

7.0 LANDSCAPE AND VISUAL ASSESSMENT

7.1 Introduction

7.1.1 This Landscape and Visual Assessment forms part of the Environmental Impact Assessment of the biomass fuelled renewable energy plant (REP) at Brigg, North Lincolnshire.

7.1.2 Landscape and visual effects are separate, although closely related and interlinked issues. As such, assessments of the effects of the proposals upon the landscape and upon visual amenity have been carried out separately and are detailed under specific headings below.

7.1.3 The methodology used to carry out the landscape and visual assessment of the proposed development is based upon that set out in Guidelines for Landscape and Visual Impact Assessment (The Landscape Institute and Institute of Environmental Assessment – 1st ed. 1995 and 2nd ed. 2002). Details of the methodology can be found in Appendix 7-1. Where effects are adjudged to be ‘moderate to major’ or higher, these are considered to be significant in EIA terms.

7.2 Description of Study Area

7.2.1 The study area for the assessment of landscape and visual effects of the proposed development is shown on Figure 7.1 and covers an area extending approximately 5km from the site of the proposal, which is considered to be the maximum extent within which significant visual effects could occur for the type of development proposed. In order to help establish the baseline conditions for the assessment, a description of the study area is provided below.

7.2.2 The proposed development would cover an area of some 5.26 hectares approximately 0.5km south of the village of Scawby Brook. The town of Brigg lies some 0.75km to the north-east and the village of Scawby lies some 1.6km to the west.

7.2.3 The site of the proposed development was formerly the British Sugar works. Most of the buildings associated with the sugar works have been demolished,

with areas of hard standing where the buildings once stood. A small number of units remain, plus a single storey manned security office.

- 7.2.4 Areas north and north-east of the site consist largely of wet grassland and scrubby vegetation. A line of conifers, some twelve to fourteen metres in height, runs along the western part of the site boundary.
- 7.2.5 Immediately south of the site is the existing Glanford Brigg Power Station, which includes four chimney stacks of height 70m and other buildings and infrastructure of approximate height 15-20m. The upper portion of the main building is yellow in colour. The stacks are a pale silver grey colour.
- 7.2.6 Access to the site is via a road running east off the B1206. The B1206 itself runs north-south from the A18 at Scawby Brook to the A15, some 7km from the site. Minor roads run west from the B1206 into Scawby, whilst Brigg is accessed via the A18, which runs east-west through the town. The M180 motorway also runs east-west and bypasses Brigg to the north.
- 7.2.7 The railway from Grimsby to Gainsborough runs from north-east to south-west and passes immediately south of the existing power station.
- 7.2.8 The site lies at approximately 3-4m AOD in the flat and low-lying valley of the River Ancholme. The river has two separate courses; the Old River Ancholme, which follows an irregular course and is very narrow, except where it flows through Brigg; and the much wider, canalised, New River Ancholme, following a straight north-south course. Both courses of the river flow from south to north into the Humber.
- 7.2.9 A series of small drains and channels flow into the New River Ancholme from both east and west and act as drainage for the low-lying land south of the site.
- 7.2.10 To the west of the river, the land rises up to the Lincoln Edge, approximately 4km west of the site, which reaches a height of over 70m AOD in places. Along the top of the Edge, for almost 10km, is a long belt of woodland which screens views between the Ancholme valley on the east and Scunthorpe on the west. The lower, eastern slopes of the Edge are notable for the Roman

Road known as Ermine Street (now the A15 and a series of minor roads) which ran from London to York.

- 7.2.11 Where the Edge begins to rise out of the valley, three nucleated villages (from north to south, Broughton, Scawby and Hibaldstow) are situated along the B1207 and B1206. Part of Scawby is designated as a Conservation Area. Additionally, to the north of Scawby is Scawby Hall and its associated parkland, much of which is now farmed. The M180 lies immediately north of Scawby Hall.
- 7.2.12 On the east, the change in elevation is gentle for approximately 7.5km, and then the steep western escarpment of the Lincolnshire Wolds rises up as much as 60m above the land below. A spur extends south-west from the Wolds as far as the eastern suburbs of Brigg. The village of Wrawby is situated along the A18 which runs along the top of the spur.
- 7.2.13 Within the Ancholme valley, other than at Brigg, settlements and roads are few and far between. Most of the area was reclaimed from marshland in the eighteenth century and is characterised by a regular-shaped field pattern, with field boundaries either formed by low, gappy hedgerows, or without boundaries. Tree cover is very localised.
- 7.2.14 Brigg is a small market town situated at a crossing point over the River Ancholme, dating back to at least mediaeval times. The name Brigg derives from the bridge across the Ancholme. Today, the historic core of the town is designated as a Conservation Area. More recent, suburban development radiates from this core along the A' roads to the east and west. To the west, development is contiguous from Brigg into the village of Scawby Brook. There is little vegetation cover between Scawby Brook and the proposed development site.

