

# VikingLink

nationalgrid

---

## UK Onshore Scheme

Environmental Statement

Volume 4 Document ES-4-C.06

Appendix 22

Landscape & Visual Amenity Technical  
Appendices (Proposed Converter Station)

VKL-08-39-G500-009

August 2017



# Contents

APPENDIX 22.1 .....	1
1.1 Introduction .....	1
1.2 Technical Appendix Structure .....	1
1.3 National Landscape Character.....	1
1.4 Regional Landscape Character.....	4
1.5 Local Landscape Character .....	5

## Appendix 22.1

### 1.1 Introduction

1.1.1 This technical appendix provides details of the baseline landscape character as described in various publications produced by Natural England and Local Planning Authorities. These national, regional and local level studies identify character units at different scales and levels of detail and have been used, in conjunction with observations in the field, to help inform the baseline description of the landscape character of the Zone of Influence (Zol).

### 1.2 Technical Appendix Structure

1.2.1 The remainder of this technical appendix is structured as follows:

- Section 1.3. National Landscape Character. Provides a description of the key characteristics of the landscape as identified at a national level.
- Section 1.4. Regional Landscape Character. Provides a description of the key characteristics of the landscape as identified at a regional scale for East Midlands.
- Section 1.5. Local Landscape Character. Provides a description of the key characteristics of the landscape as identified at a local level by various district councils.

### 1.3 National Landscape Character

#### Natural England National Character Areas

1.3.1 The landscape character of the Zone of Influence (Zol) is summarised at a broad scale by Natural England in the National Character Area (NCA) descriptions for NCA Profile 46: The Fens. The aim of NCA profiles was to assist those who make decisions regarding local plans to consider how best to enhance and respect local distinctiveness. The Key Characteristics of NCA 46: The Fens relevant to the Zol include:

- *“Expansive, flat, open, low-lying wetland landscape influenced by the Wash estuary, and offering extensive vistas to level horizons and huge skies throughout, provides a sense of rural remoteness and tranquillity;*
- *Overall, woodland cover is sparse, notably a few small woodland blocks, occasional avenues alongside roads, isolated field trees and shelterbelts of poplar, willow and occasionally leylandii hedges around farmsteads, and numerous orchards around Wisbech. Various alders, notably grey alder, are also used in shelterbelts and roadside avenues;*
- *The predominant land use is arable – wheat, root crops, bulbs, vegetables and market gardening made possible by actively draining reclaimed land areas. Associated horticultural glasshouses are a significant feature. Beef cattle graze narrow enclosures along the banks of rivers and dykes and on parts of the salt marsh and sea banks;*

