**CONTENTS**

# 21 LANDSCAPE AND VISUAL ASSESSMENT

## 21.1 Introduction

This section assesses the onshore elements of the Thanet Offshore Wind Farm (Thanet) project and the respective impacts upon the local landscape, its character and constituent features and the level of visual impact on the people who view it.

This section should be read in conjunction with **Section 13, Seascape and Visual Character.**

## 21.2 Assessment Methodology

### 21.2.1 Introduction

The methodology for the landscape assessment of the onshore elements follows relevant standards and guidance principally set out in the Countryside Agency's Landscape Character Assessment Guidance (2002) and other recognised guidelines, in particular the Institute of Environmental Assessment and the Landscape Institute's Guidelines for Landscape and Visual Impact Assessment, second edition (2002) and the Visual Assessment of Windfarms Best Practice (SNH, 2002). For detailed information on the methodology guidance, refer to **Appendix 13.1**.

### 21.2.2 Scope of work

In order to undertake the full impact assessment, a number of clear stages were identified and addressed in accordance with the prescribed methodology including:

- A desktop review of current statutory and non-statutory documents;
- A desktop review of existing landscape characterisation material;
- Identification of the range of visual receptor groups, within the study area;
- A description of the onshore elements and cable route;
- An assessment of the magnitude and significance of impacts upon the landscape, its character and the visual environment during the construction, operational and decommissioning stages of the development; and
- An assessment of any mitigation measures that may be incorporated within the project to help reduce identified potential seascape and visual impacts.

### 21.2.3 Existing published landscape assessment work

A variety of landscape character assessment work, relevant to the wider study area of the proposed offshore wind farm development has previously been carried out by different agencies. These include the Countryside Agency's Character of England Map (1999) and English Nature's equivalent Natural Areas Map (1999) and the Thanet District Landscape Character Assessment (2001).

See **Appendix 13.2**, which provides a more detailed summary of key aspects of the Character of England Map areas.

21.2.4 Source documents

In defining the existing baseline environment, the following documents have been reviewed. For further details see **Appendices 13.1** to **13.4**:

- Kent and Medway Structure Plan (Adopted, December 1996);
- Thanet District Local Plan (Revised Deposit, Draft March 2003); and
- Dover District Local Plan (Adopted, 2002).

Landscape assessment:

- The Countryside Agency's Character Map (Character Areas 113 /119);
- Thanet District Landscape Character Assessment (November 2001); and
- Natural Areas in the East of England Region (Maritime Areas 67 and 105), English Nature, 1999).
- Guidelines for Landscape and Visual Impact Assessment (Institute of Environmental Management and Assessment / Landscape Institute 2002.

21.2.5 The study area

Whilst the majority of the development is located offshore, the project also includes the associated onshore infrastructure comprising the landfall, an underground cable route and a small extension to the existing substation at Richborough Power Station. The cable route runs for approximately 1km through the northern intertidal end of Pegwell Bay before landfall at Cliffs End. It then continues for approximately 3.5km in a southern direction along the A256 Sandwich Road before feeding into a minor extension to the existing electricity substation at Richborough Power Station (see **Figure 2.13** in **Section 2, Project Details**).

It is accepted practice within landscape and visual assessment work that the extent of the study area is broadly defined by the extent of visibility of a development, which depends upon a variety of factors including the scale of development, the relationship between the viewpoint and the development itself and the context within which the development is seen.

As the extent of the onshore infrastructure is restricted to an underground cable route and a small extension to the existing electricity substation, the extent of visibility is essentially limited to the immediate locality and largely to the roadside properties adjacent to the cable route. The overall visibility of the Thanet project is defined within **Figures 13.3** and **13.4**, the theoretical Zone of Visual Influence (ZVI).

21.2.6 Policy Background

As part of establishing the existing baseline environment, the assessment reviewed and considered a range of relevant policies from the Kent Structure Plan, the Thanet District Council Local Plan and Dover District Council Local Plan, which cover the area for the onshore elements. See **Appendix 13.4** for Structure and Local Plan policies covered by the study area.

21.2.7 Landscape designations

The entire coastline through Sandwich Bay is recognised, both nationally and internationally, for its nature conservation and scientific value. The Local and Structure Plans also identify a number of areas and features of local or regional landscape significance in this area. It is defined as a length of coast that has remained substantially undeveloped and is recognised as such within the Kent Structure Plan.