7.3 Description of Proposed Development

- 7.3.1 A detailed description of the proposed development is set out in Chapter 4.0 of the Environmental Statement.

- 7.3.2 To summarise, the REP would be based around four main structures, a 30.6m high boiler house, two 16.8m straw barns, one slightly smaller wood barn and a stack of some 62m height (all heights are measured from a prepared slab level of 4.0m AOD).
- 7.3.3 Infrastructure associated with the development would include an office, forming part of the boiler house building, areas of hardstanding (including car parking), a weighbridge and landscaping around the site perimeter.
- 7.3.4 In order to avoid flood risk, the ground level of the eastern half of site would have to be raised to create a broadly level platform at circa 4m AOD. The development also includes an on-site flood compensatory storage and surface water drainage attenuation scheme.
- 7.3.5 The design life of the REP would be twenty-five years, subsequent to a two-and-a-half year construction and commissioning period. At the end of the design life the plant may be refurbished to extend its operational life beyond this period.
- 7.3.6 A landscape scheme, outlined in section 7.7 below, would provide longer-term mitigation of the effects of the development and would be controlled by a suitably worded planning condition (in line with local planning policy – see section 7.4 below). The indicative landscape design is illustrated on Figure 7.3.

7.4 Planning Policy Background

- 7.4.1 Full details of the planning policy background for the proposals, including an appraisal of their impact on relevant policies as set out in the adopted Statutory Development Plan, are included in Chapter 5.0 of this Environmental Statement.
- 7.4.2 Of particular relevance with regards to landscape and visual matters is Policy LC7 of the North Lincolnshire Plan, stating “*Where development is permitted within rural settlements or within the local countryside, special attention will be given to the protection of the scenic quality and distinctive local character of*

the landscape. Development which does not respect the character of the local landscape will not be permitted”.

- 7.4.3 Policy LC12 states that *“Proposals for all new development will, wherever possible ensure the retention of trees, woodland and hedgerows. Particular regard will be given to the protection of these features within the setting of settlements, the protection of ancient woodlands and historic hedgerows and the amenity value of trees in built up areas. Tree preservation orders will be made where trees which contribute to local amenity or local landscape character are at risk. Landscaping and tree and hedgerow planting schemes will be required to accompany applications for new development where it is appropriate to the development and setting”.*
- 7.4.4 Policy LC15 proposes that Brigg power station should be subject to a landscape enhancement scheme to be defined by negotiation and to be achieved through the use of planning conditions and agreements.
- 7.4.5 North Lincolnshire Council has published a range of Supplementary Planning Guidance (SPG), including a landscape character assessment and a countryside design summary (adopted jointly as SPG5), guidance on design in the countryside and guidance on trees and development.
- 7.4.6 Details of both the landscape character assessment and its companion guidance on design in the countryside can be found in section 7.5 below.
- 7.4.7 The guidance contained in Supplementary Planning Guidance (SPG) 3 Design in the Countryside, provides information as to the design of rural buildings (focussed on farm and residential development) and broad guidelines as to the development of landscape schemes.
- 7.4.8 The guidance on trees and development consists of a series of fourteen guidance notes adopted together in 2003 as SPG 11 Trees and Development. The SPG provides a range of information to guide developers as to the implications of their proposals upon trees. It should be noted that in 2005, a revised British Standard entitled *“BS 5837:2005 Trees in relation to construction: Recommendations was published by the BSI Group”*, which contains information that supersedes some of the provisions made in SPG11.

7.5 Landscape Impact Assessment

7.5.1 The assessment of landscape effects considers the potential effects of a proposed development on the landscape as an environmental resource. Landscape effects are caused by physical changes to the landscape, which may result in changes to the distinctive character of that landscape and how it is perceived.

National Landscape Character

7.5.2 At an England-wide level, 159 Joint Character Areas (JCA) have been identified by the former Countryside Commission (now Natural England). These are detailed in “*The Character of England (Countryside Commission 1996)*”, which is published in eight parts, each covering one region of England.

7.5.3 These JCAs provide background and context to more detailed landscape character assessments produced at county and district level. Their broad geographic reach means that the key characteristics identified as typical of a particular character area may not necessarily apply to a specific location within that character area.

7.5.4 The proposed development at Brigg lies within JCA 44: Central Lincolnshire Vale, close to the boundary with JCA 45: Northern Lincolnshire Edge with Coversands (see Figure 7.1).

