this area of the LCT. • Greater Gabbard and Galloper have negligible influence on the perceived character, therefore changes to this area of the LCT result only from the East Anglia TWO and East Anglia ONE North windfarm sites. • The East Anglia TWO and East Anglia ONE North windfarm sites will result in the addition of further windfarm elements on the sea skyline, which will partially alter the perceived relationship of this area of the LCT with the offshore waters that define its setting. • The East Anglia TWO and East Anglia ONE North windfarm sites result in partial loss of open sea skyline in the backdrop of offshore waters; appearing as an additional element in the simple sea/sky composition, forming a further focal point of orientation and interrupting the expansive/limitless views offshore with the addition of further development offshore.	
Area C: Southwold to the north side of Dunwich	Medium
• The East Anglia TWO and East Anglia ONE North windfarm sites will form an increase in wind energy influence in the distant offshore backdrop to the relatively undeveloped coastline, with their combined influence resulting in offshore windfarms becoming a key characteristic of the offshore backdrop to this area of the LCT. • The East Anglia TWO and East Anglia ONE North windfarm sites, in addition to the existing Galloper and Greater Gabbard windfarms, will create a relatively consistent, but distant wind energy development influence in the offshore backdrop that forms the seascape setting of the SCT. • The East Anglia TWO and East Anglia ONE North windfarm sites will appear to be merged on the sea skyline, forming one larger offshore windfarm, to the north of the Greater Gabbard/Galloper grouping. • The proposed East Anglia TWO and East Anglia ONE North windfarm sites will partially alter the visual relationship of the seascape setting of this LCT, resulting in partial loss of open sea skyline in the backdrop of offshore waters; appearing as an additional element in the simple sea/sky composition and interrupting the expansive/limitless views offshore. • The proposed East Anglia ONE North offshore infrastructure results in a low change/addition, with the combined magnitude of change only being slightly higher than that resulting from the proposed East Anglia TWO offshore infrastructure alone.	
Area D: South side of Dunwich Heath through to Orford Ness (including the shingle spit of Orford Ness)	Medium
• The proposed East Anglia TWO and East Anglia ONE North windfarm sites will form an increase in wind energy influence in the distant offshore backdrop to the relatively undeveloped coastline,	

with their combined influence resulting in offshore windfarms becoming a key characteristic of the offshore backdrop to this area of the LCT. • The proposed East Anglia TWO and East Anglia ONE North windfarm sites, in addition to the existing Galloper and Greater Gabbard windfarms, will create a relatively consistent, but distant wind energy development influence in the offshore backdrop that forms the seascape setting of the SCT. • The proposed East Anglia TWO and East Anglia ONE North windfarm sites will appear to be merged on the sea skyline, forming one larger offshore windfarm, to the north of the Greater Gabbard/Galloper grouping. • The East Anglia TWO and East Anglia ONE North windfarm sites will partially alter the visual relationship of the seascape setting of this LCT, resulting in partial loss of open sea skyline in the backdrop of offshore waters; appearing as an additional element in the simple sea/sky composition and interrupting the expansive/limitless views offshore. • The East Anglia ONE North offshore infrastructure results in a low change/addition, with the combined magnitude of change only being slightly higher than that resulting from the East Anglia TWO offshore infrastructure alone.	
Area E: Shingle Street to Bawdsey	Low
• Cumulative changes resulting from the East Anglia TWO and East Anglia ONE North windfarm sites to existing landscape characteristics are notably reduced over the area of LCT between Shingle Street and Bawdsey. • The magnitude of change is assessed as low, primarily due to the longer distances between the LCT and the East Anglia TWO and East Anglia ONE North windfarm sites, which results in turbines becoming increasingly hidden behind the skyline and therefore having less prominence as an additional element and having less characterising role in the offshore backdrop to this area of the SCT. • There is limited/no visibility of the East Anglia ONE North windfarm site. • Galloper and Greater Gabbard windfarms have more influence as characteristic features in the offshore waters from this SCT.	

Significance of cumulative effect (EA2 + EA1N):		
Geographic area of LCT	Significance of effect (EA2 + EA1N) (construction and decommissioning)	Significance of effect (EA2 + EA1N) (operation)
Area A: North of Lowestoft	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Area B: Kessingland	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Area C: Southwold to the north side of Dunwich	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Area D: South side of Dunwich Heath through to Orford Ness (including the shingle spit of Orford Ness)	**Significant**, medium-term, temporary	**Significant**, long-term, reversible

Area E: Shingle Street to Bawdsey	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible

LCT 06: Coastal Levels

LCT 06: Coastal Levels	
Value:	High
Sensitivity to change: *Combination of the value of the view and the susceptibility of each LCT*	
Susceptibility:	Low
Sensitivity:	Medium
Cumulative magnitude of change (EA2 + EA1N):	
Geographic extent:	Regional
Geographically, the area of the LCT that may experience change as a result of visibility of the East Anglia TWO and East Anglia ONE North windfarm sites tends to be restricted to the areas of the LCT that are closest to the coast, with visibility becoming limited as these marshlands extend inland along river valleys/estuaries. Although the geographic extent of potential change is restricted to areas of the LCT closest to the coast, this LCT occurs in multiple separate locations along the coastline in the study area, where the main rivers meet the coast, so there is potential for cumulative changes to occur at a regional extent. The cumulative ZTV (***Figure 28.22***) shows that there will be areas of combined theoretical visibility from parts of this LCT near to the coast, but that visibility becomes low or negligible further inland along each of the main river valleys/estuaries. The magnitude of change on each main area of this LCT is assessed as follows.	
Size/scale of cumulative change (construction, operation and decommissioning):	
Area A: Marshes flanking the Hundred River from Kessingland Beach westward through the Kessingland Levels up to Henstead	Low
• Area A extends along the Hundred River from the coast at Kessingland Beach, forming a narrow area that lies perpendicular to the coast. The eastern end of this area of the LCT is located closest to the coast and most likely to experience change, however there is a notable degree of concealment/screening by the dunes/shingle ridges and holiday parks at Kessingland Beach between this LCT and the sea. • The sea/coast and East Anglia TWO and ONE North windfarm site will be intermittently visible from the LCT, due to the long shingle ridge running along at the edge of the LCT which obscures views, such that limited visibility of the East Anglia TWO windfarm site. • The LCT extends several kilometres inland along the Hundred River, where coastal characteristics/experience of the sea and the potential changes resulting from the East Anglia TWO and East Anglia ONE North windfarm sites become limited moving further inland. • The East Anglia TWO and East Anglia ONE North windfarm sites will have a limited cumulative change to the key characteristics of the immediate marshland surroundings that define the landscape character.	

Area B: Marshes flanking the River Blyth and Buss Creek from Walberswick westward up to Wolsey Bridge	Havenbeach and Busscreek Marshes, inland across Reydon Marshes to Wangford: Low Southwold Harbour and mouth of the River Blyth: Medium
• Negligible cumulative change to the existing landscape character of the LCT in the area between Southwold and Reydon, where there is a notable degree of concealment/screening by the urban areas of Southwold between this part of the LCT and the sea. • Negligible cumulative change to the character of Havenbeach Marshes, where the ZTV shows that there will be no visibility due to the concealment/screening by the intervening dunes/shingle beach landform between the marshes and the sea. • The LCT extends approximately 9km inland along the River Blyth and River Wang. Rising land and woodlands in adjacent landscapes around the marshes tend to confine views. Coastal characteristics/experience of the sea and the potential changes resulting from the East Anglia TWO and East Anglia ONE North windfarm sites become limited moving further inland across Reydon Marshes, Hen Reedbeds NNR and Priory Marshes. • The eastern end of this area of the LCT, around Southwold Harbour and the mouth of the River Blyth is located closest to the coast and most likely to experience changes resulting from the East Anglia TWO and East Anglia ONE North windfarm sites. In this localised area, the East Anglia TWO and East Anglia ONE North windfarm sites will result in some cumulative changes to the open, wide, exposed characteristics near the sea, forming an increase in wind energy influence in the distant offshore backdrop to the relatively undeveloped coastline, with their combined influence resulting in offshore windfarms becoming a key characteristic of the offshore backdrop to this area of the LCT.	
Area C: Marshes of the Minsmere Level extending westward to Eastbridge in Theberton	The Scrape: Negligible Island Mere and North Levels: Low
• The Scrape: negligible cumulative change to the existing landscape character of the LCT in the area around ‘the Scrape’ due to negligible/no visibility of the East Anglia TWO and East Anglia ONE North windfarm sites from this low-lying area. Views are concealed/screened by intervening dunes/shingle landform rising between this LCT and the sea. • Island Mere and North Levels: minor alteration to the pattern of landscape elements/perception of landscape pattern, with some visibility of the East Anglia TWO and East Anglia ONE North windfarm sites located at long distance outside the LCT (over 35km). The East Anglia TWO and East Anglia ONE North windfarm sites is likely to result in change through the introduction of a distant array of wind turbines beyond the horizon formed by dunes/shingle ridges in the eastern, coastal backdrop to the marshland/coastal levels. The introduction of wind turbines in the coastal backdrop located well outside and at long distance from the LCT would constitute a new, but relatively minor alteration to the perceived character, at variance to the relatively undeveloped, flat, open and exposed character of the LCT, but removed from and in the background to the main elements that define character.	
Area D: The area of a former large mere lying to the south of the existing Meare at Thorpeness and the northern outskirts of Aldeburgh	Low
• Low change to the existing landscape character of this area of the LCT due to the limited visibility of the East Anglia TWO and East Anglia ONE North windfarm sites from this area. Views are largely concealed/screened by a combination of the intervening dune/shingle landform between this LCT and the sea; the extensive areas of woodland around the Meare at Thorpeness and lining Thorpe Road; and intervening built-up areas of Thorpeness.	