The Thanet District Local Plan (Revised Deposit Draft - March 2003) also recognises that the coastline and sea considerably enhance the value of the District's landscape. This is recognised by its partial designation as part of the Pegwell Bay Special Landscape Area and the former Wantsum Channel Landscape Character Area. Furthermore, the open landscape and system of dykes to drain marshlands, which typifies the area between Stourmouth and Richborough, known locally as the Ash Levels, is unique within the district and is recognised as the Ash Levels Area of Local Landscape Significance (ALLS). This landscape extends into the neighbouring Districts of Canterbury and Dover, where Local Plan protection has also been given (Dover District Council). See **Figure 13.1** for further details.

The National and Development Plan policy framework recognises the importance of renewable energy, but also requires that due consideration is given to areas of Heritage Coast, Areas of Outstanding Natural Beauty (AONB) and other areas of recognised landscape value. The development of renewable energy sources generally is positively encouraged, but needs to be without significant adverse or detrimental impact upon the existing landscape resource and visual environment.

## 21.3 The Existing Landscape Environment

21.3.1 Introduction: The site and its setting

Kent's environment is a major national asset with a varied landscape, much of which is nationally protected with over half being classified as an Area of Outstanding Natural Beauty (i.e. Kent Downs and the High Weald AONBs). The coast also contains a rich variety of natural habitats, wildlife and historic and archaeological features and areas, which are protected both nationally and internationally, and contributes significantly to the overall value of the Kent landscape. See **Figure 21.1** for details of the landscape constraints.

The identified study area for the onshore elements embraces a small stretch of coastline to the north west of Pegwell Bay. This coastline is simple in its form but dynamic and varied in its habitat, being characterised by estuarine marshes and mudflats, coastal lowlands and sand dune systems. Along the A256 Sandwich Road corridor there is some significant development, which is interspersed with a generally undeveloped coastline with open recreational areas such as Pegwell Bay Country Park.

21.3.2 Landscape features

At the landfall of the export cable route to the east of Cliffs End, the landscape is open within the immediate foreshore and to the north. However, it becomes more enclosed along the road corridor. Features adjacent to the east side of the A256 Sandwich Road, along the onshore cable route, include a generally wide verge with an isolated avenue of

trees, a variety of trees and mature hedgerow / woodland scrub planting. The relationship of the verge with the road varies along the proposed length of the cable route.

Elsewhere, the area of two golf courses at St Augustine's and Stonelees and the Pegwell Bay National Nature Reserve and Country Park provide significant areas of habitat and recreation and a varied and scattered vegetated structure with isolated views extending to the road and beyond.

21.3.3 Landscape character context

The landscape character context is identified at different levels, with the Countryside Character Initiative (CCI) and English Nature's Natural Area Maps providing the broader framework to determine the character of the British countryside at a national level. The study area lies within area 113 North Kent Plain within the CCI character map. The key characteristics of these are detailed in **Appendix 13.2**.

21.3.4 Thanet District Landscape Character Assessment

Thanet District Council has undertaken its own Landscape Character Assessment, which provides a more detailed tier of Landscape Character Assessment that is relevant to the study area. This assessment has identified six landscape character areas at the local level to assist with the detailed landscape policy for the district, namely:

- The former Wantsum Channel;
- The former Wantsum North Shore;
- Pegwell Bay;
- The Central Chalk Plateau;
- Quex Park; and
- The Urban Coast.

For further information on the key characteristics of these areas refer to **Appendix 13.2**. The study area for onshore elements lies between the first three character areas.


International/National Designations

- Ancient woodland
- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)
- Site of Special Scientific Interest (SSSI)
- National Nature Reserve (NNR)
- RAMSAR
- Area of Outstanding Natural Beauty (AONB)
- Heritage Coast (HCST)
- Conservation Area

Local Designations

- Undeveloped coast
- Urban coast
- Ash Levels - Area of Local Landscape Significance
- Special Landscape Area (SLA)
- Extent of Study Area for onshore elements

FIGURE 21.1

| REV. | DESCRIPTION | APP. | DATE |
|---|---|---|---|

Oxford
T 01865 887050

LDADESIGN

THANET OFFSHORE WIND FARM

LANDSCAPE POLICY CONTEXT

| | | | |
|---|---|---|---|
| DRAWN | CA | DATE | OCTOBER 2005 |
| CHECKED | AJ | SCALE | NTS |
| APPROVED | WW | STATUS | FINAL |

DRAWING NO. 2099LO/009

21.3.5 Dover District Council

Dover District Council (DDC) assess the character within their Local Plan, as that identified by the CCI, which divides the district in two with the southern two thirds of the district lying within the North Downs (Area 119) and the northern third within the North Kent Plain (Area 113).