7.5.5 Key characteristics of JCA 44: include; a broad, low-lying arable vale; a regular pattern of medium-sized fields enclosed by hedgerows with few hedgerow trees; a drained landscape north of Brigg; little woodland cover in the centre and north of the area; and sparse, nucleated settlements.

7.5.6 Key characteristics of JCA 45 include; a large-scale arable escarpment; an open landscape with rectilinear fields and few boundaries; and Roman roads and ancient track ways following north-south routes.

Local Landscape Character

- 7.5.7 North Lincolnshire Council unitary authority published the “*North Lincolnshire Landscape Character Assessment & Guidelines (LCA)*” in 1999. The LCA assesses the special character, distinctiveness and qualities of the landscape and includes landscape guidelines.
- 7.5.8 A companion to the LCA is the North Lincolnshire Countryside Design Summary (CDS), published at the same time. The CDS provides guidance to ensure that any development proposed is compatible with and complementary to the character of the North Lincolnshire countryside. The purpose of the CDS is defined as “*to identify the essential relationship between settlement and the countryside*”. The focus of the document is overwhelmingly geared towards development within settlements. It should be pointed out that the CDS (paragraph 8.7, page 31) describes the existing power station at Brigg as “*either a visual detractor or a contemporary landmark which adds to local character*”. Specific design guidelines for Brigg include to “*consider softening/establishment of tree and hedgerow interface of ‘raw’ town edges*”. Generic guidance for industrial type development includes to “*consider on-site landscape mitigation proposals, seeking to reflect and reinforce distinctive local character through use of locally native species and planting forms (e.g. large-scale forestry, woodland block, copse, hedgerow, hedgerow trees, scrub) which are characteristic of the surrounding landscape*”.
- 7.5.9 The LCA identifies six landscape character areas within North Lincolnshire, which are further broken down into a total of thirty-three distinct local landscape types.
- 7.5.10 The landscape character areas are based on the England-wide joint character areas and have similar boundaries. The site lies within the Vale of Ancholme character area, close to the boundary with the Lincolnshire Edge character area.
- 7.5.11 Key characteristics of the Vale of Ancholme (based on JCA 44) include: a broad, low-lying arable vale; intensive, large arable fields, with remnant hedgerows and artificially drained soils; variable woodland, with little on the

low-lying clays; and sparsely distributed settlements concentrated on elevated land creating a quiet and rural character.

- 7.5.12 Key characteristics of the Lincolnshire Edge character area (based on JCA 45) include: a large-scale escarpment landscape, mainly arable, with two locally distinctive north-south scarp slopes; a complex landscape including arable farmland, scarp slopes, urbanisation and heath, blown sand and conifer woods; open rectilinear farm fields with few boundaries; and the historically significant Roman road, Ermine Street.
- 7.5.13 The site lies within the Flat Valley Bottom Farmland (FVBF) local landscape type, abutting the boundary with the adjacent Elevated Open Farmland (EOF) local landscape type. The Elevated Woodland Farmland (EWF) local landscape type lies some 0.5km to the north-west. Also within the study area are the Open Undulating farmland (OUF), Heathy Woodland (HW) and Wooded Scarp Slopes (WSS) local landscape types.
- 7.5.14 Key characteristics of the FVBF local landscape type include: a flat, broad valley floor of artificially drained carrs, rising gently to the east; a peaceful area, scarce of settlement with traditional villages along the boundary; remarkably dispersed farmsteads; a network of remote, straight minor lanes, running mainly east-west, which reinforce the linear pattern of the landscape and tend to be access only; woodland limited and largely consists of small-medium deciduous blocks; some semi-natural vegetation along the river and roadsides; mature hedgerows and trees have a significant impact; large rectilinear fields relating to the drainage dykes, which emphasise the uniformity of the landscape; enhanced visual presence of transportation corridors situated on embankments; and visually intrusive transmission lines.
- 7.5.15 Key characteristics of the EOF local landscape type include: an exposed, open landscape with gently undulating terrain dipping to the east; extensive views to the east emphasised by the open character of the farmland; arable farmland with large-scale, open fields; lack of field boundaries due to severe hedgerow loss in places; limited tree cover and intensively clipped remnant hedgerows give a fragmented feel to the area, which is exacerbated by its windswept look and exposed nature; a mixture of building materials and styles dating from various periods; and the Roman road, Ermine Street.