- *Open fields, bounded by a network of drains and the distinctive hierarchy of rivers (some embanked), have a strong influence on the geometric/rectilinear landscape pattern. The structures create local enclosure and a slightly raised landform, which is mirrored in the road network that largely follows the edges of the system of large fields. The drains and ditches are also an important ecological network important for invertebrates, fish including spined loach, and macrophytes;*
  - *Large, built structures exhibit a strong vertical visual influence, such as the 83 m-high octagonal tower of ‘Boston Stump’ (St Botolph’s Church), Ely Cathedral on the highest part of the Isle of Ely dominating its surrounding fen, wind farms and other modern large-scale industrial and agricultural buildings, while drainage and flood storage structures and embanked rail and road routes interrupt the horizontal fen plain; and*
  - *Settlements and isolated farmsteads are mostly located on the modestly elevated ‘geological islands’ and the low, sinuous roddon banks (infilled ancient watercourses within fens). Elsewhere, villages tend to be dispersed ribbon settlements along the main arterial routes through the settled fens, and scattered farms remain as relics of earlier agricultural settlements. Domestic architecture mostly dates from after 1750 and comprises a mix of late Georgian-style brick houses and 20th century bungalows.”*
- 1.3.2 Each profile includes a description of the natural and cultural features that shape our landscapes, how the landscape has changed over time, the current key drivers for ongoing change, and a broad analysis of each area’s characteristics and ecosystem services.
- 1.3.3 The Statements of Environmental Opportunity (SEOs) section draws on this integrated information. The SEOs offer guidance on the critical issues, which could help to achieve sustainable growth and a more secure environmental future. Those of particular relevance to landscape and / or visual matters within the Study Area, include:
- *SEO4: “Conserve, manage and enhance the Fens landscape and increase educational opportunities to access its geodiversity, archaeology and cultural heritage to enhance enjoyment and understanding for those who live and work in and visit the Fens.”*
- 1.3.4 The Landscape Change section of the NCA profile considers recent changes to the landscape which may have modified its character. The suggested potential changes of relevance to the Zol include:
- *“Woodland cover is very sparse, in an open agricultural landscape. There is evidence of more recent tree planting close to settlements or along field boundaries. Coniferous shelterbelts are particularly common around isolated farm buildings;*
  - *There were no large areas of planting, although the extension of woodlands through new planting mainly takes the form of small isolated blocks throughout the inland open fen area. New planting can introduce inappropriate and visually intrusive elements in this flat and open landscape. Most of the increase is in association with existing wet woodland sites including Holme Fen and Wicken Fen.*
  - *There has been some loss of historic hedgerow patterns on clay islands found in the inland fen area due to housing development and limited management.*

- *Boundary features continue to be maintained through stewardship schemes but there are limited agreements in place under options for management. There are few agreements in place for ditches despite their extensive number and their importance.*
- *The loss of pasture is particularly evident around settlements. Pasture and older grassland survives principally on the fen islands (where settlements are long established) and in churchyards both on islands and elsewhere in the Fens;*
- *The general increase in farm size is reflected in the proliferation of new large-scale agricultural buildings. An increase in the number of polytunnels and glass houses reflects the popularity in bulb growing. These structures can reduce the sense of remoteness in rural areas and cause visual intrusion, enclosing previously open views. There has been a loss of medium-size farm enterprises which have largely been edged out;*
- *Modern built development is eroding the architectural and historic character of some Fenland villages. Development on settlement margins can be particularly damaging, creating visual intrusion and resulting in the loss of surrounding landscape features and increasing the risk of coalescence. The proliferation of smaller, unplanned residential development along arterial roads is also changing the landscape, reducing the sense of remoteness and enclosing views;*
- *Road improvements are commonplace, including straightening of existing routes and new 'bypass' schemes designed to alleviate congestion within towns and villages;*
- *There has been a significant increase in the number of larger industrial scale units, mainly related to the agricultural/horticultural industry with minimal screening to assimilate the structures into the open landscape; and*
- *Light pollution is an increasing issue but this may decrease with new, energy-efficient more directional lighting technology."*

1.3.5 Further to an identification of modern changes to the landscape character, the profile notes the potential future drivers of change to the characteristics of NCA 46 The Fens, of which the following are relevant to the Zol:

- *Cabling for electricity to get energy from off-shore windfarms onto the land and connected to the grid, needs to be buried. The proliferation of wind turbines on the horizon can bring an industrial landscape into an area that has a wild and remote feeling;*
- *Given the proliferation of windfarms in this area and the potential for impacts on the interest features of statutory sites and protected species, it is crucial (given the predominantly arable nature of the landscape) that semi-natural habitats and green corridors (rivers, ditches, hedgerows) linking them are maintained and enhanced as far as possible;*
- *Existing rural landscape features should be protected and positive management of those features lost or under threat should be encouraged. Restoration of hedgerows on the clay islands should be a priority;*
- *The Fens have a relatively poor provision of accessible and connected green infrastructure, but there are significant opportunities to improve this situation in new development proposals through proactive planning and design from the outset. It is especially important that this is fully considered through the planning process; and*

- *Work in partnership to create new lowland grassland habitats and compensate for habitat loss as a result of sea level rise.”*

1.3.6 While the accompanying description is broadly representative of the wider landscape, it is too generic to provide specific characterisation of the landscape context of the Scheme. The National Character Area profiles provide a broad framework for more detailed landscape character assessments and strategic policy direction described subsequently.