21.3.6 The Landscape Character of the study area

The character of the study area is typical of the identified Stour Estuary Regional Seascape Unit (see **Section 13**), which extends between the two settlements of Cliffs End and Kingsdown, embracing Pegwell Bay, Sandwich Bay, the Ash Levels and the urban areas of Sandwich and Deal.

The landscape to either side of the A256 Sandwich Road comprises a low lying, relatively undeveloped coastal hinterland, indented by the mouth of the Stour Estuary to the north. The coastline is characterised by a distinctively open and relatively unspoilt intertidal zone, dominated by soft sediments, which form extensive areas of open, mixed coastal habitats including saltmarsh, mudflats, coastal scrub and coastal dune grassland. The area possesses a sense of remoteness and wildness despite the relative proximity of development that lies adjacent to the road corridor and the major detracting influence of the cooling towers and chimney at the disused Richborough Power Station. The open character of this landscape provides wide and long views that contrast with that of the road corridor where views are generally contained by vegetation and development.

The study area is considered to be generally of *medium* quality, with isolated elements of *low* quality along the road corridor. The low lying, partially contained character contributes to a *low* level of sensitivity to change.

21.3.7 Summary

Although the study area lies within a low lying, relatively undeveloped open coastal hinterland, the character of the road corridor is more defined and enclosed by the isolated development within the area and the major detracting influence of the disused Richborough Power Station. Elsewhere, further enclosure is available with a varied roadside vegetation pattern. Although the wider coastal landscape is of *medium* quality, the immediate study area along the road is of a lower quality and of a *low* sensitivity to change.

## 21.4 The Existing Visual Environment

21.4.1 Introduction

The purpose of the Visual Assessment is to determine the Zone of Visual Influence [ZVI] of the development, i.e. the area within which it maybe possible to see any part of the construction or operational elements of the development, and to determine how visible the project would be from sensitive viewpoints or receptors within the ZVI.

21.4.2 Zone of visual influence

As the extent of onshore activity is effectively restricted to underground cabling works alongside the A256 Sandwich Road and a small extension to the existing substation at Richborough Power Station, the extent of visual exposure is largely confined to the immediate area of the road and the neighbouring roadside properties and vegetation.

The visual exposure at the northern end of the cable route, where the landfall of the cable occurs, would extend to include the roadside residential properties to the east side of Cliffs End and to the isolated farm dwellings and coastguard cottages to the north side of Pegwell Bay. To the south, the extent of visibility is restricted and defined by the roadside infrastructure associated with the industrial areas of the disused power station at Richborough and by the northern extremities of Richborough Port.

The area of visibility would include a minor localised, but temporary extension to the computer generated ZVI (**Figures 13.3** and **13.4**), which identifies key stretches of the coastline and hinterland from which the offshore wind farm development may theoretically be visible.

21.4.3 Key visual receptors

A variety of visual receptors can be expected to be affected by the onshore elements connected with the Thanet project. These receptors would vary depending on the intricacies of the roadside vegetation and industrial built form and would include not only local people, but also those travelling through the area, or those visiting the area for recreational and amenity purposes. The three main receptor groups include local residents, the travelling public and visitors to the area.

21.4.4 Residents

Local residents are judged to have a *high* level of sensitivity to changes in their landscape and visual environment. Residents along the eastern extremities of the settlement of Cliffs End along the A256 Sandwich Road, together with isolated dwellings to the north of Pegwell Bay, including Little Cliffsend Farm, the coastguard cottages and properties adjacent to the A299 within the western side of Ramsgate, would have views of the temporary works. For those buildings and visual receptors behind the road frontage, views towards the development would generally be obscured.

21.4.5 Travelling public

This category of visual receptor groups embraces both residents and those who come to travel to or through the area. The group includes travellers along the main A299 and the A256 Sandwich Road and those on adjacent minor roads. This group is considered to have a *low to medium* sensitivity to change on account of the transitory nature of views in any one direction.

21.4.6 Visitors and the tourism / amenity resource

This visual receptor category embraces a wide variety of individual visual receptor groups, whose principal preoccupation is with the enjoyment of the outdoor environment, the open countryside and the tourism / amenity resource. These visual

receptor groups would have different objectives, and thus levels of sensitivity to any change in the fabric or the character of the area and visual impact arising from the development although they are generally *high* sensitivity, as the open seascape is valued for its remoteness, tranquillity and connection with the natural environment.

