The Drax Power (Generating Stations) Order

Land at, and in the vicinity of, Drax Power Station, near Selby, North Yorkshire

Environmental Statement
Appendix 10.4 – Landscape and Visual Baseline

The Planning Act 2008
The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 – Regulation 5(2)(a)

Drax Power Limited

Drax Repower Project

Applicant: DRAX POWER LIMITED
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Table of Contents

Table of Tables

1 LANDSCAPE CHARACTER AND VISUAL AMENITY BASELINE

1.1 Landscape Characterisation

National

1.1.1. The Site and the study area lie within National Character Area (NCA) Profile 39 Humberhead Levels[1], which is described as an area with: “big expansive skies, and vertical elements like water towers, power stations and wind turbines are very prominent”.

1.1.2. These power stations include Drax and Eggborough to the west.

1.1.3. To the north lies NCA Profile 28 Vale of York, west NCA 30 Southern Magnesium Limestone whilst to the east are a series of NCAs the closest being NCA 45 Northern Lincolnshire Edge and Coversands to the south of the Humber and NCA 27 Yorkshire Wolds to the north. NCA 41 the Humber Estuary wraps around the river edge.

1.1.4. The NCA are at a large scale and cover a considerable area. It is considered that for this scale of assessment both the county and local landscape character assessments are a more appropriate tool by which to determine landscape character.

County

1.1.5. The North Yorkshire and York Landscape Characterisation[2] covers part of the study area including the Site. The document identifies Landscape Character Types (LCTs) at a county level. The Site lies within the Farmed Lowland and Valley Landscape Primary Landscape Unit (PLU). This PLU forms a belt running north south through North Yorkshire and is divided up into 11 LCTs of which the Levels Farmland (23) and River Floodplain (24) LCT are relevant to the Site.

1.1.6. The relevant characteristics of these LCTs are outlined in Table 10.4.1 below along with the key characteristics of other County PLUs and LCTs that are relevant to the Study Area (Figure 10.4). The management strategy, landscape value, susceptibility to change and sensitivity of each landscape resource is summarised in Appendix 10.5.

Table 10.4.1 - Landscape Character Types and Areas within the Study Area

Primary Landscape Unit	Key characteristics (summarised from the LCP)
North Yorkshire Landscape Characterisation Project (LCP)	
Farmed Lowland and Valley Landscapes (PLU)	
Levels Farmland (23) (includes the Power Station Site and the western part of the Pipeline Study Area)	• *“Predominantly flat, low-lying landscape which encompasses a patchwork of arable fields;* • *Large scale, open and rectilinear field pattern;* • *Dykes or ditches often form field boundaries, with an general absence of hedgerows;*

[1] Natural England, 2013, NCA Profile 39: Humberhead Levels
[2] Chris Blandford Associates, 2011, North Yorkshire and York Landscape Characterisation Project, North Yorkshire County Council

Primary Landscape Unit	Key characteristics (summarised from the LCP)
	• *Industrial scale farm buildings, large embankments and drains, and major energy and transport infrastructure contribute human elements; and* • *Historical features, such as windmills, recording past attempts to drain the landscape are key features"*
River Floodplain (24) includes the middle and eastern end of the Pipeline Study Area)	• *"A series of flat, low lying, relatively narrow river corridors which flow through the different types of Vale Farmland LCT within the Study Area;* • *The 'Ings' - flood meadows maintained by traditional hay making activities;* • *Landscape pattern comprises a mixture of flood meadows, neutral grasslands and floodplain mires;* • *Halls and manor houses are key landscape features;* • *River engineering features such as Levees assert a human influence over the landscape;* • *Power stations, pylons and former collieries; and* • *The A1 (M) introduces a source of noise and visual intrusion in several places".*
Vale Farmlands with Plantation Woodlands and Heathland (28)	• *"A patchwork of low lying, predominantly arable fields, often delineated by a network of mature hedgerows and interspersed with patches of regular shaped mixed and coniferous plantation woodlands;* • *Large heathlands are key features on sandy soils;* • *Distant visual containment is provided by higher Landscape Character Types to the east and west;* • *Strong sense of openness throughout much of this Landscape Character Type;* • *Scattered settlement pattern of towns, villages and farmsteads within the landscape around the main historic City of York (which forms part of the Urban Landscapes Primary Landscape Unit);* • *A network of trunk roads linking the larger settlements and towns"*
Urban Landscape (PLU) Selby	• *"Contrasts in settlement size and pattern, encompassing a mixture of cities and principal towns;* • *Settlements often contain a historic core which encompasses a pattern of historic buildings and streetscapes, displaying a vernacular tradition of local building materials;* • *The historic core is often surrounded by Victorian residential expansion and more modern suburban housing areas;* • *Urban areas also contain a mixture of industrial and commercial areas, alongside town and city centres – containing wide range of shops;*