## 1.4 Regional Landscape Character

### East Midlands Landscape Character Assessment

1.4.1 The East Midlands Landscape Character Assessment (EMLCA) (2010) complements Natural England’s assessment by bridging the gap between national and local level landscape character assessments. The stated aim and application of the EMLCA is to provide landscape evidence that can be used for strategic region-wide landscape management.

1.4.2 The EMLCA defines 31 Regional Landscape Character Types (RLCTs) using broad descriptions of distinctive, rare or special characteristics. The landscape of the proposed converter station site and majority of the Zol lies within the RLCT 2b: Planned and Drained Fens and Carrlands. The relevant Key Characteristics of this RLCT are:

- *“Consistently low lying terrain and simple palette of land uses and landscape features gives visual unity and strong sense of identity;*
- *Large scale open landscape of flat farmlands with extensive and uninterrupted vistas to distant horizons beneath vast skies;*
- *18th and 19th century enclosure characterises historic landscape patterns underpinned by complex history of drainage and enclosure stretching as far back as the late Saxon period in some places;*
- *Significant areas at or below sea level, with modestly elevated areas acting as the focus of settlement;*
- *Hierarchy of canalised rivers, high level drains and ditches divide the landscape up into rigid geometric patterns, dictating the grain of the landscape and patterns of movement and settlement;*
- *Limited settlement pattern characterised by isolated farms and linear villages strung out along roads; majority of buildings in brick with tile roofs, further adding to uniform character of the landscape;*
- *Rich and varied arable land uses, root crops, bulbs, vegetables and horticultural glass houses give the landscape a highly productive character and seasonal variations in colour and texture; and*
- *Strong sense of remoteness in expansive and sparsely settled areas although periods of intense activity during harvest.”*

1.4.3 To the east, the study area lies within RLCT 2a: Settled Fens and Marshes, which covers a large swathe of the coastal landscape from the border with Norfolk to the south and as far as Grimsby

to the north. The Key Characteristics of this landscape type of relevance to the Zol are described as:

- *“Low lying, flat and open landscape with wide horizons and panoramas encompassing vast skies;*
- *Fertile soils supporting highly productive arable farming with limited biodiversity interest;*
- *Successive periods of enclosure creating local variations in character from organic late Saxon enclosures to rigid 19<sup>th</sup> and 20<sup>th</sup> century geometric field systems towards the coast;*
- *Field boundaries predominantly defined by wet dykes, sea walls, roads and canalised rivers; few hedgerows, hedgerow trees and woodlands;*
- *Large farm buildings and glass houses often associated with industrial scale agricultural and horticultural operations; and*
- *Coastal seaside resorts with large areas of static caravans and associated facilities contrast to productive farmland and remote countryside elsewhere.”*

1.4.4 As is the case with character assessment at the national scale, these are broad definitions that assist in building up an understanding of the landscape at a range of scales. It is not expected that these assessments will describe the specific character of the site and Zol.

## 1.5 Local Landscape Character

1.5.1 The description of landscape character undertaken at the sub-regional level is more relevant in establishing the landscape resource baseline of the Zol.

1.5.2 The following published assessments described the landscape character within the Zol:

- Strategic Landscape Capacity Study for South Holland District Council (2003);
- Landscape Character Assessment of Boston Borough (July 2009);
- North Kesteven Landscape Character Assessment (September 2007); and
- South Kesteven Character Assessment (January 2007).

1.5.3 The fact that such a large number of assessments of landscape character are available for the Zol is as a result of the meeting of a number of local authority boundaries. There are 6 unique character units within the Zol. While each of the published assessments describes individual Key Characteristics, the boundaries of individual character units are not necessarily so distinct in practice, and the landscape of the Zol in fact shares a number of common characteristic elements / features.