These receptor groups include visitors to Pegwell Bay National Nature Reserve and Pegwell Bay Country Park, users of the two golf courses and walkers / cyclists on the Stour Valley Walk, as well as those using the roadside footways and the Thanet Coastal Path a National / Regional Cycleway.

## 21.5 Landscape Effects

21.5.1 Introduction

The magnitude and significance of any effects arising from the onshore elements associated with the Thanet project upon the existing landscape is related to the capacity of the landscape, its character and its constituent features, to accommodate change. This is assessed using the recognised LI/IEMA (2002) evaluation process, which looks at the physical form, the quality, the value and the range of visual receptor groups of the individual seascape units. The assessment methodology is referred to in **Appendix 13.2**.

21.5.2 Effects on landscape features

The generally wide verge that separates the A256 Sandwich Road from the variety of existing roadside vegetation to the east provides a good buffer to any access and construction activity. As the cables would be buried in the road, there would be no significant effects upon the existing vegetation. However, where the relationship of the verge with the road narrows and vegetation is closer to the carriageway, construction activity and methods would ensure that vegetation is protected. There may be a minor isolated impact where this cannot be achieved arising from the potential removal of isolated vegetation. This is considered to be a short term **minor adverse to negligible** impact however, where the removal would be part of a wider vegetated screen. Also any impact would be temporary and areas reinstated on completion of construction.

There would also be **no impact** on the scattered vegetated structure of adjacent areas within the recreational areas and the Pegwell Bay National Nature Reserve and Country Park.

21.5.3 Effects on landscape character

The magnitude of any effects would be relatively *low* as the extent of the onshore proposals are fairly isolated, located along an existing road corridor, underground and temporary. When combined with a *low* level of sensitivity to change along the road corridor the impact significance on the local landscape character is assessed to be **minor adverse to negligible**. Elsewhere, the small extension to the existing substation would not create any new impact on the existing industrial built characteristics of the power station site and impacts also would be **negligible**.

Where the cable route crosses the relatively unspoilt and extensive area of mixed coastal habitats of Pegwell Bay, which has a *medium to high* sensitivity to change, the

impacts, would be slightly higher but short term resulting in a **minor adverse** impact. They would however, be temporary and post construction there would be **no impact** on the character of Pegwell Bay.

21.5.4 Effects on designated landscapes

It is judged that there would be only a **negligible** impact upon the designated landscapes within the area (refer to **Figure 13.1**) due to the short term and temporary nature of the works.

21.5.5 Duration of landscape effects

As the extent of the onshore works is fairly limited in extent and duration and mostly underground, the impacts upon the landscape and its features and character would be restricted to the construction phase. The resultant impact following construction would be **negligible** with appropriate mitigation planting incorporated to accommodate any unavoidable loss of vegetation. **Table 21.1** provides a summary of the Landscape Effects.

**Table 21.1 Landscape effects**

| Landscape | Quality | Sensitivity to change | Magnitude of effect | Impact significance |
|---|---|---|---|---|
| Landscape Features | Medium to Low | Low | Low to Negligible | Minor to Negligible |
| Landscape Features | Medium to Low | Low | Low to Negligible | Minor to Negligible |
| Landscape Designation | High | Medium | Low to Negligible | Minor |

## 21.6 Visual Effects

21.6.1 Introduction

As the extent of onshore activity is restricted to underground cabling alongside the A256 Sandwich Road, and to a minor extension to the existing substation within the power station site (see **Section 2**), the extent of visual exposure is largely confined to the immediate area of the road, roadside properties and vegetation, and within the existing power station site. Any impacts arising would only be temporary and limited to the construction period, after which it is judged that there would be no significant permanent visual effects.

The following analysis refers to the identified receptor groups within the immediate locality of the onshore works.

21.6.2 Visual effects upon visual receptor groups

*Residents*

Residents are the most significant receptor group and are most frequently impacted on within the identified visual envelope.

The potential areas of greatest visual exposure are primarily located at the northern end of the onshore cable route around the landfall point. This location is visible from the A256 roadside residential properties to the east of Cliffs End and to more distant views from residents to the north side of Pegwell Bay, including Little Cliffs End Farm and Coastguard Cottages. These properties would have views to the onshore elements as well as views out to Pegwell Bay.