Primary Landscape Unit	Key characteristics (summarised from the LCP)
	• *Urban areas usually contain a patchwork of green spaces/corridors amongst the urban fabric, including parks, encapsulated countryside and river corridors;* • *Different ages of settlement are reflected by contrasting street patterns, densities and architectural styles, although there is often homogeneity within different areas of townscape (for example, Victorian suburbs and post 1960's suburbs);* • *The surrounding landscape provides a setting for the edges of each urban area, which is a determining factor in their distinctiveness and sense of place."*

Local

At a local level the Study Area is divided by the following landscape character assessments adhering to administrative boundaries refer to Table 10.4.2). The management strategy, landscape value, susceptibility to change and sensitivity of each landscape resource is summarised in Appendix 10.5 and illustrated in Figure 10.11.1.

- The Landscape Assessment for Selby District[3].
- The East Riding of Yorkshire Landscape Character Assessment[4].
- Doncaster Landscape Character Assessment and Capacity Study[5].

Table 10.4.2 - Local Landscape Character Types and Areas

Landscape Character Types and Landscape Character Areas	Key characteristics (summarised from the LCAs)
Landscape Character Assessment of Selby District	
Camblesforth Lowlands (includes the Power Station Site and the western part of the Gas Pipeline Area)	• *"Flat, semi enclosed arable farmland with frequent lines of hedgerow tress, and patches of semi-natural scrub;* • *Scattered small broadleaf and mixed woodland plantations and shelterbelts on lighter arable farmland;* • *Ponds and scrub woodland on the edge of Selby;* • *Sparse pattern of settlement; and* • *Influence of the visually prominent Drax Power Station on the local landscape."*

[3] Woolerton Dodwell Associates, 1999, The Landscape Assessment for Selby District, Selby District Council
[4] Carl Bro, 2005, The East Riding of Yorkshire Landscape Character Assessment, East Riding of Yorkshire Council

[5] ECUS Ltd, 2007, Doncaster Landscape Character Assessment and Capacity Study, Doncaster Metropolitan Borough Council

Landscape Character Types and Landscape Character Areas	Key characteristics (summarised from the LCAs)
Wharfe – Ouse River Corridor (includes the middle and eastern end of the Gas Pipeline Area)	• *"Open heavily drained arable farmland with occasional mixed farmland* • *Important areas of wetland, diverse marshy grasslands and unimproved neutral grassland* • *High grassy flood embankments, which visually isolate the river from the surrounding landscape* • *Large number of strategically sited historic villages* • *Prime highway for trade and communication* • *Influence of the Drax power station on the river landscape* • *Striking changes in the appearance of the river due to tidal variations"*
River Aire Corridor (edges the middle and eastern end of the Gas Pipeline Area)	• *"Principal highway for trade and communication;* • *Strong influence of large scale industrial and infrastructure development, in particular power stations and the motorway on the river landscape;* • *Varied character combing flat open farmland and semi-enclosed arable farmland, and small areas of flat wooded farmland;* • *Open heavily drained arable farmland on valley floor, with high grassy flood embankments, and areas of smaller scale mixed farmland;* • *Strategically sited historic villages;* • *Historic parkland and country mansions; and* • *Important wetlands, diverse marshy grasslands and unimproved neutral grasslands."*
East Selby Farmlands	• *"Predominantly flat arable farmland, medium in scale and with frequent lines of hedgerow trees and strong pattern of enclosure* • *Area of more traditional mixed farmland with small-medium scale pattern of fields, thick rich hedgerows and numerous hedgerow of trees* • *Unimproved pastoral scenery of the narrow river Derwent floodplain which is of high conservation value* • *Dispersed pattern of farmsteads and small nucleated villages"*
Hambleton Sandstone Ridge	• *"Low but distinctive ridge is characterised by two wooded hills* • *Gently undulating arable farmland* • *Parkland that provides the setting to Gate-forth Hall"*
West Selby Plain	• *"Extensive area of flat open low-lying farmland with arable crops intensively cultivated in large or very large fields with few trees or hedgerows* • *Belt of semi-enclosed or lightly wooded landscape with frequent hedgerow trees and small woodlands*