- 7.5.16 Key characteristics of the EWF local landscape type include: a rolling upland landscape consisting of mainly arable farmland with a strong sense of unity; large-scale fields well contained by blocks of deciduous and coniferous woodland and hedgerows with trees; extensive views north-west and east; and local interest at Scawby Park.
- 7.5.17 Key characteristics of the OUF local landscape type include: an open, undulating arable landscape with a relative sense of elevation above the valley floor; some recent expansion of settlements near to infrastructure; railway and transmission lines visually prominent in open landscape; and M180 intrusive when viewed next to flat valley bottom , near to Brigg.
- 7.5.18 Key characteristics of the HW local landscape type include; an elevated, gently undulating landscape of deciduous and coniferous woodland containing open scrub and heath; attractive character, intimate and enclosed within the woodland contrasting with more open heath areas; several Sites of Special Scientific Interest (SSSI); and local historical interest (Ermine Street).
- 7.5.19 Key characteristics of the WSS local landscape type include: a sinuous scarp slope overlain by coversands; extensively wooded west facing slopes; significant areas left to nature with resultant development of deciduous woodland; and local nature conservation designations.
- 7.5.20 West Lindsey District Council published the West Lindsey Landscape Character Assessment in 1999. The document is a detailed assessment of the special character, distinctiveness and qualities of the landscape. That part of West Lindsey District within the study area lies within the Lincolnshire Clay Vale Character Area.
- 7.5.21 Key characteristics of the Lincolnshire Clay Vale Character Area include: a mix of arable and pasture farmland, with a large-scale field pattern with well maintained field boundaries and few hedgerow trees; flatter land to the north, with open dykes and ditches draining into the River Ancholme; remnants of carr vegetation towards the north; straight roads with characteristic right-angled corners; dispersed, sparse settlements; and long views towards the Wolds scarp to the east.

Landscape Assessment

- 7.5.22 For the purposes of this report, no scheme-specific character areas have been identified, as the existing local landscape types/landscape character areas identified at district level (North Lincolnshire Landscape Character Assessment & Guidelines and West Lindsey Landscape Character Assessment) provide sufficient detail to enable an assessment of the landscape effects of the proposals to be made (for details of methodology refer to Appendix 7-1).
- 7.5.23 The effects of the proposed development on the landscape fabric and landscape character of the study area are set out below. The assessment considers the effects on landscape fabric and the effects on landscape character that would result from the proposed development in both the short- and longer-terms.

Assessment of Landscape Impacts

Table 7.1: Landscape Character Assessment

Landscape Character Area/Type	Landscape Impacts				
Flat Valley Bottom Farmland (FVBF)	<i>Landscape Fabric</i>				
	Sensitivity		Magnitude		Significance
	Low to Medium		Medium		Minor to Moderate
	<i>Landscape Character</i>				
	Quality	Value	Sensitivity	Magnitude	Significance
Low	Low	Low to Medium	Small	Minor	
Elevated Open Farmland (EOF)	<i>Landscape Fabric</i>				
	Sensitivity		Magnitude		Significance
	Low to Medium		None		No Material Effect
	<i>Landscape Character</i>				
	Quality	Value	Sensitivity	Magnitude	Significance
Medium	Medium	Low to Medium	Small	Minor	
Elevated Woodland Farmland (EWF)	<i>Landscape Fabric</i>				
	Sensitivity		Magnitude		Significance
	Medium		No Change		No Material Effect
	<i>Landscape Character</i>				
	Quality	Value	Sensitivity	Magnitude	Significance
Medium	High	Low to Medium	Very Small	Slight to Minor	
Open Undulating Farmland (OUF)	<i>Landscape Fabric</i>				
	Sensitivity		Magnitude		Significance
	Medium		No Change		No Material Effect
	<i>Landscape Character</i>				
	Quality	Value	Sensitivity	Quality	Value
Medium	High	Low	Medium	High	
Heathy Woodland (HW)	<i>Landscape Fabric</i>				
	Sensitivity		Magnitude		Significance
	Medium to High		No Change		No Material Effect
	<i>Landscape Character</i>				
	Quality	Value	Sensitivity	Magnitude	Significance
High	High	Low	Negligible	Negligible	
Wooded Scarp Slopes (WSS)	<i>Landscape Fabric</i>				
	Sensitivity		Magnitude		Significance
	Medium		No Change		No Material Effect
	<i>Landscape Character</i>				
	Quality	Value	Sensitivity	Magnitude	Significance
Medium	High	Low	No Change	No Material Effect	
Lincolnshire Clay Vale	<i>Landscape Fabric</i>				
	Sensitivity		Magnitude		Significance
	Medium		No Change		No Material Effect
	<i>Landscape Character</i>				
	Quality	Value	Sensitivity	Magnitude	Significance
Medium	Medium	Low to	Small	Minor	

Landscape Character Area/Type	Landscape Impacts				
			Medium		

7.5.24 The effects of the proposed development upon the landscape fabric of the Flat Valley Bottom Farmland (FVBF) landscape type would be **minor to moderate** in significance. The sensitivity of the landscape fabric is considered to be **low to medium** as the various components of the landscape are commonplace throughout the area and could be easily replaced. Much of the development site is currently hardstanding with minimal vegetation cover. Some tree loss would occur as a result of the development but the implementation of the proposed landscape scheme would lead to a considerable increase in both areas of woodland and grassland. As such, the magnitude of change undergone by the landscape fabric would be medium and would be **beneficial** in nature.