Area E: Marshes flanking the sides of the Rivers Alde, Ore and Butley from Aldeburgh south past Orford, to East Lane in Bawdsey	Low	
• Low change to the existing landscape character of this area of the LCT due to the limited visibility of the East Anglia TWO windfarm site from this area and negligible/no visibility of the East Anglia ONE North windfarm site. Direct views of the sea and the East Anglia TWO and East Anglia ONE North windfarm sites are largely concealed/screened by the extensive intervening dune/shingle landform of Orford Ness, which lies between this LCT and the sea. • The East Anglia ONE North offshore infrastructure results in a negligible change/addition, with the combined magnitude of change being the same as that resulting from the East Anglia TWO offshore infrastructure alone.		
Area F: Marshes flanking the Deben estuary, from Bawdsey to Ramsholt on the north side	Negligible	
• Negligible change to the existing landscape character of this area of the LCT due to negligible/no visibility of the East Anglia TWO and East Anglia ONE North windfarm sites from this low-lying area. Views are concealed/screened by intervening landform rising between this LCT and the sea.		
Significance of effect (EA2 + EA1N):		
Geographic area of LCT	Significance of effect (EA2 + EA1N) (construction and decommissioning)	Significance of effect (EA2 + EA1N) (operation)
Area A: Marshes flanking the Hundred River from Kessingland Beach westward through the Kessingland Levels up to Henstead	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Area B: Marshes flanking the River Blyth and Buss Creek from Walberswick westward up to Wolsey Bridge	**Not significant**, medium term, temporary	**Not significant**, long-term, reversible
Area C: Marshes of the Minsmere Level extending westward to Eastbridge in Theberton	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Area D: The area of a former large mere lying to the south of the existing Meare at Thorpeness and the northern outskirts of Aldeburgh	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Area E: Marshes flanking the sides of the Rivers Alde, Ore and Butley from Aldeburgh south past Orford, to East Lane in Bawdsey	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Area F: Marshes flanking the Deben estuary, from Bawdsey to Ramsholt on the north side	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible

LCT 07: Estate Sandlands

LCT 07: Estate Sandlands	
Value:	Medium-high
Sensitivity to change: *Combination of the value of the view and the susceptibility of each LCT*	
Susceptibility:	Locally medium at coast, but generally low over most of the LCT
Sensitivity:	Locally medium at coast, but generally low over most of the LCT
Cumulative magnitude of change:	
Geographic extent:	Regional
Geographically, the area of the LCT that may experience cumulative change as a result of visibility of the East Anglia TWO and East Anglia ONE North windfarm sites tends to be restricted to the areas of the LCT that are closest to the coast, with visibility becoming limited as the Estate Sandlands extend inland. Although the geographic extent of potential cumulative change is restricted to areas of the LCT closest to the coast, this LCT occurs in multiple separate locations along the coastline in the study area, so there is potential for cumulative changes to occur at a regional extent. The cumulative ZTV (***Figure 28.22***) shows that there will be areas of combined visibility from parts of this LCT near to the coast, but that the extent of visibility becomes much more intermittent further inland, with areas of low or no visibility. The magnitude of change on each main area of this LCT is assessed as follows.	
Size/scale of change (EA2 + EA1N) (construction, operation and decommissioning):	
Area A: Covehithe to Benacre and Easton Bavents	Medium
• The East Anglia TWO and East Anglia ONE North windfarm sites will form an increase in wind energy influence in the distant offshore backdrop to the relatively developed coastline and foreshore, with their combined influence resulting in offshore windfarms becoming a key characteristic of the offshore backdrop to this area of the LCT. • Greater Gabbard and Galloper have negligible influence on the perceived character, therefore changes to this area of the LCT result only from the East Anglia TWO and East Anglia ONE North windfarm sites. • The East Anglia TWO and East Anglia ONE North windfarm sites will result in the addition of further windfarm elements on the sea skyline, which will partially alter the perceived relationship of this area of the LCT with the offshore waters that define its setting. • The East Anglia TWO and East Anglia ONE North windfarm sites result in partial loss of open sea skyline in the backdrop of offshore waters; appearing as an additional element in the simple sea/sky composition, forming a further focal point of orientation and interrupting the expansive/limitless views offshore with the addition of further development offshore.	
Area B: Southwold Common	Negligible
• Negligible change to the existing landscape character of this area of the LCT due to the limited visibility of the East Anglia TWO and East Anglia ONE North windfarm sites from this area. Views from Southwold Common to the East Anglia TWO and ONE North windfarm site entirely concealed/screened by the intervening urban area of Southwold (Illustrative Viewpoint A).	

Area C: Walberswick to Westleton and Dunwich	Areas between Walberswick and Westlon: Negligible Localised area at Dunwich Heath/Cliffs: Medium-low	
• Walberswick and Westlon: Negligible change to the existing landscape character of this area of the LCT due to the limited visibility of the East Anglia TWO and East Anglia ONE North windfarm sites from this area. Views of the East Anglia TWO and ONE North windfarm site almost entirely concealed/screened by the intervening plantation forests (Dunwich Forest), tree belts and hedgerows in the landscape. • Dunwich Heath/Cliffs: localised area with a medium-low cumulative change to existing landscape character around Dunwich Heath, Dunwich and Minsmere Cliffs where this area of the LCT extends to meet the sea and its coastal edges are influenced by the open sea and exposed to changes resulting from the East Anglia TWO and East Anglia ONE North windfarm sites. The East Anglia ONE North offshore infrastructure results in a low change/addition, with the combined magnitude of change being the same as that resulting from the East Anglia TWO offshore infrastructure alone.		
Area D: Leiston and Aldringham to Snape, Thorpeness and Aldeborough	Areas between Leiston, Aldringham, Friston, Snape and Aldeburgh: Negligible Localised area at Sizewell Cliffs to Thorpe Ness: Medium-low	
• Inland areas of LCT between Leiston, Aldringham, Friston, Snape and Aldeburgh: Negligible change to the existing landscape character of this area of the LCT due to the limited visibility of the East Anglia TWO and East Anglia ONE North windfarm sites from this area. Views of the East Anglia TWO and ONE North windfarm site almost entirely screened by intervening plantation forests, tree belts and hedgerows. • Localised area at Sizewell Cliffs to Thorpe Ness: localised area with a medium-low change to existing landscape character around Sizewell Cliffs to Thorpe Ness where this area of the LCT extends to meet the sea and its coastal edges are influenced by the open sea and exposed to changes resulting from the East Anglia TWO and East Anglia ONE North windfarm sites. The East Anglia ONE North offshore infrastructure results in a low change/addition, with the combined magnitude of change being the same as that resulting from the East Anglia TWO offshore infrastructure alone.		
Area E: Hollesley, Rendlesham and Tunstall Forests to Sudbourne	Negligible	
• Negligible change to the existing landscape character of this area of the LCT due to the limited visibility of the East Anglia TWO and East Anglia ONE North windfarm sites from this area and its distance inland away from the coast. Views of the East Anglia TWO and ONE North windfarm site almost entirely concealed/screened by the intervening plantation forests (Tunstall and Rendlesham Forests), tree belts and hedgerows in the landscape.		
Significance of cumulative effect (EA2 + EA1N):		
Geographic area of LCT	Significance of effect (EA2 + EA1N) (construction and decommissioning)	Significance of effect (EA2 + EA1N) (operation)
Area A: Covehithe to Benacre and Easton Bavents	**Significant**, medium-term, temporary	**Significant**, long-term, temporary

Area B: Southwold Common	**Not significant**, medium-term, temporary	**Not significant**, long-term, temporary
Area C: Walberswick to Westleton and Dunwich	**Not significant**, medium-term, temporary	**Not significant**, long-term, temporary
Area D: Leiston and Aldringham to Snape, Thorpeness and Aldeborough	**Not significant**, medium-term, temporary	**Not significant**, long-term, temporary
Area E: Hollesley, Rendlesham and Tunstall Forests to Sudbourne	**Not significant**, mediumt-term, temporary	**Not significant**, long-term, temporary

LCT 08: Open Coastal Fens

LCT 08: Open Coastal Fens	
Value:	High
Sensitivity to change: *Combination of the value of the view and the susceptibility of each LCT*	
Susceptibility:	Low
Sensitivity:	Medium
Cumulative magnitude of change (EA2 + EA1N):	
Geographic extent:	Local
Geographically, the area of the LCT that may experience change as a result of visibility of the East Anglia TWO and East Anglia ONE North windfarm sites is contained to Corporation Marshes between Walberswick and Dingle Great Hill; and potentially from Dingle Marshes. The cumulative ZTV (***Figure 28.22***) shows that there will be limited theoretical visibility from Westwood Marshes and views from this area are screened by Dunwich Forest. The ZTV also shows no visibility from Reedland Marshes, where the intervening dunes/shingle ridges screen views.	
Size/scale of change (EA2 + EA1N) (construction, operation and decommissioning):	
Area A: Corporation and Dingle Marshes:	Low
• The sea/coast and East Anglia TWO and ONE North windfarm site will be intermittently visible from the LCT, due to the long shingle ridge running along at the edge of the LCT which obscures views. • The introduction of the East Anglia TWO windfarm site in the coastal backdrop located well outside and at distance from the LCT (over 32km) would constitute a new, but relatively minor alteration to the perceived character, at variance to the relatively undeveloped, flat, open and uncluttered character of the LCT, but removed from and in the background to the main elements that define character.	