Landscape Character Types and Landscape Character Areas	Key characteristics (summarised from the LCAs)
	• *Very sparse settlement, with only a few isolated properties* • *Bishop's Wood, the largest woodland in Selby* • *Rural fringe character of farmland adjacent to Selby Church Fenton airfield, still in use as a training centre by the RAF"*
Skipwith Lowlands	• *"Flat wooded arable farmland, visually enclosed and characteristically estate-managed* • *Extensive area of semi-natural lowland heath of high conservation value* • *Many scattered farmsteads and cottages have a unity of style, reflecting estate ownership* • *Unimproved pastoral scenery of the narrow river Derwent floodplain which is of high conservation value* • *The Riccall mine developed on the former Riccall airfield* • *Wide grassy verges"*
East Selby	• *"Predominantly flat arable farmland, medium in scale and with frequent lines of hedgerows and a strong pattern of enclosure* • *Area of more traditional mixed farmland with small medium scale pattern of fields, thick rick hedgerows and numerous hedgerow trees* • *Unimproved pastoral scenery of the narrow river Derwent floodplain which is of high conservation value* • *Dispersed pattern of farmsteads and small nucleated villages"*
Southern Farmland	• *"Varied character, predominantly flat semi-enclosed arable farmland, with an area of estate-managed wooded farmland, and an area of larger scale more open farmland;* • *Distinctive area of more traditional mixed farmland to the south of Blane moor, with pastures and orchards;* • *Small wetlands, some of which are medieval moats; Networks of minor roads and lanes linking scattered properties and settlements;* • *Traditional farmhouses typically constructed in red brick;* • *Distinctive landform of the ash disposal site Gale Common; and* • *Generally quiet and tranquil character largely unaffected by urban and industrial development."*
• **East Riding of Yorkshire Landscape Character Assessment**	
Landscape Character Type 4: River corridors	• *"Low lying flat floodplain of the river valleys on the western edge of the East Riding.* • *Combination of grassland pasture and meadow that are subject to seasonal flooding.* • *Man-made embankments formed as a result of dredging in the twentieth century.* • *Riparian woodland and trees in the corridor.*

Landscape Character Types and Landscape Character Areas	Key characteristics (summarised from the LCAs)
	• *Areas of species rich alluvial flood meadow habitat.* • *Organic arrangement of medium sized fields combined with more regular boundaries of enclosed fields.* • *Cultural and historic associations include churches and river crossing points.* • *Several moated sites within the corridor.* • *Windmills are a particular feature on the Ouse east of Goole.* • *Intimate isolated corridor landscape that is a marked contrast from surrounding intensively farmed land.* • *Villages, hamlets and farmsteads line the river corridor just above the floodplain."*
Landscape Character Type 5 Open Farmland	• *"Low lying flat landscape below 10m AOD.* • *Relatively featureless intensively farmed arable landscape.* • *Large areas are in the riparian flood plain of the River Derwent.* • *Large scale fields with fragmented hedgerow boundaries. Boundaries lost in places.* • *Open character with extensive views across the flat landscape.* • *Few woodland blocks and relatively little tree cover contributing to extensive views that include Drax Power Station to the southwest.* • *Howden in the largest settlement.* • *Howden Minster is an important landmark.* • *Small villages and Farmsteads are scattered throughout but overall settlement density is low. Many of these villages have Saxon origins.*
Landscape Character Type 7 – Foulness Open Farmland	• *Low lying flat landscape with open views stretching as far as the Wolds in the east.* • *Very few trees and woodland.* • *Sparse settlement consisting mainly of scattered farmsteads* • *Few roads or public rights of way.* • *Large and very large rectilinear fields surrounded by fragmented hedgerows.* • *Regular rectilinear drainage ditches feeding into the more sinuous River Foulness.* • *Important location of Iron Age settlement and iron working.* • *Roman and medieval archaeology is also present".*
Landscape Character Type 8 M62 Corridor Farmland	• *"Low lying flat agricultural landscape.* • *Open views particularly from the motorway which is slightly raised above the surrounding area.* • *Communication infrastructure is a prominent feature i.e. motorway, roads and canal.*

Landscape Character Types and Landscape Character Areas	Key characteristics (summarised from the LCAs)
	• *Settlement pattern is linear along communications corridors.* • *Linear tree and woodland cover associated with roads and railway lines.* • *Hedgerows field boundaries in varying condition.* • *Varied field size and field pattern along the corridor.* • *Varying scales of commercial development is present along the corridor.* • *The port of Goole is a major settlement in the East Riding located in this corridor.* • *Horticultural development is a feature of the corridor north east of Goole.* • *Railway lines and pylons are present.* • *Views of land mark structures e.g. Howden Minster and Boothferry Bridge and Goole Docks".*
Landscape Character Type 9 Drained, Open Farmland	• *"Low lying flat intensively farmed arable landscape.* • *Sparse settlement concentrated along the river corridor.* • *Scattered farmsteads and villages.* • *Windmill towers are visible in several villages on the south bank of the River Ouse.* • *Open large scale landscape with very few trees and woodland.* • *Generally large fields south of the river.* • *Combination of fragmented hedgerow and ditch field boundaries.* • *Long linear field pattern unique to Goole Fields reflects past farming method.* • *Extensive views across the flat open landscape."*
• **Doncaster Landscape Character Assessment**	
G2 – Thorne and Hatfield Peat Moorlands	• *"Large scale, open, flat and low-lying.* • *Areas of dark peat exposed on Thorne and Hatfield Moors where there has been former peat extraction along with regenerating heathland.* • *Empty and remote feeling landscape on the Moors.* • *Moors surrounded by area of scrubby woodland and a blocks of more mature deciduous trees which restrict views from the landscape beyond.* • *Limited access with no roads and few public footpaths onto the Moors.* • *Areas beyond the Moors are mainly arable farming with turf grown as a crop in some fields and occasional pasture.* • *Large geometric fields in a regular grid pattern bounded by straight ditches and occasional hedges and mature trees.* • *Scattered farmsteads surrounded by large sheds and*