However, the degree of impact would largely be minor, as there is already an existing baseline of activity and movement along the road corridor. Impacts are also temporal within Pegwell Bay and along the road, as they are connected with the construction phase. Following construction, impacts would be **negligible**. Elsewhere, the impacts during the construction stage are judged to be **minor adverse to negligible**. See the summary provided in **Table 21.2**.

*Travelling public*

Given that this group is considered to have a *low* to *medium* level of sensitivity on account of the transitory nature of views in any given direction, the magnitude of impact would be *low* only where short, local views are available towards the works adjacent to the road. As a result, the impact significance would be **minor adverse** and **negligible** elsewhere. See **Table 21.2** for details.

*Visitors and the tourism / amenity resource*

Although this group embraces a wide variety of individual visual receptor groups with views across Pegwell Bay and along the road, the extent of the work combined with the enclosed nature of the road corridor would mean that the visibility from each of the identified receptor groups is limited to a **minor adverse to negligible** magnitude of impact. As a consequence, there would only be minor temporary impacts upon this group. For details of each, see the summary in **Table 26.2**.

21.6.3 Duration of visual effects - construction, operation and decommissioning

As the extent of the onshore works are both limited and underground, except for the small extension to the existing substation at Richborough and a manhole access at the joint transition pit, the impacts upon the visibility of the identified receptor groups would be restricted to the construction phase, after which the impact would be negligible, given appropriate mitigation planting to accommodate any unavoidable loss of existing vegetation. As the cable route connection is underground, there would also be no further addition or replacement of any overhead lines or features.

**No impacts** during decommissioning of the project are expected, as the cable would only be disconnected and left in situ, unless otherwise agreed with the Local Planning Authorities.

**Table 21.2** provides a summary of the visual effects on identified receptors.

**Table 21.2 Visual effects**

| Receptor | Quality of the view | Sensitivity to change | Magnitude of effect | Impact significance |
|---|---|---|---|---|
| Residents of roadside properties to the west side of A256 at Cliffs End | Medium to Low | High | Low to Negligible | Minor |
| Residents to north side of Pegwell Bay including Little Cliffsend Farm and Coastguard Cottages | Medium to High | High | Low to Negligible | Minor to Negligible |
| The travelling public – A256 Sandwich Road | Medium to Low | Low | Low | Minor |
| The travelling public minor adjacent roads | Medium | Low | Low to Negligible | Minor to Negligible |
| Visitors to Pegwell Bay Country Park | Medium to High | Medium | Low to Negligible | Minor |
| Stonelees and St Augustine's Golf Club | Medium | Medium | Low to Negligible | Minor |
| Walkers and Cyclists on the Thanet Coastal Path | Medium to High | Medium | Low to Negligible | Minor |

## 21.7 Mitigation

21.7.1 Mitigation of onshore elements

Careful consideration would be given to the cable landfall arrangements to ensure that there is only a minimal lasting visible effect upon the landscape resource, its character and constituent features.

The Thanet project incorporates a number of mitigation measures in order to reduce and/or remove the potential effects arising from the development. These include:

- The selected onshore cable route has taken account of areas of valued and high quality landscape, seeking to avoid these wherever possible. These include Pegwell Bay National Nature Reserve and Country Park, and the River Stour, both of which lie within the locally designated Special Landscape Area. The selected cable route will also seek to minimise intrusion into and disturbance to the nationally designated marine areas within Pegwell Bay.
- Where cable routing unavoidably disturbs areas of existing vegetation, these will be replaced with appropriate new planting of species of similar habit and type. Details of these will be agreed with the Local Authorities.

## 21.8 Summary

The assessment process has defined the full extent of the likely landscape and visual effects arising from the onshore elements connected with all phases of the Thanet project. Whilst effects upon the existing landscape, its character and features, and upon those who view it, would inevitably occur, it is considered that these would only have a collective significance of **minor** at worst and would be limited to an isolated area of Pegwell Bay and the A256 Sandwich Road corridor. Elsewhere impacts would be **negligible**.

The nature of the onshore development, being fairly isolated and largely underground would mean that the landscape and visual effects arising from these works are temporary in nature, with the exception of a small extension to the existing substation at Richborough Power Station and a manhole cover as access to the underground joint transition pit. The small extension to the existing substation would not create any new impact on the existing industrial built characteristics of the power station site and impacts would be **negligible**. All vegetated or open areas that have been disturbed will be reinstated to ensure no net residual effect upon either the landscape resource or the visual environment.