• The East Anglia ONE North offshore infrastructure results in a low change/addition, with the combined magnitude of change being the same as that resulting from the East Anglia TWO offshore infrastructure alone.		
Area B: Westwood Marshes:	Negligible	
Area C: Reedland Marshes:	Negligible	
Significance of cumulative effect (EA2 + EA1N):		
Geographic area of LCT	Significance of effect (EA2 + EA1N) (construction and decommissioning)	Significance of effect (EA2 + EA1N) (operation)
Area A: Corporation and Dingle Marshes:	**Not significant**, medium-term, temporary	**Not significant**, long-term, temporary
Area B: Westwood Marshes:	**Not significant**, medium-term, temporary	**Not significant**, long-term, temporary
Area C: Reedland Marshes:	**Not significant**, mediumterm, temporary	**Not significant**, long-term, temporary

28.3.2 Landscape Designations

Suffolk Coast and Heaths AONB (including Suffolk Heritage Coast)

Suffolk Coast and Heaths AONB (including Suffolk Heritage Coast)	
Sensitivity to change (defined by LCT)*:	
Coastal Dunes and Shingle Ridges (05):	Medium-high
Coastal Levels (06):	Low
Estate Sandlands (07):	Locally medium-high at coast, but generally low over most of the LCT
Open Coastal Fens (08):	Low
* Full narrative assessment of susceptibility and sensitivity to change of LCTs within the AONB contained within technical assessment of LCTs in Section 28.2.1 of this of Appendix 28.3.	
Cumulative magnitude of change (construction, operation and decommissioning) (EA2 + EA1N) to AONB special qualities:	
Landscape quality:	Medium-high change to landscape quality of Coastal Dunes and Shingle Beaches LCT (05) near Kessingland Beach (Area B) and the coastal edges of the Estate Sandlands LCT (07) between

	Covehithe to Benacre and Easton Bavents area (Area A). Medium change to landscape quality of Coastal Dunes and Shingle Beaches LCT (05) between Southwold and Orford Ness (Areas C and D. Low change to landscape quality of Open Coastal Fens (08) LCT, Coastal Levels LCT (06) and inland areas of Estate Sandlands LCT (07) within AONB.
• The East Anglia TWO and East Anglia One North windfarm site will introduce a further element into the seascape setting of the coastal areas of the AONB, adding to the juxtaposition of different elements and landscape character across a relatively small area. • The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites represents a notable horizontal spread of developed skyline in the offshore setting of the AONB, which will result in highest change to the landscape quality of the AONB between Kessingland Beach (LCT 5B) and the coastal edges of the Estate Sandlands LCT (LCT 7A) between Covehithe to Benacre and Easton Bavents. • The construction and operation of the East Anglia TWO and East Anglia ONE North offshore infrastructure will have a relatively limited influence on the strong overall character of the AONB, with its varied and distinctive landscapes continuing to define its overall character. • The East Anglia TWO and East Anglia ONE North windfarm site will add a further large-scale energy generation element influencing the coast and its seascape setting, in addition to other long-established elements such as Sizewell Nuclear Power Station and more recent offshore windfarms (Greater Gabbard and Galloper), adding to the cluttered seascape horizon.	
Scenic quality:	Medium-high change to scenic quality of Coastal Dunes and Shingle Beaches LCT (05) near Kessingland Beach (Area B) and the coastal edges of the Estate Sandlands LCT (07) between Covehithe to Benacre and Easton Bavents area (Area A). Medium change to scenic quality of Coastal Dunes and Shingle Beaches LCT (05) between Southwold and Orford Ness (Areas C and D). Low change to landscape quality of Open Coastal Fens (08) LCT, Coastal Levels LCT (06) and inland areas of Estate Sandlands LCT (07) within AONB.
• The East Anglia TWO and East Anglia ONE North windfarm site will introduce a further element into the seascape setting of the coastal areas of the AONB, adding to the juxtaposition of different elements and landscape character across a relatively small area. • The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites represents a notable horizontal spread of developed skyline in the offshore setting of the AONB, which will result in highest change to the scenic quality of the AONB between Kessingland Beach (LCT 5B) and the coastal edges of the Estate Sandlands LCT (LCT 7A) between Covehithe to Benacre and Easton Bavents. • The construction and operation of the offshore infrastructure will result in a partial loss of open sea skyline in long distance and panoramic views out to sea and along the Heritage Coast, from elevated vantage points, due to the lateral spread of turbines on the seaward horizon experienced from the AONB coastline. Addition of elements which may change the 'uncluttered' characteristic of the seascape, with the turbines likely to increase visual clutter/complexity in the pattern of	

elements and introduce a new wind turbine 'layer' to the simple seascape composition. The turbines may partially alter the 'vastness' of the seaward aspect of the AONB coastline, by curtailing part of the 'limitless' aspect out to sea, but due to its long distance offshore, would not interrupt the 'rhythm' dictated by river and estuaries along the coast. • The East Anglia TWO and East Anglia ONE North windfarm sites will introduce further wind energy development influence in the offshore backdrop to the coastal cliffs, shingle spits, estuaries and beaches that define the coastal landform of the AONB. • Some changes to the juxtaposition of colours and textures in coastal areas, with the introduction of modern white/grey wind turbines in the seascape backdrop, contrasting to the natural colours/textures of sand dunes, shingle beaches, reedbeds, mud flats and heathland at the coast. • The technological appearance of the turbines is likely to contrast with the perceived naturalness of the vegetated shingle habitat/reedbeds/marshes/low cliffs that define the character of the coast, however they will also relate rationally to the exposure, large scale and austere character of parts of the coastal landscape. • The turbines within the East Anglia TWO and East Anglia ONE North windfarm sites will add a new large-scale offshore wind farm element to the sea element of the simply composed character of sea and big 'Suffolk skies', however the vertical height of the turbines relatively to the vast skies will be relatively small / moderate in scale, due to their long distance offshore (over 30km) and the large scale of the seascape.	
Relative wildness:	Medium-low change to relative wildness of Coastal Dunes and Shingle Beaches LCT (05) and the coastal edges of the Estate Sandlands LCT (07). Low change to landscape quality of Open Coastal Fens (08) LCT, Coastal Levels LCT (06) and inland areas of Estate Sandlands LCT (07) within AONB.
• Introduction of further development influence on the relatively undeveloped character of the Suffolk coast, although occurring at long distance offshore in the seascape setting of the AONB and in the context of existing energy generation influences in the sea and on the coast. • Introduction of modern, man-made structures and increase in evidence of apparent human activity may change the perceived wildness attributes from pockets of coastal AONB landscapes which have relative wildness associated with coast. While on the one hand wind energy development influence may contrast with this perception of wildness, wind turbines may also relate legibly to the coastal exposure and inclement conditions experienced. • The construction and operation of the East Anglia TWO and East Anglia ONE North offshore infrastructure will have no direct effects on the semi-natural habitats evident along the coastline (Sandlings heaths, marshes, reedbeds, estuaries), but its technological appearance may contrast with the perceived naturalness of these habitats evident in the least developed parts of the AONB coastline. • The changes arising from the construction and operation of the East Anglia TWO and East Anglia ONE North offshore infrastructure occur in the context of existing energy generation developments, which already influence the perceived wildness of the AONB, including operational offshore windfarms (Greater Gabbard and Galloper) and the Sizewell A and B Nuclear Power Station. In this context, it represents an increase in energy development influence/an increase in an existing characteristic of the AONB coastline, rather than an entirely new influence. • The vertical height of the turbines relative to the vast skies will be relatively small / moderate in scale, due to their long distance offshore (over 30km) and the large scale of the seascape and will relate rationally to the sense of openness and exposure along the AONB coastline.	
Relative tranquillity:	Negligible change to relative tranquillity of Coastal Dunes and Shingle Beaches LCT (05), Estate

	Sandlands LCT (07), Open Coastal Fens (08) LCT and Coastal Levels LCT (06) within AONB.