Landscape Character Types and Landscape Character Areas	Key characteristics (summarised from the LCAs)
	shelterbelt trees. • *Single built up area in the north west of the LCA at Thorne and Moorends.* • *Intrusive motorways, straight roads and a railway line on elevated embankments and a canal cut across the landscape beyond the Moors."*
F2 – Owston to Sykehouse Settled Clay Farmlands	• *"Flat low lying landform.* • *Geology of silts and clays underlain by Sherwood sandstone.* • *Small scale arable and pasture fields including hay meadows.* • *Thick field boundary hedges with frequent mature hedgerow trees.* • *Some medium to large arable fields with fragmented hedges.* • *Network of water-filled drains.* • *Occasional small deciduous woodlands with larger and more frequent woodlands in the south west.* • *Compact historic settlements and many scattered farmsteads.* • *Historic network of lanes with sharp corners and roadside ditches.* • *Rail corridor cuts through the area with manned and unmanned gated crossings.* • *River Don and straight New Junction Canal with flood control embankments.* • *Occasional windmills and moated properties.* • *Network of green lanes and public rights of way."*

1.1.7. It should be noted that the LCTs at a county level and LCAs at a district level (North Yorkshire and Selby District) overlap. Whilst this appendix outlines both the county and district level assessments covering the Selby District, the assessment focused on the more recent county level assessment (North Yorkshire and York Landscape Characterisation, 2011). LCTs and Landscape Character Areas (LCAs) relating to East Riding of Yorkshire and Doncaster Metropolitan Borough Councils were also considered to ensure the entire Study Area was covered, outlined in further detail below:

Selby District

1.1.8. The Local LCAs which covers the Site includes the Camblesforth Lowlands and Wharfe Ouse River Corridor referred to in the Landscape Assessment of Selby District. The former LCA which covers the Proposed Scheme and the western end of the Gas Pipeline Area is described as a "flat, semi-enclosed arable farmland with frequent lines of hedgerow trees, and patches of semi-natural scrub".

1.1.9. It is an area of: “scattered small broadleaf and mixed woodland plantations and shelterbelts” with a sparse settlement pattern.”

1.1.10. The Wharfe Ouse River Corridor LCA which covers the eastern end of the Pipeline Study Area is described as: “Open heavily drained arable farmland with occasional mixed farmland”.

1.1.11. Riverine characteristics are more prevalent with “important areas of wetland, diverse marshy grasslands and unimproved neutral grassland”, high grassy flood embankments” isolating the river from its surroundings and “strategically sited historic villages”.

1.1.12. For both LCAs, Drax Power Station is a visually prominent influence.

East Riding of Yorkshire Council

1.1.13. The eastern part of the Study Area falls within East Riding of Yorkshire Landscape Character Assessment (Carl Bro, 2005) and is covered by five LCTs. Each LCT is divided into a number of LCAs and those which fall within the Study Area are summarised below):

- River Corridors LCT (4A Derwent Valley – Barmby on the Marsh to Pocklington Canal Reach , 4B River Ouse Corridor, Barmby on the Marsh to M62 bridge, 4C River Ouse Corridor Howden Dyke to Trent Reach and 4D River Aire Corridor).
- Open Farmland (5A Howden to Bubwith Farmland and 5B West of Holme on Spalding Moor Farmland)
- Foulness Open Farmland (7BEastrington Farmland).
- M62 Corridor Farmland (8A Howden to Gilberdyke and 8C M62 Corridor Hook to Pollington).
- Drained Open Farmland (9A Thorne Moors, 9B Goole Fields, 9C Twin Rivers Farmland and 9D Blacktoft and Laxton Farmland).

Doncaster Metropolitan Borough Council

1.1.14. The southern part of the study area falls within Doncaster’s administrative area. The Settled Farmlands and Peat Moorlands LCTs lie within the Study Area referred to in the Doncaster Landscape Character Assessment.

1.1.15. The Settled Farmlands LCT is divided into two LCAs of which F2 Owston to Sykehouse Settled Clay Farmlands is relevant to the Study Area. Key characteristics of the LCA include its: “flat, low lying landform”, “network of water filled drains”, small, medium to large arable and pasture fields with thick field boundary hedges and “a network of green lanes and public rights of way”.