7.5.25 The effects of the proposal upon the landscape character of the FBVF landscape type would be **small** in magnitude and **minor** in significance. Both the quality and value of the landscape are considered to be at best **low** as the landscape appears largely intact (but bland); however, intrusive man-made features are present such as electricity pylons, the railway line and the existing power station. The sensitivity of the landscape to change is considered to be **low to medium** due to the combination of the uniformity of the field pattern, lack of tree cover and general openness, together with the presence of the existing Glandford Brigg Power Station as a key landscape feature. The proposed development would be apparent as a new element within the landscape type without affecting the balance of the landscape characteristics. The changes in landscape character brought about the development are considered to be keeping with the guidelines set out in North Lincolnshire Landscape Character Assessment & Guidelines, which include planting medium-sized blocks of woodland concentrated near to areas with intrusive impacts, management and/or replacement initiatives to encourage hedgerow development and increasing the cover provided by hedgerow trees near to transmission lines. As such, the changes in landscape character are considered to be **neutral** in the short-term and are likely to become **beneficial** as planting matures.

- 7.5.26 **No material effect** would result on the landscape fabric of the Elevated Open Farmland (EOF) landscape type due to the proposal. The proposed development would be situated just outside the boundary of the landscape type. With regards to landscape character, a **small** magnitude of change resulting in an effect of **minor** significance would be experienced. Both the quality and value of the landscape are considered to be at best **medium** as the landscape appears largely intact (but bland); however, intrusive man-made features are present such as electricity pylons, the railway line and the existing power station. The sensitivity of the landscape to change is considered to be **low to medium** due to the combination of the uniformity of the field pattern, general lack of tree cover and largely open character, together with the presence of the existing Glanford Brigg Power Station as a key landscape feature. The proposed development would be apparent as a new element within the landscape type without affecting the balance of the landscape characteristics. In the longer-term, as the planting associated with the proposal reaches maturity, a more diverse landscape character would ensue; hence longer term effects of the proposal would be **beneficial** in nature.
- 7.5.27 The fabric of the Elevated Wooded Farmland (EWF) landscape type would experience **no material effect** due to the proposal as development would take place outside the landscape type. The effects upon landscape character would be **very small** in magnitude and **slight to minor** in significance of effect. The quality of the landscape is considered to be **medium** due to a combination of its general intactness and intrusive features, notably the M18. The value of the landscape is considered to be locally **high**, evidenced chiefly by the parkland at Scawby Hall. The sensitivity of the landscape type to change is considered to be **low to medium** due to the undulating landform, large open field pattern, areas of tree cover towards the south of the landscape type and the presence of the existing Glanford Brigg Power Station. The proposed chimney stack would be evident on the skyline to the south-east, but would be inconspicuous as a distinct new feature, appearing as an addition to, and in association with, the existing stacks at Glanford Brigg Power Station. Views from within the historic parkland at Scawby Hall would be largely screened by boundary vegetation and therefore effects on this historic landscape would be minimal. The proposed landscaping would add longer-term interest to the landscape.