- Although forming further development and increasing the presence of apparent human activity, the construction and operation of the East Anglia TWO and East Anglia ONE North offshore infrastructure will result in no audible changes to the existing sounds of tranquil areas of the AONB and have negligible changes to the sense of relative tranquillity experienced in the AONB and its coastline.
- Appearance of the East Anglia TWO and East Anglia ONE North windfarm site relates rationally to the sounds of the wind and exposure along the AONB coastline.
- Although the introduction of the wind turbines of the East Anglia TWO and East Anglia ONE North windfarm site will introduce further visual movement, their relatively low speed and long distance offshore would ensure that they have negligible changes to the perceived calmness in the landscape (during good weather).
- Night time lighting of the wind turbines will introduce further lighting in the relatively dark night skies, however will be viewed at long distance offshore, in the context of existing wind turbine lighting (Galloper and Greater Gabbard) and other lighting of cardinal buoys and vessels in the waters off the AONB coastline.
- The construction and operation of the East Anglia TWO and East Anglia ONE North offshore infrastructure will result in negligible changes to areas of the AONB which have low levels of tranquillity in the baseline, such as the busy coastal towns with large numbers of seasonal tourist visitors and urban development/road traffic being prevalent.

Natural Heritage Features:	Negligible change to natural heritage features of Coastal Dunes and Shingle Beaches LCT (05), Estate Sandlands LCT (07), Open Coastal Fens (08) LCT and Coastal Levels LCT (06) within AONB.

The construction and operation of the East Anglia TWO and East Anglia ONE North offshore infrastructure will result in no direct changes to the characteristic expressions of geology which mark the boundary of the AONB or the striking expressions of geology and sedimentation that defines the crumbling coastal cliffs.

The construction and operation of the East Anglia TWO and East Anglia ONE North offshore infrastructure may only result in some perceived changes to the skyline of offshore waters that form the backdrop to the low crumbling cliffs and banks of shingle beaches, but the appearance of a distant offshore wind farm influence would not change the fundamental characteristic of the dynamic coastline and geomorphological features of Orford Ness.

Significance of effect (EA2 + EA1N):		
Special qualities of AONB:	Significance of effect (construction and decommissioning)	Significance of effect (operation)
Landscape quality:	**Significant**, mediumterm, temporary effects on landscape quality of Coastal Dunes and Shingle Beaches LCT (05) near Kessingland Beach (Area B); between Southwold and Orford Ness (Areas C and D); and the coastal edges of the Estate Sandlands LCT (07) between Covehithe to Benacre and Easton Bavents area (Area A).	**Significant**, long-term, reversible effects on landscape quality of Coastal Dunes and Shingle Beaches LCT (05) near Kessingland Beach (Area B); between Southwold and Orford Ness (Areas C and D); and the coastal edges of the Estate Sandlands LCT (07) between Covehithe to Benacre and Easton Bavents area (Area A).

	Not significant, medium-term, temporary effects on landscape quality of Open Coastal Fens (08) LCT, Coastal Levels LCT (06) and inland areas of Estate Sandlands LCT (07) within AONB.	**Not significant**, long-term, reversible effects on landscape quality of Open Coastal Fens (08) LCT, Coastal Levels LCT (06) and inland areas of Estate Sandlands LCT (07) within AONB.
Scenic quality:	**Significant**, medium-term, temporary effects on scenic quality of Coastal Dunes and Shingle Beaches LCT (05) near Kessingland Beach (Area B); between Southwold and Orford Ness (Areas C and D); and the coastal edges of the Estate Sandlands LCT (07) between Covehithe to Benacre and Easton Bavents area (Area A). **Not significant**, medium-term, temporary effects on scenic quality of Open Coastal Fens (08) LCT, Coastal Levels LCT (06) and inland areas of Estate Sandlands LCT (07) within AONB.	**Significant**, long-term, reversible effects on scenic quality of Coastal Dunes and Shingle Beaches LCT (05) near Kessingland Beach (Area B); between Southwold and Orford Ness (Areas C and D); and the coastal edges of the Estate Sandlands LCT (07) between Covehithe to Benacre and Easton Bavents area (Area A). **Not significant**, long-term, reversible effects on scenic quality of Open Coastal Fens (08) LCT, Coastal Levels LCT (06) and inland areas of Estate Sandlands LCT (07) within AONB.
Relative wildness:	**Not significant**, medium-term, temporary effects on relative wildness of Coastal Dunes and Shingle Beaches LCT (05), Coastal Levels LCT (06) Estate Sandlands LCT (07) and Open Coastal Fens (08) LCT within AONB.	**Not significant**, long-term, reversible effects on relative wildness of Coastal Dunes and Shingle Beaches LCT (05), Coastal Levels LCT (06) Estate Sandlands LCT (07) and Open Coastal Fens (08) LCT within AONB.
Relative tranquillity:	**Not significant**, medium-term, temporary effects on relative tranquillity of Coastal Dunes and Shingle Beaches LCT (05), Coastal Levels LCT (06) Estate Sandlands LCT (07) and Open Coastal Fens (08) LCT within AONB.	**Not significant**, long-term, reversible effects on relative tranquillity of Coastal Dunes and Shingle Beaches LCT (05), Coastal Levels LCT (06) Estate Sandlands LCT (07) and Open Coastal Fens (08) LCT within AONB.
Natural Heritage Features:	**Not significant**, medium-term, temporary effects on natural heritage features of Coastal Dunes and Shingle Beaches LCT (05), Coastal Levels LCT (06) Estate Sandlands LCT (07) and Open Coastal Fens (08) LCT within AONB.	**Not significant**, long-term, reversible effects on natural heritage features of Coastal Dunes and Shingle Beaches LCT (05), Coastal Levels LCT (06) Estate Sandlands LCT (07) and Open Coastal Fens (08) LCT within AONB.

28.4 Cumulative Visual Effects

28.4.1 Viewpoint Assessment

Viewpoint 1: Lowestoft

Viewpoint 1: Lowestoft – Visual Assessment		
Value:	Medium	
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	Medium
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
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.26b – 28.26c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 32.2km to closest turbine and is located to the south-east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 38.8km to closest turbine and is located to the east of the viewpoint. The viewpoint 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 28.49***).		
Size/scale of cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 44.5° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying approximately ¼ of the skyline of the 180° sea view, however the open sea skyline will be retained to the north and south of the combined East Anglia TWO and ONE North windfarm site in the view. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to form clearly separate developments, with an area of open sea skyline creating separation/space between them. • The East Anglia TWO and East Anglia ONE North windfarm sites have a consistent visual image, with a similar vertical scale/turbine height, layout and relationship to the skyline, albeit the East Anglia TWO windfarm site has a slightly wider lateral spread on the skyline.		

• The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint.		
Significance of cumulative effect (EA2 + EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Beach users (Lowestoft Beach):	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Walkers and cyclists (Suffolk Coastal Path):	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Residents of Lowestoft seafront:	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
People engaged in recreational amusements:	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
People sitting/viewing from seafront benches:	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Recreational boaters (Lowestoft Marina)	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm sites to be visible at distances over 32.1km. 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).		
Assessment of night-time visual effects (Viewpoint 1 Lowestoft)		
Baseline description:		
• 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):	Medium-low	

• The predicted night time view from Viewpoint 1 in Lowestoft is shown in the separate night-time photomontage representations of the East Anglia ONE North and East Anglia TWO windfarm sites (***Figure 28.26f)***. The red, medium intensity lights on the nacelle of the perimeter WTGs of the proposed East Anglia ONE North and 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 proposed East Anglia ONE North and 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 28.26f*** 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 be not be visible in the view, as they will be hidden behind the skyline at 32.1km (to the proposed East Anglia TWO windfarm site) 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 proposed East Anglia ONE North and East Anglia TWO windfarm site and are not expected to be visible at distances over 32.1km (to the closest East Anglia TWO wind turbine). 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 offshore construction operation and maintenance platform and accommodation 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 Lowestoft settlement	
Representative viewpoints:	Viewpoint 1 Lowestoft (Seafront) (***Figure 28.26***)
Illustrative viewpoints:	Viewpoint B Ness Point (***Figure 28.49***)
Sensitivity to change:	
Residents of Lowestoft:	High
Cumulative magnitude of change (EA2 + EA1N):	
Geographic area of Lowestoft:	Cumulative magnitude of change (EA2 + EA1N) (construction, operation and decommissioning):
Area A: Gunton area to the north of Lowestoft	Generally Low. Views of the East Anglia TWO and East Anglia ONE North windfarm sites are generally restricted to Gunton Cliff, in oblique views to the south-east across Lowesoft 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) generally screened by intervening buildings.