1.1.16. To the east lies the Peat Moorlands and LCA Thorne and Hatfield Peat Moorlands (G2). This LCA is “large scale, open, flat and low lying”, evokes an “empty and remote feeling” and is surrounded by areas of “scrubby woodland and blocks of more mature deciduous trees which restrict views from the landscape beyond”.

1.1.17. The edge of Moorends lies within the Study Area.

Landscape Features

Vegetation cover

1.1.18. The study area is characterised by small woodland blocks with intermittent hedgerow and hedgerow trees along the majority of routes. Vegetation is often found along the main arterial routes. Larger areas of tree planting are also associated with historic estates.

1.1.19. Vegetation around the edge of the Existing Drax Power Station Complex includes numerous belts of mixed woodland many of which have been implemented as part of previous conditions and legal obligations including planting associated with the Skylark Reserve. The main blocks of woodland are concentrated to the northwest between Barlow and the Power Station, along either side of the A645 to the southwest, south and south east as well as along smaller lanes to the east including Carr Lane and Wren Hall Lane. There is also a strong belt of woodland running on either side of a disused railway line which runs to the east of the Power Station and north of Drax village some of which is covered under a Tree Preservation Order (TPO), detailed further in paragraphs below.

1.1.20. Further site specific information is covered in the following paragraphs.

Topography and drainage

1.1.21. The topography within the study area is relatively flat lying between 5 m and 15 m AOD refer to Figure 10.11.2. There are small isolated pockets of high ground to the northwest, north east and south west including Hambleton Hough (approximately 40 m AOD) and Brayton Barff (55 m AOD) to the northwest and High Eggborough and Great Heck to the south west, 15 m respectively. In specific locations land has been raised as a form of flood defence. Barlow Mound, to the west of Drax Power Station is a prominent local landmark and is approximately 300 m in height, built in the 1970s using residue material from the power station.

1.1.22. Widespread evidence of drainage is prevalent throughout the Study Area. The River Aire runs to the south of the Site through the centre of the Study Area. To the north of Airmyn and east of the Site it joins the River Ouse which flows in a northwest/south east direction through Selby. The River Derwent feeds into the River Ouse north of Barmby on the Marsh. Other smaller tributaries, drains and ditches feed into these rivers.

1.1.23. Canals including the Aire and Calder Navigation and New Junction Canal, drains (Swinefleet Warping Drain), ditches, dykes and smaller watercourses including the River Went criss cross the landscape. Such features often form field boundaries and are prominent within the landscape alongside bridges and pumping stations. Isolated ponds are noticeable particularly within the centre of the Study Area.

Settlements

1.1.24. The study area is characterised by small to medium sized settlements and isolated residential properties and farmsteads. Settlements close to the Existing Drax Power Station Complex and Site include:

- Drax (south east of the Existing Drax Power Station Complex).

- Camblesforth (south / south west of the Existing Drax Power Station Complex).
- Carlton (south / south west of the Existing Drax Power Station Complex).
- Newlands, Rawcliffe, Snaith, West Cowick, East Cowick and Moorends (south of the Existing Drax Power Station Complex).
- Barlow (north west of the Existing Drax Power Station Complex).
- Hemingbrough, Cliffe and Long Drax (north / north east of the Existing Drax Power Station Complex).
- Barmby on the Marsh, Asselby and Knedlington (north east of the Existing Drax Power Station Complex).
- Little Airmyn and Airmyn (east of the Existing Drax Power Station Complex).
- Howden (east of the Existing Drax Power Station Complex).

1.1.25. There are a number of smaller settlements scattered throughout the Study Area and the larger urban areas of Selby which lies to the northwest and Goole to the east are located within the Study Area.

Transport network

1.1.26. A number of motorways and A roads connect the larger settlements within and edging the study area. The M62 motorway lies approximately 3 km to the south of the Proposed Scheme and runs in an east/west direction from Goole to Knottingley (which lies outside the study area). The A19 runs north/south within the western part of the study area and connects Selby to Doncaster further south. The A645 runs to the north of the M62 and connects Snaith to Knottingley. It links with the A1014 which runs from East Cowick to Selby in the north. To the east, the A63 links Selby to Howden and the A614 connects with Goole running through Howden to Holme on Spalding Moor outside of the Study Area to the north east. A number of minor roads and tracks link smaller settlements, farmsteads and isolated properties within the study area.

1.1.27. Several railway lines crisscross the study area connecting Selby with Leeds, York, Goole and Hull. One line runs north/south from Doncaster to Selby between Drax and Eggborough power station and a spur line veers west to Leeds.