- 7.5.28 The Open Undulating Farmland (OUF) landscape type would experience **no material effect** upon the landscape fabric as the proposed development would be located outside the boundaries of the landscape type. Effects upon landscape character would be **slight to minor** in significance, resulting from a **small** magnitude of change. The quality of the landscape is considered to be **medium**, again being an intact landscape without particular distinctiveness and the presence of intrusive man-made features (pylons). The value of the landscape is considered to be **high**, largely because of the views out of the type to the west. The proposed development would be apparent in views to the west in association with the existing Glandford Brigg Power Station and would not affect the balance of the characteristic features of the landscape.
- 7.5.29 **No material effect** would be experienced by the fabric of the Heathy Woodland (HW) landscape type as a result of the proposed development. The effects upon landscape character would be **negligible** in both magnitude and significance. The landscape type is considered to be of **high** quality and value due to the extensive woodland cover in the area which is both attractive and publicly accessible. The sensitivity to change of the landscape type is **low** as the character of the area is defined by the woodland areas which would be not be affected by development in the Ancholme valley. The proposal would be indistinct at worst from the majority of the landscape type and would be visible, though unremarkable, within views from the edges of the type.
- 7.5.30 The proposed development would result in **no material effect** upon either the landscape fabric or landscape character of the Wooded Scarp Slopes (WSS) character area. As the proposal lies outside the boundaries of the landscape type, the landscape fabric would remain unaffected. The proposal would lie in the opposite direction to the characteristic westward looking views from the landscape type and would be well screened in views looking eastwards.
- 7.5.31 **No material effect** would be experienced upon the landscape fabric of the Lincolnshire Clay Vale character area as the proposal would be situated outside the boundaries of the area. With regards to landscape character, a **small** magnitude of change resulting in an effect of **minor** significance would be experienced. Both the quality and value of the landscape are considered to be at best **medium** as the landscape appears largely intact (but bland);

however intrusive man-made features are present such as electricity pylons, the railway line and the existing power station. The sensitivity of the landscape to change is considered to be **low to medium** due to the combination of the uniformity of the field pattern, general lack of tree cover and largely open character, together with the presence of the existing Glanford Brigg Power Station as a key landscape feature. The proposed development would be apparent as a new element within the landscape type without affecting the balance of the landscape characteristics.

- 7.5.32 To summarise, of the seven landscape character areas/types identified at local authority level, none would experience effects on the landscape fabric of greater than minor to moderate significance and, with regards to landscape character, none would experience effects of greater than minor significance.

7.6 Visual Impact Assessment

- 7.6.1 A visual assessment is concerned with the potential effects that may occur due to a proposed development upon the population likely to be affected. It assesses the change in visual amenity undergone by specific receptors that would arise from any change in the nature of views experienced as a result of the proposal.

Visual Receptors

- 7.6.2 The various visual receptors that would experience views of the proposals have been identified. Visual receptors can include, but are not necessarily limited to, residents in surrounding properties, users of public rights of way and other routes, travellers on public roads and railways and people at their place of work.
- 7.6.3 A series of representative viewpoints (VP's) have been chosen from which to provide a detailed assessment of the visual effects of the proposed development. The VPs were chosen to provide coverage of views from the more sensitive visual receptors within the study area and to provide coverage of potential views of the proposed development from a range of directions.

- 7.6.4 A summary of the visual receptors identified as part of this study is set out below, with an assessment of the visual effects that would be experienced by each VP receptor as a result of the proposals provided in Appendix 7-2 (refer to Appendix 7-1 for methodology). The existing view from each VP receptor is illustrated on Figure 7.2a-7.2f. Additionally photomontages from VPs 3, 5 and 6 illustrating the likely change in view are shown on the same figures.
- 7.6.5 Details of photomontage locations were provided to North Lincolnshire Council as part of the pre-application consultation process, although no response as to the suitability of the photomontage locations was received.
- 7.6.6 The existing power station, and in particular its chimney stacks, is visible from much of the study area. The chimneys are a prominent feature and act to screen the proposed development site in views from the south and south-east

Residential Properties

- 7.6.7 Residential properties within the study area are largely confined to settlements, with the occasional isolated dwelling in the countryside.
- 7.6.8 Properties at the southern edge of Wrawby have clear, though distant, views towards the site of the proposal from an elevated position to the north-east (refer to VP 1).
- 7.6.9 Properties at the north-western edge of Cadney have clear, though distant, views towards the site where vegetation allows (refer to VP 2).
- 7.6.10 Properties at the south-western edge of Brigg have views towards the site which are in general filtered by intervening vegetation within gardens, along property boundaries or along the Old River Ancholme (refer to VP 3).
- 7.6.11 The few isolated farm dwellings in the countryside south of Brigg on either side of the river have direct views towards the site; however some screening is afforded by the tree cover which tends to be located around these properties.
- 7.6.12 Views towards the site from the northern edge of Hibaldstow are restricted by the screening woodland to the north at Traffords Covert. From the north-west

edge of the village, properties on the B1207 Station Road have clear, though distant, views towards the site (refer to VP 4).

- 7.6.13 Views from properties at the eastern edge of Scawby are restricted by the vegetation growing in the gardens of the five properties just to the east of the village, which themselves have their principle aspects oriented at right angles to the site (refer to VP 5).
- 7.6.14 Views from properties at Scawby Brook towards the site are available from both sides of the B1206. Both single-and two storey properties face the site with some views from the northern side of the road blocked by the intervening buildings on the southern side. There is little vegetation between the village and the site. Properties to the western side of the village, on Brook Lane are better screened by garden vegetation and have only oblique views of the site, which is to the south-east (refer to VP 6).
- 7.6.15 A small number of properties at the southern edge of Broughton have views towards the site (refer to VP 7). However the bulk of properties along the edge of the village which would potentially have views are screened by the intervening woodland at Sinney Hills Plantation and Springfield Plantation.