Area B: South Beach/Kirkley area	Generally Medium. Views of the East Anglia TWO and East Anglia ONE North windfarm sites are generally limited to residences along Marine Parade and Kirkley Cliff Road that are aligned along the seafront in linear street plan laid out parallel to the shore, facing out to sea.	
Area C: Pakefield/Pakefield Cliffs area (e.g. Pakefield Road, Pakefield Street)	Generally Medium. Views of the East Anglia TWO and East Anglia ONE North windfarm sites are generally 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 (1-8 turbines) and views generally 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	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 cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2 + EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2 + EA1N) (operation)
Residents of Lowestoft (Areas A, D and E):	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Residents of Lowestoft (Areas B and C) South Beach and Pakefield Cliffs:	**Significant**, medium-term, temporary	**Significant**, long-term, reversible

Viewpoint 2: Kessingland Beach

Viewpoint 2: Kessingland Beach – Visual Assessment		
Value:	Medium	
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	Medium
Walkers (Suffolk Coastal Path/promenade):	Medium-high	Medium-high
Residents of Kessingland seafront:	High	Medium-high
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.27b – 28.27c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 30.5km to closest turbine and is located to the south-east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 39.7km to closest turbine and is located to the east of the viewpoint. The view is representative of views of the East Anglia TWO windfarm site from Kessingland Beach, the Suffolk Coastal Path passing Kessingland and the seafront areas of Kessingland.		
Size/scale of cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium-high	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 49.6° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying approximately ¼ of the skyline of the 180° sea view, however the open sea skyline will be retained to the north and south of the combined East Anglia TWO and ONE North windfarm site in the view. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to form clearly separate developments, with an area of open sea skyline creating separation/space between them. • The East Anglia TWO and East Anglia ONE North windfarm sites have a consistent visual image, with a similar vertical scale/turbine height, layout and relationship to the skyline, albeit with the East Anglia TWO windfarm site has a wider lateral spread on the skyline. • The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint.		
Significance of cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning):	Significance of cumulative effect (EA2+ EA1N) (operation):
Beach users (Kessingland Beach):	**Significant**, medium-term, temporary	**Significant**, long-term, reversible

Walkers (Suffolk Coastal Path/promenade):	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Residents of Kessingland seafront:	**Significant**, medium-term, temporary	**Significant**, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 30.5km. 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).

Assessment of night-time visual effects (Viewpoint 2 Kessingland Beach)

Baseline description:

- 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):	Medium-low

- The predicted night time view from Viewpoint 2 in Kessingland is shown in the separate night-time photomontage representations of the proposed East Anglia ONE North windfarm site and East Anglia TWO windfarm site in ***Figure 28.27f***. The red, medium intensity lights on the nacelle of the perimeter WTGs of the proposed East Anglia ONE North windfarm site and 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 proposed East Anglia ONE North windfarm site and the proposed 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 28.26f*** 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 be not be visible in the view, as they will be hidden behind the skyline at distances over 30.5km 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 operation in and around the proposed East Anglia ONE North windfarm site and the proposed East Anglia TWO windfarm site and are not expected to be visible at 30.5km (to the closest East Anglia TWO wind turbine). 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 offshore construction operation and maintenance platform and accommodation 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 Kessingland settlement		
Representative viewpoints:	Viewpoint 2 Kessingland	
Sensitivity to change:		
Residents of Kessingland:	High	
Cumulative magnitude of change (EA2 + EA1N):		
Geographic area of Kessingland:	Cumulative magnitude of change (EA2 + EA1N) (construction, operation and decommissioning):	
Area A: Sea front extending from Kessingland Beach to Alandale Park and Coastguard Lane	Generally Medium-high. See above Cumulative magnitude of change (EA2 + EA1N) 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 and East Anglia ONE North windfarm sites are generally screened by intervening buildings and vegetation within the built-up urban areas of Kessingland.	
Significance of cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning):	Significance of cumulative effect (EA2+ EA1N) (operation):
Residents of Kessingland Beach (extending to Alandale Park and Coastguard Lane):	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Residents of Kessingland:	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible

Viewpoint 3: Covehithe

Viewpoint 3: Covehithe – Visual Assessment		
Value:	High	
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 (who have walked along the footpath from Covehithe to the beach):	High	High
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.28b – 28.28c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 30.6km to closest turbine and is located to the east/south-east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 41.6km to closest turbine and is located to the 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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium-high	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 53.7° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying nearly 1/3rd of the skyline of the 180° sea view, however the open sea skyline will be retained to the north and south of the combined East Anglia TWO and ONE North windfarm site in the view. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merging on the sea skyline, with only a small area of undeveloped space on the skyline between them. • The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and has a wider lateral spread on the skyline. • The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint.		
Significance of cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Beach users (who have walked along the footpath from Covehithe to the beach):	**Significant**, medium-term, temporary	**Significant**, long-term, reversible

Likelihood of effect:
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 30.6km. 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).

Viewpoint 4: Southwold

Viewpoint 4: Southwold – Visual Assessment		
Value:	High	
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):	Medium-high	Medium-high
Walkers and cyclists (Suffolk Coastal Path):	Medium-high	Medium-high
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
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.29b – 28.29d***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 31.5km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 44.0km to closest turbine 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 28.30***); Southwold Common in illustrative Viewpoint A and Southwold Pier in illustrative Viewpoint D (***Figure 28.48***).		
Size/scale of cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium-high	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 56.6° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying nearly 1/3rd of the skyline of the 180° sea view, however the open sea skyline will be retained to the north of the combined East Anglia TWO and ONE North windfarm site in the view. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merged on the sea skyline, forming one larger offshore windfarm extending into the distance offshore, with no undeveloped space on the skyline to define each as a separate windfarm.		

• The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and have a wider lateral spread on the skyline. • The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint.		
Significance of cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Beach users (Southwold Beach):	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Walkers and cyclists (Suffolk Coastal Path):	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Residents of Southwold seafront:	**Significant**, mediumt-term, temporary	**Significant**, long-term, reversible
People engaged in recreational amusements:	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
People sitting/viewing from seafront benches:	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Recreational boaters (Southwold Harbour):	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO and ONE North windfarm site to be visible at distances over 31.5km. 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).		
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):	Medium-low	

• The predicted night time view from Viewpoint 4 in Southwold is shown in the separate night-time photomontage representations of the proposed East Anglia ONE North windfarm site and the proposed East Anglia TWO windfarm site in ***Figure 28.29g***. The red, medium intensity lights on the nacelle of the perimeter WTGs of the proposed East Anglia ONE North windfarm site and the proposed 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 proposed East Anglia ONE North windfarm site and the proposed 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 28.29g*** 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 be not be visible in the view, as they will be hidden behind the skyline at 31.5km (to the proposed East Anglia TWO windfarm site) 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 proposed East Anglia TWO windfarm site and are not expected to be visible at 31.5km. 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 offshore construction operation and maintenance platform and accommodation 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
Cumulative magnitude of change (EA2 + EA1N):	
Geographic area of Southwold:	Cumulative magnitude of change (EA2 + EA1N) (construction, operation and decommissioning):
Area A: Immediate coastal edge of Southwold between Pier Avenue/Southwold Pier (Illustrative Viewpoint D) along	Generally Medium-high. See above Cumulative magnitude of change (EA2 + EA1N) assessment for Viewpoint 4 and following Viewpoint 5.

North Parade (Viewpoint 4) to Gun Hill (Viewpoint 5).		
Area B: Southwold Common (Illustrative Viewpoint A)	Generally Negligible. Views of the East Anglia TWO and East Anglia ONE North windfarm sites are generally 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 and East Anglia ONE North windfarm sites are generally 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 and East Anglia ONE North windfarm sites are generally 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 and East Anglia ONE North windfarm sites are generally 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 and East Anglia ONE North windfarm sites are generally screened from Ferry Road by intervening landform of shingle/dunes.	
Significance of cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
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**, medium-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**, medium-term, temporary	**Not significant**, long-term, reversible

Viewpoint 5: Gun Hill, Southwold

Viewpoint 5: Gun Hill – Visual Assessment		
Value:	High	
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):	Medium-high	Medium-high
Walkers (Suffolk Coastal Path):	Medium-high	Medium-high
Residents around Gun Hill/promenade:	High	High
People sitting/viewing from seafront benches:	High	High
Recreational boaters (Southwold Harbour):	Medium-low	Medium
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.30b – 28.30c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 31.8km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 44.4km to closest turbine 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 28.29***); Southwold Common in illustrative Viewpoint A (***Figure 28.48***) and Southwold Pier in illustrative Viewpoint D (***Figure 28.51***).		
Size/scale of cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium-high	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 56.8° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying nearly 1/3rd of the skyline of the 180° sea view, however the open sea skyline will be retained to the north of the combined East Anglia TWO and ONE North windfarm site in the view. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merged on the sea skyline, forming one larger offshore windfarm extending into the distance offshore, with no undeveloped space on the skyline to define each as a separate windfarm. • The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and have a wider lateral spread on the skyline. • The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint.		
Significance of cumulative effect (EA2+ EA1N):		

Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Beach users (Gunhill Cliff/The Denes):	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Walkers (Suffolk Coastal Path):	**Significant**, mediumterm, temporary	**Significant**, long-term, reversible
Residents around Gun Hill/promenade:	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
People sitting/viewing from seafront benches:	**Significant**, mediumterm, temporary	**Significant**, long-term, reversible
Recreational boaters (Southwold Harbour):	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO and ONE North windfarm site to be visible at distances over 31.7km. 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).		