1.1.28. A number of Public Rights of Way (PRoWs) are located within the study area and either link the settlements or run alongside the watercourses and canals. Several PRoWs run in close proximity to the Existing Drax Power Station Complex linking Barlow, Camblesforth, Carlton, Drax and Long Drax. PRoWs which run in close proximity to the Existing Drax Power Station Complex and which may be affected by the Proposed Scheme include the following (Figure 3.1c):

- PRoW 35.47/11/1 and 35.6/11/1 lie to the west of the Existing Drax Power Station Complex.
- PRoW 35.6/10/1 and 35.6/12/1 lie to the north west of the Existing Drax Power Station.
- PRoW 35.47/6/1 lies to the north and run through the northern edge of Development Parcel B.
- PRoW 35.47/1/1 to the north east of the Existing Drax Power Station Complex and crossing Development Parcel A.
- PRoW 35.47/4/1, 35.47/5/1, 35.47/9/1 and 35.49/2/1 which cross the study area and Gas Pipeline.

1.1.29. The long distance Trans Pennine Trail runs through the study area. It forms two routes from Selby to the north of the study area and either follows the River Ouse to the east of the Existing Drax Power Station Complex, or south where it follows Burn Airfield before running along the banks of the River Aire, and heading southwards across the study area and along New Junction Canal.

1.1.30. Two National Cycle Routes cut across the study area following a similar course to the Trans Pennine Trail. Route 62 runs to the west of the Existing Drax Power Station Complex in a roughly north south direction whilst Route 65 runs through Selby to Hull along the River Ouse in a roughly east west direction refer to Figure 10.11.3.

Infrastructure

Power stations, pylons and wind farms are prominent features within the landscape particularly to the south west and south east including Eggborough power station, Rusholme Wind Farm to the east of the Existing Drax Power Station Complex and two further wind farms close to Goole Fields and Balkholme Common.

The Site and Its Immediate Setting

1.1.31. The full extent of the Proposed Scheme and associated Development Parcels are shown in Figure 1.3 and is described in Chapter 3. The following describes of the Site in terms of its landscape character and visual amenity based on the Development Parcels:

The Existing Drax Power Station Complex And Immediate Surroundings:

A. This development parcel consists of a linear arable field edged by a ditch to the north, south and west. A native species rich hedgerow runs to the east of the field whilst another unmanaged hedgerow runs to the west with occasional hedgerow trees. A broadleaved woodland forms the southern boundary of Development Parcel A edging Carr Lane. The woodland links visually within a group of semi mature trees to the south. Field boundaries form a strong visual screen to the development parcel especially during summer months. A PRoW runs across the northern corner of the development parcel which would be diverted to accommodate the CCS if is taken forward in the future.

B. This parcel lies north of the northern entranceway into the Site and includes a mature deciduous plantation on the corner of New Road and the northern entranceway into the Site (formerly New Road landfill site and referred to as North Station Wood) and a mixed plantation on steep banks forming part of the power station's northern boundary. Both woodland plantations are strong landscape features and act as visual screen for receptors in close proximity to the Site. The remainder of this parcel is a mix of scrub, improved grassland used for grazing and arable land. The latter lies outside the Existing Drax Power Station Complex's boundaries. Area B includes a PRoW to its northern edge which would be diverted to accommodate landscaping if the CCS is taken forward in the future.

C. Parcel C sits within the Existing Drax Power Station Complex and includes five buildings, a car park with areas of hardstanding and groups of ornamental shrubs and trees. The northern part of this parcel is a wood yard whilst land to the east includes a pond surrounded by dense scrub and woodland. An unmanaged hedgerow runs along the southern edge of this parcel. As referred to in Chapter 9

(Biodiversity) stands of Himalayan Balsam Impatiens glandulifera are present and ornamental Cotoneaster Cotoneaster sp.

D. This parcel includes New Road. The planting alongside the road and to the east of the Existing Drax Power Station Complex is a mix of small deciduous trees, hedgerows and improved grassland. The quality and condition of such planting is mixed.

E. Semi mature broadleaved woodland, scrub and semi improved grassland is prevalent within this parcel which is used for grazing.

F. This area includes land to the west of the cooling towers and comprises stores, contractor compounds and car parking. Vegetation is a mix of formal planting around car parks, roads and buildings consisting of mature and semi mature deciduous trees and a large area of scrub which lies between the switchgear and security fencing running along the edge of New Road.

G. Land surrounding and adjacent to Drax jetty adjacent to the River Ouse is dominated by improved grassland with scattered trees and woodland. Deciduous woodland along Redhouse Lane screens the jetty from view. As referred to in Chapter 9 (Biodiversity) stands of Himalayan Balsam Impatiens glandulifera are present.

H. This area is largely hardstanding with surfaces of concrete/gravel used for car parking and storage including fuel oil, and edged by security fencing with CCTV cameras. Along the A645 and the southern entrance into the Site (used by visitors and staff) landscaping is a mix of improved grassland, native deciduous hedgerows and trees to the rear and along the bank. Internally landscaping edging the road access and hardstanding is a mix of amenity grassland with small areas of shrubs and isolated or small groups of trees.