### South Holland District

1.5.4 The proposed converter station site, sections of the permanent access road and AC route fall within the Strategic Landscape Capacity Study for South Holland District Council (SLCS). The study notes on p.4, para 2.4, that the SLCS was commissioned specifically “*with the matter of the consideration of wind turbine developments, in support of the current and emerging Local Plan*”



*policies*". The capacity criteria accommodate development is not, therefore, relevant in to this assessment.

- 1.5.5 Two Landscape Character Types (LCT): Peaty Fens; and Settled Fens are found within the Zol and their key characteristics described below.

Peaty Fens LCT

- 1.5.6 The proposed converter station site, sections of the permanent access road and AC route are located at the northern periphery of this LCT which covers an extensive area across the south and west of South Holland District. The characteristics of this LCT are generally consistent with descriptions of the landscape character at the national and regional level. The description of the Peaty Fens LCT states:

- *"Flat topography, dissected by long straight roads, rivers, drainage channels and drainage ditches, often on raised banks (1-3 metres high). Predominantly linear settlement. Large scale, extensive views, and largely uninterrupted skyline. A sense of openness / exposure. A strong linear pattern, defined by geometric arable field of cereal and root crops, bounded by drainage channels or drainage ditches (not as intensive of [sic] Settled Fen)."*

- 1.5.7 The Key Characteristics of relevance to the Zol include:

- *"Flat landform;*
- *Geometric/linear fields; and*
- *Linear settlement and isolated farmsteads with associated shelterbelts."*

Settled Fens LCT

- 1.5.8 A small section of the permanent access road lies within the Settled Fens LCT. The accompanying description of this broad landscape type states:

- *"Predominantly flat topography, dissected by main roads, rivers, drainage channels and drainage ditches often on raised banks (1-3m). Primarily nucleated settlements with associated mature trees. Church spires and towers often rise above the mature vegetation to provide prominent landmark features. Medium to large fields with intensive market garden crops. Locally strong hedgerow elements. Views are restricted or foreshortened by shelterbelts and woodland or mature hedgerows. This contributes to a sense of enclosure with a more open feel between settlements. The main visual detractors are the 400kV and 132kV overhead lines on towers, electricity sub stations and power stations and urban fringe visual clutter (dominated by light industry and glasshouse horticulture)...note that within larger settlements, there are no views of adjacent fenland and this introspective quality reduces the awareness of place within the wider fenland landscape."*

- 1.5.9 The Key Characteristics of relevance to the Zol include:

- *"Flat landform;*
- *Nucleated settlements with mature vegetation and church spires; and*
- *Organic lines dominate e.g. winding roads."*

### Boston Borough

1.5.10 The Landscape Character Assessment of Boston Borough (LCABB) is the published assessment covering those parts of the Zol within Boston Borough. The LCABB identifies 4 broad LCTs that are sub-divided into 9 discrete Landscape Character Areas (LCA), of which the following are relevant:

- A1: Holland Reclaimed Fen; and
- B1: Bicker to Wyberton Settled Fen.

#### A1: Holland Reclaimed Fen LCA

1.5.11 The Holland Reclaimed Fen LCA is situated to the north of the proposed converter station site. Sections of the AC route pass through this character unit. The Key Characteristics of this LCA of relevance to the Zol are described as:

- *“Flat and low-lying reclaimed fenland;*
- *Open and expansive views with big skies and dark night skies with some views semi-enclosed at ground level by large embankments;*
- *More distant views to Boston Stump and to the Lincolnshire Wolds in East Lindsey District to the north;*
- *A man-made intensive arable landscape laid out in a regular geometric pattern with narrow roads and trackways alongside drains, dykes and ditches;*
- *The large North Forty Foot Drain and South Forty Foot Drain are key dominating features of the area;*
- *Field boundaries are typically open with wet ditches, dykes and drains and the occasional hedgerow;*
- *Occasional large scale horticultural glasshouses, and packing or processing plants occur near the southern boundary of the area;*
- *Sparsely populated with occasional small hamlets, scattered farmsteads, and occasional rows of former workers’ cottages. Occasional derelict farm cottages and field buildings.*
- *Sparse tree cover confined to shelterbelts, with occasional hedgerows and small blocks of mixed woodland with shrubby edges;*
- *Bicker windfarm and large scale pylons on the south western tip are modern landmark features; and*
- *A semi-remote, tranquil and intact working agricultural landscape.”*