Viewpoint 6: Walberswick

Viewpoint 6: Walberswick – Visual Assessment		
Value:	Medium-high	
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)	Medium-high	Medium-high
Walkers using the Suffolk Coastal Path	Medium-high	Medium-high
Residents of the coastal edges of Walbersick	High	High
Recreational boaters (Southwold Harbour)	Medium-low	Medium
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.31b – 28.31c***):		
Geographic extent:	Long distance	

The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 32.7km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 45.6km to closest turbine 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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 55.9° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying nearly 1/3rd of the skyline of the 180° sea view, however the open sea skyline will be retained to the north of the combined East Anglia TWO and ONE North windfarm site in the view. • Dunes in the foreground of the view, provide some intervening screening of the East Anglia ONE North windfarm site. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merged on the sea skyline, forming one larger offshore windfarm extending into the distance offshore, with no undeveloped space on the skyline to define each as a separate windfarm. • The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and have a wider lateral spread on the skyline. • The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint.		
Significance of cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Beach users (Walberswick Beach)	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Walkers using the Suffolk Coastal Path	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Residents of the coastal edges of Walbersick	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Recreational boaters (Southwold Harbour)	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 32.7km. 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).		
Assessment of effects on residents of wider Walberswick settlement		
Representative viewpoints:	Viewpoint 6	
Sensitivity to change:		
Residents of Walberswick:	High	
Cumulative magnitude of change (EA2 + EA1N):		
Geographic area of Walberswick:	Size/scale of cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	
Area A: Ferry Road area on eastern edge of village	Medium. See above Cumulative magnitude of change (EA2 + EA1N) 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 and East Anglia ONE North windfarm sites 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 cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Residents of Ferry Road area on eastern edge of village:	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Residents of all other areas of Walberswick	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible

Viewpoint 7: Dunwich

Viewpoint 7: Dunwich – Visual Assessment		
Value:	Medium-high	
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:	Medium-high	Medium-high
Visitors to the nearby National Trust café:	Low	Medium-low
Dingle Marshes RSPB reserve (NNR):	Medium	Medium

Residents of the edges of Dunwich village:	High	High
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.32b – 28.32c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 35.1km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 48.8km to closest turbine and is located to the north-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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 55.3° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying nearly 1/3rd of the skyline of the 180° sea view, however the open sea skyline will be retained to the north of the combined East Anglia TWO and ONE North windfarm site in the view. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merged on the sea skyline, forming one larger offshore windfarm extending into the distance offshore, with no undeveloped space on the skyline to define each as a separate windfarm. • The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and have a wider lateral spread on the skyline. • The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint. • The East Anglia ONE North offshore infrastructure results in a low change/addition, with the combined magnitude of change only being slightly higher than that resulting from the East Anglia TWO offshore infrastructure alone.		
Significance of cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Beach users at Dunwich Beach:	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Visitors to the nearby National Trust café:	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible
Dingle Marshes RSPB reserve (NNR):	**Not significant**, medium-term, temporary	**Not significant**, long-term, reversible

Residents of the edges of Dunwich village:	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 35km. 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).		

Viewpoint 8: Dunwich Heath and Beach (Coastguard Cottages)

Viewpoint 8: Dunwich Heath and Beach – Visual Assessment		
Value:	High	
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	Medium-high	Medium-high
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.33b – 28.33d***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 35.7km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 50.2km to closest turbine and is located to the north-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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 55.7° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying nearly 1/3rd of the skyline of the 180° sea view, however the open sea skyline will be retained to the north of the combined East Anglia TWO and ONE North windfarm site in the view. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merged on the sea skyline, forming one larger offshore windfarm extending into the distance offshore, with no undeveloped space on the skyline to define each as a separate windfarm. • The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and have a wider lateral spread on the skyline.		

• The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint. • The East Anglia ONE North offshore infrastructure results in a low change/addition, with the combined magnitude of change only being slightly higher than that resulting from the East Anglia TWO offshore infrastructure alone.		
Significance of cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Visitors to Dunwich Heath and Beach (Coastguard Cottages)	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Walkers using the Suffolk Coastal Path	**Significant**, medium term, temporary	**Significant**, long-term, reversible
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 35.7km. 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).		

Viewpoint 9: Minsmere Nature Reserve

Viewpoint 9: Minsmere Nature Reserve – Visual Assessment		
Value:	Medium	
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
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.34b – 28.34c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 36.3km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 50.9km to closest turbine and is located to the north-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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium

- The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 54.9° of the field of view.
- This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying nearly 1/3rd of the skyline of the 180° sea view, however the open sea skyline will be retained to the north of the combined East Anglia TWO and ONE North windfarm site in the view.
- The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merged on the sea skyline, forming one larger offshore windfarm extending into the distance offshore, with no undeveloped space on the skyline to define each as a separate windfarm.
- The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and have a wider lateral spread on the skyline.
- The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint.
- The East Anglia ONE North offshore infrastructure results in a low change/addition, with the combined magnitude of change only being slightly higher than that resulting from the East Anglia TWO offshore infrastructure alone.

Significance of cumulative effect (EA2+ EA1N):

Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Visitors at the visitor centre/car parking area:	**Significant**, medium-term, temporary	**Significant**, long-term, reversible
Birdwatchers using hides/viewing platforms:	**Not significant**, medium term, temporary	**Not significant**, long-term, reversible
Walkers using the coast trail around the Scrape:	**Significant**, medium term, temporary	**Significant**, long-term, reversible
Walkers using the Island Mere and Woodland Trail:	**Not significant**, medium term, temporary	**Not significant**, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 35.7km. 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).

Viewpoint 10: Sizewell Beach

Viewpoint 10: Sizewell Beach – Visual Assessment		
Value:	Medium-low	
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-low	Medium-low
Walkers using the Suffolk Coastal Path	Medium-low	Medium-low
Residents of Sizewell	Medium	Medium
Workers at Sizewell Nuclear Power Station	Low	Low
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.35b – 28.35d***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 35.7km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 52.3km to closest turbine and is located to the north-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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 55.8° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying nearly 1/3rd of the skyline of the 180° sea view, however the open sea skyline will be retained to the north of the combined East Anglia TWO and ONE North windfarm site in the view. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merged on the sea skyline, forming one larger offshore windfarm extending into the distance offshore, with no undeveloped space on the skyline to define each as a separate windfarm. • The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and have a wider lateral spread on the skyline. • The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint. • The East Anglia ONE North windfarm site results in a low change/addition, with the combined magnitude of change only being slightly higher than that resulting from the East Anglia TWO offshore infrastructure alone. • The East Anglia TWO and ONE North 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 cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Beach users at Sizewell Beach	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Walkers using the Suffolk Coastal Path	**Not significant**, medium term, temporary	**Not significant**, long-term, reversible
Residents of Sizewell	**Not significant**, medium term, temporary	**Not significant**, long-term, reversible
Workers at Sizewell Nuclear Power Station	**Not significant** medium -term, temporary	**Not significant**, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 35.6km. 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).		

Viewpoint 11: Coastal Path between Thorpeness and Sizewell

Viewpoint 11: Coastal Path between Thorpeness and Sizewell – Visual Assessment		
Value:	Medium-high	
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	Medium-high	Medium-high
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.36b – 28.36d***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 35.5km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 53km to closest turbine and is located to the north-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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium

- The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 56° of the field of view.
- This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying nearly 1/3rd of the skyline of the 180° sea view, however the open sea skyline will be retained to the north of the combined East Anglia TWO and ONE North windfarm site in the view.
- The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merged on the sea skyline, forming one larger offshore windfarm extending into the distance offshore, with no undeveloped space on the skyline to define each as a separate windfarm.
- The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and have a wider lateral spread on the skyline.
- The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint.
- The East Anglia ONE North offshore infrastructure results in a low change/addition, with the combined magnitude of change only being slightly higher than that resulting from the East Anglia TWO offshore infrastructure alone.
- The East Anglia TWO and ONE North 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 cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Walkers using the Suffolk Coastal Path	**Significant**, medium -term, temporary	**Significant**, long-term, reversible

Likelihood of effect
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 35.5km. 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).