1.1.32. The topography of the Existing Drax Power Station Complex is varied. Land close to the southern entranceway and forming part of Development Parcel H sits at a lower level than the A645 whilst land to the north of the northern entrance is raised, some areas formerly a disused tip. An extensive coal storage area partially screens land to the south west whilst ash mounds partially screen land to the northwest.

The Gas Pipeline

1.1.33. The Gas Pipeline route is approximately 3 km in length and crosses agricultural land to the east of the Existing Drax Power Station Complex. The land within the Pipeline Construction Area is 25.4 ha and the land within the Pipeline Operational Area is 2.4 ha.

1.1.34. The Gas Pipeline is approximately 3 km in length and crosses agricultural land to the east of the Existing Drax Power Station Complex (Development Parcel I, J, and L). The pipeline begins at NTS feeder gas pipeline, Feeder 29 south of the River Ouse and will run into AGI including a Pig Trap Launching Station (PTLS) and a Minimum Offtake Connection (MOC) owned by Drax and National Grid Grid respectively. The AGI will be located to the south of Rusholme Lane west of Rusholme Grange, near Rusholme Wind Farm and an electricity substation. A new access route into the AGI will be created. The Gas Pipeline will then run across Main Road and south of a disused railway line, south of Carr Lane before crossing Wren Hall Lane and connecting to the GRF east of New Road which is edged by a native deciduous hedgerow.

1.1.35. An additional area is located on Rusholme Lane (Rusholme Lane Area) to accommodate a potential passing place for traffic during construction of the Gas Pipeline. This is considered to be part of the Pipeline Area.

1.1.36. A landscape and visual survey was conducted from the roadside and information was drawn from the Preliminary Ecological Appraisal as well as aerial imagery to determine the location of key landscape features likely to be affected by the Gas Pipeline.

1.1.37. The Pipeline Construction Area is predominantly arable with grazing pasture, semi improved grassland and scattered trees. Fields across which the Gas Pipeline crosses are large and open bounded either by fences or ditches. Pylon towers and associated lines cut across the south eastern edge of the Development Parcel running in a north east south west direction.

1.1.38. The Gas Pipeline runs north of Woodcock Wood and close to a fragmented historic hedgerow (protected under the Hedgerows Regulations 1997, Section 6.5) which lies south of Carr Lane, north of the proposed GRF and is located on either side of Wren Hall Lane (Figure 8.2). Based on existing surveys the majority of field boundaries are ditches and only small sections of hedgerow will be affected.

1.1.39. The Gas Pipeline will also run south of an area of woodland (W2) consisting of oak, sycamore, ash, hawthorn and willow which edges part of the disused railway embankment and is protected under No 7 / 1983 Tree Preservation Order (TPO). Some other trees forming existing or former field boundaries may be lost subject to the micrositing of the route.

1.1.40. The Gas Pipeline runs close to a number of properties including Wren Hall off Hall Lane, properties off Main Road (Baxter Hall, Woodlands, Poultry House, Briarden and Read School), Scurff Hall off Rusholme Lane, Rusholme Hall and Diamond Cottage. A small parcel of land allocated to accommodate road widening lies opposite Scurff Cottages. A number of PRoWs also cross the Gas Pipeline.

Value of the Landscape Resource

Local landscape designations

1.1.41. Whilst there are no national statutory designations within the study area relating to landscape value there are five landscapes which are designated as Locally Important Landscape Areas (ILAs) or Areas of Special Landscape Value (ASLV) which fall within Selby District Council, East Riding of Yorkshire and Doncaster Metropolitan Borough Council and include:

- Hambleton Hough (SDC) to the north west of the Proposed Scheme.
- Brayton Barff (SDC) to the north west of the Proposed Scheme.
- Lower Derwent Valley (ERoY) to the north east of the Proposed Scheme.
- Humberhead Levels (DMBC) to the south of the Proposed Scheme.
- Thorne Moors (DMBC) to the south of the Proposed Scheme.

1.1.42. Refer to Figure 10.11.4 and Figure 10.11.5

1.1.43. The designations of ILAs for Selby have informed landscape appraisals - village assessments6 (Core Strategy Background Paper, No 10 Landscape Appraisals, Appendix 1, January 2011) which have provided evidence to support the settlement hierarchy within the adopted Core Strategy. The village appraisal for Brayton states: *"regard needs to be given to development which could be detrimental to the open character and amenity of Brayton Barff and the character and appearance of the associated Locally Important Landscape Area".*

1.1.44. Whilst the landscape appraisal for Hambleton states: *"Hambleton Hough and the Locally Important Landscape Area associated within it provide a significantly locally important site with the landscape positively contributing to the character and appearance of the area in an otherwise flat open arable landscape."*

1.1.45. The designation of locally Important Landscape Areas (ILAs) within East Riding of Yorkshire has been directly influenced by LPA's Landscape Character Assessment. Local Plan Policy ENV2 prescribes how proposals should protect and enhance existing landscape character in the designated areas. The boundaries of the ILAs were reviewed in July 20137 and key valued attributes identified as detailed in Table 10.4.3 below.