Public Rights of Way and Other Routes

- 7.6.16 The study area has only a sparse network of public rights of way when compared against other rural areas. Users of the footpath running along Old River Ancholme have clear views of the site and the existing power station, which lies immediately across the river to the west (refer to VP 3). Users of the footpath running north-west from the A18 to the B1208 at the edge of Brigg have direct views of the site screened by intervening buildings.

Public Roads and Railways

- 7.6.17 Travellers on the road network that runs through the study area have views towards the site of the proposed development largely screened by distance and intervening features.

- 7.6.18 Exceptions to this are the B1206 south-west of Scawby Brook, where clear views of the site can be experienced from the road, particularly when travelling north and the minor road east of the Ancholme which runs from Brigg to Cadney, where similar views are available.
- 7.6.19 Railway travellers have views into the site from the south.

Places of Work

- 7.6.20 Those people working at the existing Glanford Brigg Power Station have clear views into the site from the south and east. Those working at the small businesses in Scawby Brook have clear views towards the site from the north (refer to VP 6).

Assessment of Visual Impact

- 7.6.21 The proposed development would, by its nature (tall chimney stack), be visible over a wide area. Potential effects are, however, limited by the presence of the existing Glanford Brigg Power Station which is adjacent to the site of the proposal. The existing power station includes a total of four chimney stacks which are all taller than the proposed chimney. As such, the introduction of a fifth, shorter stack would not result in any change in the nature of view from most angles and would not appear out of place, or indeed inappropriate, when considered in the context of the existing stacks.
- 7.6.22 The proposal would, in the majority of views, especially at distances further from the site, appear largely as an extension to the existing power station and not as a distinct new feature within such views. At closer-range views from the north, this would not be the case: the proposal would, in views from this direction (such as from the residential properties at Scawby Brook) be a prominent new feature within the flat treeless landscape. As the proposed woodland planting along the northern and western boundaries of the development site matures, the new buildings and related infrastructure would be better screened in views from the north and north-west. However, upper sections of the boiler house and the chimney stack would remain prominent.

- 7.6.23 The visual impacts that would be experienced by each VP receptor are scheduled in Appendix 7.2 and can be summarised as follows:
- 7.6.24 Of the seven VP receptors identified, at one, Scawby Brook (VP 6), a major effect upon visual amenity would be experienced. At two VPs, the southern edge of Brigg (VP 3) and to the east of Scawby (VP 5), effects of moderate to major significance would be experienced. At the remaining four VPs, the effect of the proposal upon visual amenity would be of moderate significance.

Historic Features

- 7.6.25 Effects upon the setting of historic features would be minimal. The setting of the Conservation Area at Brigg (containing many listed buildings/structures) would not be affected as this lies within the town centre and is focused inwards, rather than outwards and also as surrounding built development would act to screen views towards the site.
- 7.6.26 The Conservation Area at Scawby (containing many listed buildings/structures) would be well screened by vegetation and buildings at the edge of the village with no tangible effect on the setting. The focus of the Conservation Area is largely inwards or northwards (towards Scawby Hall).
- 7.6.27 The setting of Scawby Hall and its parkland would not experience any notable effect. The proposal, and in particular the stack, would be apparent but views would be filtered through vegetation at the park boundary and would differ little from the baseline views of the existing power station. The M180 cuts through the parkland and is a significant detractor from setting within the confines of the park; when considered against this, the effect of the proposal would be minimal.
- 7.6.28 Within Scawby Brook there are several listed features and a scheduled ancient monument (SAM). Listed features comprise the bridge that carries the A18 across the river and two buildings, Arties Mill to the north of the village close to the M180 and a building at Yarborough Court towards the east of the village. The SAM (Castlethorpe Moated Site) is a medieval moated site on the northern side of the A18 and includes buried and earthwork remains. It is not considered that the proposal would affect the setting of any of these. Neither

the bridge nor the SAM are by their nature visually sensitive. The setting of the two buildings is defined by the adjacent built development which significantly limits the areas within which such setting can be affected and acts to screen views towards the site of the proposal.

- 7.6.29 Further consideration of the effects of the proposal upon the archaeological and cultural heritage resource is set out in Chapter 13.0 of this Environmental Statement.