Viewpoint 12: Thorpeness

Viewpoint 12: Thorpeness – Visual Assessment		
Value:	Medium-high	
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:	Medium-high	Medium-high
Residents of Thorpeness:	High	High
Tourist visitors to Thorpeness/holiday accommodation:	High	High
Walkers using the Suffolk Coastal Path:	Medium-high	Medium-high
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.37b – 28.37c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 35.9km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 53.9km to closest turbine and is located to the north-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.		
Size/scale of cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 55.4° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying nearly 1/3rd of the skyline of the 180° sea view, however the open sea skyline will be retained to the north of the combined East Anglia TWO and ONE North windfarm site in the view. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merged on the sea skyline, forming one larger offshore windfarm extending into the distance offshore, with no undeveloped space on the skyline to define each as a separate windfarm. • The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and have a wider lateral spread on the skyline. • The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint. • The East Anglia ONE North windfarm site results in a negligible change/addition, with the combined magnitude of change being similar to that resulting from the East Anglia TWO offshore infrastructure alone. • The East Anglia TWO and ONE North 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 cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Beach users at Thorpeness beach:	**Significant**, medium - term, temporary	**Significant**, long-term, reversible
Residents of Thorpeness:	**Significant**, medium term, temporary	**Significant**, long-term, reversible
Tourist visitors to Thorpeness/holiday accommodation:	**Significant**, medium term, temporary	**Significant**, long-term, reversible
Walkers using the Suffolk Coastal Path:	**Significant**, medium t-term, temporary	**Significant**, long-term, reversible
Likelihood of effect		
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 35.8km. 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).		
Assessment of effects on residents of wider Thorpeness settlement		
Representative viewpoints:	Viewpoint 12	
Sensitivity to change:		
Residents of Thorpeness:	High	
Cumulative magnitude of change (EA2 + EA1N):		
Geographic area of Thorpeness:	Size/scale of cumulative change (EA2 + EA1N) (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 Cumulative magnitude of change (EA2 + EA1N) 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 cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Residents of seafront residential areas between North End Avenue, Admiral's Walk/The Headlands/ Benthills; to Thorpe Road.	**Significant**, medium -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**, medium -term, temporary	**Not significant**, long-term, reversible

13: Aldeburgh

Viewpoint 13: Aldeburgh – Visual Assessment		
Value:	High	
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):	Medium-high	Medium-high
Residents of Aldeburgh seafront:	High	High
Tourist visitors to the seafront:	High	High
Walkers/strollers using Crag Path alongside the beach:	Medium-high	Medium-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
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.38b – 28.38c***):		
Geographic extent:	Long distance	

The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 36.4km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 55.8km to closest turbine and is located to the north-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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 53.8° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying nearly 1/3rd of the skyline of the 180° sea view, however the open sea skyline will be retained to the north of the combined East Anglia TWO and ONE North windfarm site in the view. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merged on the sea skyline, forming one larger offshore windfarm extending into the distance offshore, with no undeveloped space on the skyline to define each as a separate windfarm. • The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and have a wider lateral spread on the skyline. • The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint. • The East Anglia ONE North windfarm site results in a negligible change/addition, with the combined magnitude of change being similar to that resulting from the East Anglia TWO offshore infrastructure alone. • The East Anglia TWO and ONE North 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 cumulative effect (EA2+ EA1N):	

Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Beach users (Aldeburgh Beach):	**Significant**, medium term, temporary	**Significant**, long-term, reversible
Residents of Aldeburgh seafront:	**Significant**, medium - term, temporary	**Significant**, long-term, reversible
Tourist visitors to the seafront:	**Significant**, medium - term, temporary	**Significant**, long-term, reversible
Walkers/strollers using Crag Path alongside the beach:	**Significant**, medium - term, temporary	**Significant**, long-term, reversible
People sitting/viewing from seafront benches:	**Significant** medium - term, temporary	**Significant**, long-term, reversible

People working along the front e.g. RNLI shop, vendors:	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Recreational boating (e.g. from Aldeburgh Yacht Club):	**Not significant**, medium t-term, temporary	**Not significant**, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 36.4km. 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).

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):	Medium-low

- The predicted night time view from Viewpoint 13 in Aldeburgh is shown in the separate night-time photomontage representations of the proposed East Anglia ONE North windfarm site and the proposed East Anglia TWO windfarm site in ***Figure 28.38e***. The red, medium intensity lights on the nacelle of the perimeter WTGs of the proposed East Anglia ONE North windfarm site and 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 ONE North windfarm site and the proposed 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 28.38e*** 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 be not be visible in the view, as they will be hidden behind the skyline at 36.4km (from the closest proposed East Anglia TWO wind turbines) 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 proposed East Anglia ONE North windfarm site and

the proposed East Anglia TWO windfarm site and are not expected to be visible at 36.4km. 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 offshore construction operation and maintenance platform and accommodation 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 Aldeburgh settlement		
Representative viewpoints:	Viewpoint 13	
Sensitivity to change:		
Residents of Aldeburgh:	High	
Cumulative magnitude of change (EA2 + EA1N):		
Geographic area of Aldeburgh:	Size/scale of cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	
Area A: Aldeburgh seafront between Thorpe Road, Market Cross Place, Crabbe Street and Crag Path	Generally Medium. See above Cumulative magnitude of change (EA2 + EA1N) 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 Cumulative magnitude of change (EA2 + EA1N) assessment for Viewpoint 13.	
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 and East Anglia ONE North windfarm sites 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 cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2 + EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2 + EA1N) (operation)

Residents of Aldeburgh seafront between Thorpe Road, Market Cross Place, Crabbe Street and Crag Path.	**Significant** medium -tern, 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** medium -tern, 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**, medium -tern, temporary	**Not significant**, long-term, reversible

Viewpoint 14: Orford Castle

Viewpoint 14: Orford Castle – Visual Assessment		
Value:	Medium-high	
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	Medium-high	Medium-high
Residents of Orford	Low	Low
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.39b – 28.39c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 40.6km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 62.7km to closest turbine and is located to the north-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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium-low	
The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 51.3° of the field of view. This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying between 1/3rd and ¼ of the skyline of the 180° sea view, however the open sea skyline will be retained to the north of the combined East Anglia TWO and ONE North windfarm site in the view.		

The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merged on the sea skyline, forming one larger offshore windfarm extending into the distance offshore, with no undeveloped space on the skyline to define each as a separate windfarm. The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and have a wider lateral spread on the skyline. The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint. The East Anglia ONE North offshore infrastructure results in a low change/addition, with the combined magnitude of change only being slightly higher than that resulting from the East Anglia TWO offshore infrastructure alone. The East Anglia TWO and ONE North 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 cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Visitors to the roof of Orford Castle	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Residents of Orford	**Not significant**, medium term, temporary	**Not significant**, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 40.6km. 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).		

Viewpoint 15: Shingle Street

Viewpoint 15: Shingle Street – Visual Assessment		
Value:	Medium-high	
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
Walkers using the Suffolk Coastal Path:	Medium-high	Medium-high

Visitors/beach users:	Medium-high	Medium-high
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.40b – 28.40c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 46.0km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site is located approximately 70.4km to closest turbine to the north-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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Low	
• There is no visibility of the East Anglia ONE North windfarm site. • The East Anglia ONE North offshore infrastructure results in no change/addition, with the combined magnitude of change being the same as that resulting from the East Anglia TWO offshore infrastructure alone.		
Significance of cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning):	Significance of cumulative effect (EA2+ EA1N) (operation):
Residents of Shingle Street:	**Not significant**, medium term, temporary	**Not significant**, long-term, reversible
Walkers using the Suffolk Coastal Path:	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Visitors/beach users:	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 46.0km. 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).		

Viewpoint 16: Bawdsey

Viewpoint 16: Bawdsey – Visual Assessment		
Value:	Medium	
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
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.41b – 28.41c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 47.7km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site is located at a distance of approximately 72.8km to closest turbine and to the north-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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Low	
• There is no visibility of the East Anglia ONE North windfarm site. • The East Anglia ONE North offshore infrastructure results in no change/addition, with the combined magnitude of change being the same as that resulting from the East Anglia TWO offshore infrastructure alone.		
Significance of cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Visitors to Bawdsey Point:	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Walkers using the Suffolk Coastal Path:	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 47.7km. 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).		

Viewpoint 18: Orfordness (Lighthouse)

Viewpoint 18: Orfordness – Visual Assessment		
Value:	Medium-high	
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 Orfordness:	Medium-high	Medium-high
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.43b – 29.43c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 37.6km to closest turbine and is located to the east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 60.5km to closest turbine and is located to the noth-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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 49.9° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying between 1/3rd and ¼ of the skyline of the 180° sea view, however the open sea skyline will be retained to the north of the combined East Anglia TWO and ONE North windfarm site in the view. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to be visually merged on the sea skyline, forming one larger offshore windfarm extending into the distance offshore, with no undeveloped space on the skyline to define each as a separate windfarm. • The turbines of the East Anglia TWO windfarm site appear larger in scale and more prominent than the more distant turbines of the East Anglia ONE North windfarm site and have a wider lateral spread on the skyline. • The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters at long distance from the viewpoint. • The East Anglia ONE North offshore infrastructure results in a negligible change/addition, with the combined magnitude of change being similar to that resulting from the East Anglia TWO offshore infrastructure alone. • The East Anglia TWO and ONE North 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 cumulative effect (EA2+ EA1N):		

Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Visitors to Orford Ness:	**Significant** medium -term, temporary	**Significant**, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 37.6km. 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).		