#### B1: Bicker to Wyberton Settled Fen

1.5.12 The Bicker to Wyberton Settled Fen LCA is situated to the north-east of the Zol. The Key Characteristics relevant to this area include:

- *“A largely flat landform slightly elevated above the adjacent drained fenland;*
- *Open views with big skies;*

- Views to landmark water towers, and church towers and spires set amongst mature trees in historic villages. Other visible landmarks include the windfarm at Bicker and Boston Stump;
- An intact working rural landscape;
- Settlement pattern of widely spread villages, often medieval in origin, with farmsteads and dwellings scattered in between;
- Scattered agricultural buildings, horticultural glasshouses, packing sheds, poultry sheds, food processing plants and distribution centres which are of a mix of styles and ages;
- A relatively large scale organic network of winding roads is infilled by a geometric field pattern of predominantly arable fields;
- Generally tree cover is sparse with occasional hedgerows and hedgerow trees and infrequent blocks of mixed woodland;
- A scattering of visible heritage features with archaeological earthworks including medieval moated sites and saltern mounds;
- Listed Buildings and some designated Conservation Areas within historic villages;
- Towards the outskirts of Boston there are more modern influences including converging rows of large scale pylons and new recreational sites; and
- A distinctive, cohesive and legibly evolving agricultural landscape, which is peaceful in parts but not particularly remote.”

### North Kesteven

- 1.5.13 The North Kesteven Landscape Character Assessment (NKLCA) is the published assessment covering those parts of the Zol within North Kesteven District. The NKLCA defines 3 LCTs that are sub-divided into 9 unique Landscape Character Sub-Areas (LCSA).
- 1.5.14 The Fenland LCSA falls within the Zol and is situated to the west of the South Forty Foot Drain. The Key Characteristics of this LCSA relevant to the Zol are:
- “Low lying with very flat relief;
  - Occasional small islands of slightly higher land;
  - Very large, rich arable fields divided up by drainage channels;
  - A hierarchy of rivers drains and ditches creating linear patterns across the landscape;
  - The geometric road pattern follows the drainage pattern with small roads raised above the level of the fields, running from west to east
  - Generally extensive vistas to level horizons and huge skies, apart from in the north easterly direction where the Lincolnshire Wolds provide a marked “Upland” horizon;
  - Sparse woodland cover, though some occasional trees surrounding farmsteads and some shelter, belts particularly of poplars;
  - Intensively farmed and managed it is almost entirely a man-made landscape;
  - Except for scattered farmsteads and farm buildings the sub-area is unsettled; and
  - Prominent power lines and large-scale agricultural buildings.”

### South Kesteven

- 1.5.15 The Key Characteristics of the South Kesteven Character Assessment character area The Fens relevant to the Zol include:
- “Low flat terrain, level horizons and large skies;
  - Large-scale open rectangular fields, divided by drainage ditches and embanked rivers;
  - Sparse trees and woodland cover; and
  - Little settlement apart from individual farmsteads, often with large-scale agricultural buildings.”



## CONTACT US

---



You can find out more information by:



calling our freephone number:  
**0800 731 0561**



Sending an email to:  
**vikinglink@communityrelations.co.uk**



Writing to our freepost address at:  
**FREEPOST VIKING LINK**



Visiting our website at:  
**www.viking-link.com**

If you, or someone you know, would like information in Braille, audio, large print or another language, please call us on the freephone number above.