Plume Visibility

- 7.6.30 A full consideration of plume visibility is set out in Chapter 12.0 of this Environmental Statement.
- 7.6.31 To summarise, the plume would be visible for only around 12% of the time and would extend beyond the site boundary only 3.5% of the time. As such, it is considered that no significant visual effects would occur resulting from plume visibility.

7.7 Mitigation

- 7.7.1 In order to provide a level of mitigation against the potential adverse landscape and visual effects of the development, landscape works would be implemented as part of the proposal. An indicative landscape design is shown on Figure 7.3.
- 7.7.2 An extensive area of new woodland planting would extend north from the site entrance along the western and northern boundaries of the site. This would, as the trees mature (it has been assumed that tree height would be some 5m ten years after planting), provide some visual screening for the properties at Scawby Brook from the effects of the development (with the exception of the chimney stack and the upper sections of the boiler house). The woodland would also be in keeping with the guidelines for the Flat Valley Bottom Farmland landscape type as set out in North Lincolnshire Landscape Character Assessment & Guidelines, which include planting medium-sized blocks of woodland concentrated near to areas with intrusive impacts.

- 7.7.3 The species mix for both the woodland itself and the woodland edge would be drawn largely from the species' indicated in North Lincolnshire Council's SPG 3 Design in the Countryside and would include species appropriate to the potentially wet conditions of the flood compensation area. Trees and shrubs would be set in an appropriate ground flora seed mix. Indicative planting mixes are shown on Figure 7.3.
- 7.7.4 The southern and eastern boundaries of the site would be marked by new hedgerow planting with trees, again in keeping with guidelines for the landscape type. The provision of hedgerows would help to integrate the site perimeter with its surroundings, with beneficial effects on landscape character.
- 7.7.5 The area between the proposed site buildings and the woodland at the western boundary would be seeded with a species-rich mix which would be low in maintenance costs and would enhance wildlife diversity. The mix would also be sown in the flood compensation areas and would contain species suitable for wetter soils/wetlands. It may be possible, subject to operational requirements, to provide an appropriate mix of wetland plants around the water margins of the proposed attenuation lagoon.
- 7.7.6 It is considered that the indicative landscape works proposed are in keeping with the guidance set out in North Lincolnshire Council's *SPG 5 Countryside Design Summary*, with regard to development in and around Brigg and also with regard to industrial type development in general.

7.8 Conclusion

- 7.8.1 The landscape and visual effects of the proposed biomass fuelled REP at Brigg, North Lincolnshire have been assessed.
- 7.8.2 The significance of landscape effects upon the seven landscape character areas/types identified by North Lincolnshire Council and by West Lindsey District Council would be no greater than minor to moderate in terms of landscape fabric and no greater than minor in terms of landscape character. None of these effects are considered to be significant in EIA terms.

- 7.8.3 The effect of views of the proposed development would vary in significance depending upon the location of the viewer. With regards to the seven VPs from which visual effects were assessed, viewers at VP 6, Scawby Brook, would experience visual effects of major significance and viewers at VPs 3 (southern edge of Brigg) and 5 (east of Scawby) would experience effects of moderate to major significance. These three viewpoints would experience effects considered to be significant in EIA terms. Effects would reduce in the longer-term as screen planting becomes more effective and the lower parts of the proposal would not be visible.
- 7.8.4 It is important to note that the actual change in view that would result from the proposal would be limited, with the greatest magnitude of change being only medium. The significant nature of the effects experienced is due to the highly sensitive nature of the visual receptors, rather than the introduction of the proposed development, which is similar in type to the adjacent existing power station.
- 7.8.5 The proposed landscape works would lead to a considerable increase in both woodland and grassland when considered against the existing situation. As trees become more mature, visual screening of some of the proposal would be achieved, although the chimney stack and upper parts of taller buildings would remain visible. Additionally, the development of the woodland would be in keeping with landscape guidelines currently followed by North Lincolnshire Council.
- 7.8.6 In conclusion, the proposed development would not have a significant effect upon landscape character. The Glanford Brigg Power Station is a notable feature in the local landscape and the addition of the proposal would lead to little change in the balance of landscape characteristics. The increased tree cover proposed as part of the landscape scheme would enhance landscape character in the longer-term.
- 7.8.7 Some residential properties to the north, north-east and north-west of the proposed development, which have clear views towards the site, will experience significant visual effects in EIA terms, although actual change in view would be limited due to the presence of the existing power station at Glanford Brigg. The proposal would be more evident than the existing power

station. Proposed woodland planting would provide screening of views, once trees have matured, reducing the visual effects of the proposal in the longer-term, although the stack and upper parts of the boiler house would continue to be visible.