Viewpoint 19: Hopton-on-sea

Viewpoint 19: Hopton-on-Sea – Visual Assessment		
Value:	Medium	
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	Medium
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	Medium
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.44b – 28.44c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 37.3km to the closest turbine and is located to the south-east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 40.9km to closest turbine 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 cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium-low	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 38.5° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying between ¼ and one-fifth of the skyline of the 180° sea view, however the open sea		

skyline will be largely retained to the north of the East Anglia TWO and ONE North windfarm site in the view.

- The East Anglia TWO and East Anglia ONE North windfarm sites appear to form clearly separate developments, with an area of open sea skyline creating separation/space between them.
- The East Anglia TWO and East Anglia ONE North windfarm sites have a consistent visual image, with a similar vertical scale/turbine height, lateral spread and relationship to the skyline and oblique position in the view to the south-east.
- The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters in an oblique position in the view to the south-east.
- The East Anglia TWO windfarm site is viewed in closer proximity to and with less separation from the coastline extending south.

Significance of cumulative effect (EA2+ EA1N):

Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Beach users (Hopton-on-Sea):	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Tourist visitors (e.g. Hopton Holiday Village):	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Residents of the coastal edges of Hopton-on-Sea (e.g. Sea View Rise):	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Walkers using the England Coastal Path:	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible

Likelihood of effect:

Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 37.3km. 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).

Viewpoint 20: Gorleston-on-Sea

Viewpoint 20: Gorleston-on-Sea – Visual Assessment		
Value:	Medium	
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	Medium
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 National Cycle Network Route (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
Cumulative magnitude of change (EA2 + EA1N) (predicted view is shown in ***Figure 28.45b – 28.45c***):		
Geographic extent:	Long distance	
The East Anglia TWO windfarm site will be visible at long-distance, at a distance of approximately 40.1km to the closest turbine and is located to the south-east of the viewpoint. The East Anglia ONE North windfarm site will be visible at long-distance, at a distance of approximately 42.6km to closest turbine 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.		
Size/scale of cumulative change (EA2 + EA1N) (construction, operation and decommissioning):	Medium-low	
• The combined lateral spread of the East Anglia TWO and East Anglia ONE North windfarm sites will occupy approximately 36.1° of the field of view. • This represents a notable horizontal extent of developed skyline in the view, with wind turbines occupying between ¼ and one-fifth of the skyline of the 180° sea view, however the open sea skyline will be partially retained to the north of the East Anglia TWO and ONE North windfarm site in the view. • The East Anglia TWO and East Anglia ONE North windfarm sites appear to form clearly separate developments, with an area of open sea skyline creating separation/space between them. • The East Anglia TWO and East Anglia ONE North windfarm sites have a consistent visual image, with a similar vertical scale/turbine height, lateral spread and relationship to the skyline and oblique position in the view to the south-east.		

• The East Anglia TWO and East Anglia ONE North windfarm sites are viewed in a similar seascape context, within the large scape, open expanse of offshore waters in an oblique position in the view to the south-east. • The East Anglia TWO windfarm site is viewed in closer proximity to and with less separation from the coastline extending south.		
Significance of cumulative effect (EA2+ EA1N):		
Receptor	Significance of cumulative effect (EA2+ EA1N) (construction and decommissioning)	Significance of cumulative effect (EA2+ EA1N) (operation)
Beach users (Gorleston-on-Sea beach):	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Tourist visitors to the seafront e.g. around Lower Esplanade/Marine Esplanade:	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
People sitting/viewing from seafront benches/gardens:	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Walkers using the England Coastal Path:	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Cyclists using NCNR 517:	**Not significant**, medium term, temporary	**Not significant**, long-term, reversible
Residents of Gorleston-on-Seafront (e.g. Marine Parade):	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
People engaged in active sports (e.g. Tennis/Basketball/Trim Trails):	**Not significant**, medium -term, temporary	**Not significant**, long-term, reversible
Likelihood of effect:		
Very good or excellent visibility required for the East Anglia TWO and East Anglia ONE North windfarm site to be visible at distances over 40.1km. 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).		

28.4.2 Settlements

3. Representative viewpoints have been agreed for all of the principal settlement receptors along the Suffolk and Norfolk coasts in the study area. The cumulative 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 of this Appendix as follows:

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

28.4.3 Transport Routes

4. 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 cumulative effects as a result of the East Anglia TWO and ONE North offshore development area.

28.4.4 Recreational Routes

28.4.4.1 Suffolk Coastal Path

Section of Suffolk Coastal Path (Figure 28.23a-b)	Sensitivity to change	Magnitude of change (East Anglia ONE North and East Anglia TWO) (construction, operation and decommissioning)	Significance of effect (East Anglia ONE North and East Anglia TWO) (construction and decommissioning)	Significance of effect (East Anglia ONE North and East Anglia TWO) (operation)
Suffolk Coastal Path				
Section 01 Lowestoft	Medium-high	Medium for a 3 km stretch along Lowestoft seafront	Significant, medium -term, temporary	Not significant, long-term, reversible
Section 02 Kessingland	Medium-high from the stretch south of Kessingland and low through Kessingland	Medium-high for 2.5km stretch along Kessingland Beach	Significant, medium -term, temporary for 2.5km stretch along Kessingland Beach	Significant, long-term, reversible for 2.5km stretch along Kessingland Beach

Section of Suffolk Coastal Path (Figure 28.23a-b)	Sensitivity to change	Magnitude of change (East Anglia ONE North and East Anglia TWO) (construction, operation and decommissioning)	Significance of effect (East Anglia ONE North and East Anglia TWO) (construction and decommissioning)	Significance of effect (East Anglia ONE North and East Anglia TWO) (operation)
Section 03 Kessingland to Reydon	Low	Low	Not significant, medium -term, temporary	Not significant, long-term, reversible
Section 04 Southwold	High from the 2.5 km stretch along the sea front of Southwold, between Eastern Marshes and Havenbeach Marshes. Medium in all other areas around Southwold.	Medium-high from 2.5 km stretch along the sea front of Southwold, between Eastern Marshes and Havenbeach Marshes. Medium-Low in all other areas around Southwold	Significant, medium term, temporary from the 2.5 km stretch along the sea front between Eastern Marshes and Havenbeach Marshes Not significant, medium -term, temporary over remainder of this section in the Southwold area including Southwold Harbour.	Significant, long-term, reversible from the 2.5 km stretch along the sea front between Eastern Marshes and Havenbeach Marshes Not significant, long-term, reversible over remainder of this section in the Southwold area including Southwold Harbour.
Section 05 Walberswick and Corporation Marshes	Medium-high	Medium-low	Not significant, medium -term, temporary	Not significant, long-term, reversible
Section 06 Dunwich Forest and Heath	Medium	Medium over a 1km stretch north of Coastguard Cottages Low over the remainder of this section.	Significant medium -term, temporary over a 1km stretch north of Coastguard Cottages. Not significant, medium -term, temporary over remainder of this section.	Significant, long-term, reversible over a 1km stretch north of Coastguard Cottages Not significant, long-term, reversible over remainder of this section.
Section 07 Minsmere and Sizewell	Medium-high over the stretch near Minsmere Medium-low over the	Low over the stretch through Minsmere Medium over the stretch near Sizewell	Not significant, medium -term, temporary	Not significant, long-term, reversible

Section of Suffolk Coastal Path (Figure 28.23a-b)	Sensitivity to change	Magnitude of change (East Anglia ONE North and East Anglia TWO) (construction, operation and decommissioning)	Significance of effect (East Anglia ONE North and East Anglia TWO) (construction and decommissioning)	Significance of effect (East Anglia ONE North and East Anglia TWO) (operation)
	stretch near Sizewell			
Section 08 Thorpeness	Medium-high	Medium over a 1.2km stretch south of Thorpeness Medium-low over the stretch across Southwold Common	Significant, medium -term, temporary over a 1.2km stretch south of Thorpeness. Not significant, medium -term, temporary over the stretch across Southwold Common.	Significant, long-term, reversible over a 1.2km stretch south of Thorpeness. Not significant, long-term, reversible over the stretch across Southwold Common.
Section 09 Aldeburgh to Boyton Marshes	Medium-low inland, and medium in coastal areas.	Low	Not significant, medium -term, temporary	Not significant, long-term, reversible
Section 10 Boyton Marshes and Orford Beach	Medium-high	Low	Not significant, medium -term, temporary	Not significant, long-term, reversible
Section 11 Shingle Street to Bawdsey	Medium	Low	Not significant, medium -term, temporary	Not significant, long-term, reversible