1.1.46. This table also includes ASLVs within Doncaster Metropolitan Borough Council referred to within the Doncaster Landscape Character Assessment and Capacity Study, 2007and Doncaster Unitary Development Plan, adopted July 19988. The Unitary Plan states under Policy ENV 17 that within ASLV the protection and enhancement of the landscape will be the overriding factor in considering proposals for development. This policy has not been replaced by the Core Strategy and will remain in force until subsequent policies have also been formally adopted.

Table 10.4.3 Important Local Landscape Areas in East Riding of Yorkshire and Areas of Special Landscape Value in Doncaster Metropolitan Borough

Lower Derwent Valley (ERoY)	Humberhead Levels (DMBC)	Thorne Moors (DMBC)
Low lying flat floodplain	Additional and uniquely pastoral farming area bounded by the Rivers Went and Don	Thorne Moors, part of the Thorne Crowle and Goole Moors SSSI
Combination of grassland pasture and meadow that are subject to seasonal flooding	A remnant of a once extensive area of poorly drained lowland in Yorkshire and Humberside known as the Humberhead Levels.	Expanse of lowland raised mire modified by commercial peat extraction
Manmade embankments formed as a result of dredging in the twentieth century	An extremely important area in terms of wildlife and landscape with its wild flower-rich hay meadows, intricate network of	Low lying, open and flat landscape.

[6] Selby District Council, January 2011, Core Strategy Background Paper, No 10 Landscape Appraisals, Appendix 1, landscape appraisals - village assessments
[7] East Riding of Yorkshire Council, July 2013, Important Landscape Areas Boundary Refinement
[8] Doncaster Metropolitan Borough Council, Doncaster Unitary Development Plan, Adopted July 1998.

Lower Derwent Valley (ERoY)	Humberhead Levels (DMBC)	Thorne Moors (DMBC)
	ancient hedgerows and associated trees, green lanes, shallow dykes and other drainage features and associated aquatic habitats.	
Riparian woodland and trees in the corridor		This landscape forms part of the once inundated Humberhead levels, an area adapted to flooding until artificial drainage was introduced from 1626.
Areas of species rich alluvial flood meadow habitat		
Small areas of organic arrangement of medium sized fields combined with more regular boundaries of enclosed fields		
Intimate isolated corridor landscape that is a marked contrast from surrounding intensively farmed land		

Historic landscape design

1.1.47. Whilst the Site has a no local landscape designations relating to any value, the original design of the power station and associated landscape is important in understanding the original ethos behind landscape and mitigation. A number of historic planning applications and consents were reviewed and are summarised below:

Original consent and reservations:

1.1.48. Proposals to construct Drax Power Station were approved in a letter from County Council of West Riding of Yorkshire dated 6th April 1966 (and referred to as 1978 Clear Matter Design). The approval was subject to a number of reservations, summarised below:

- The gas turbine exhausts should be enclosed in a single flue rather than remaining as six flues.
- Adequate provision should be provided for the parking of buses if required to carry employees to and from the power station.
- Overhead lines approaching the station should be simplified to reduce the clutter of angle towers in the vicinity which detract from the appearance of the station.
- Adequate screening should be approved to the east of the 400kv switchgear compound, between the compound and Drax village, if necessary by off site tree planting.

- Further off site tree planting should be approved by agreement with the County Council and East Riding County Council, including work in connection with the M62 motorway extension.

Design of existing structures

1.1.49. The Joint Report of the Executive Architects and Landscape Consultant, (A E Weddle) which accompanied the 1966 letter of approval stated that the layout of buildings and structures was largely influenced by engineering requirements which resulted in:

- The circulating water pump houses and turbine house adjacent to each other and near to two groups of cooling towers.
- The 400 kv switchgear compound sited about the centre line of the turbine house.
- A physical link between the administration and control block and the turbine house.

1.1.50. The report noted that the complex "will be visible over a vast area", and this, alongside nearby Eggborough and Ferrybridge "will create an even greater impact on the countryside".

1.1.51. To respond to these issues careful consideration was given to the aesthetics of the design; the setting and treatment of the buildings and structures to achieve a symmetry and the need to minimise visual coalescence. The "setting and treatment of the buildings and structures are of utmost importance" and in the grouping of the cooling towers careful consideration was "given to the problem of visual coalescence, when from certain views towers can appear to merge and form an unbroken bulk of concrete".

1.1.52. Colour and the use of specific materials were key. Building materials included prefabricated units for cladding in a light coloured concentre with a smooth shuttered finish for the upper part of the main buildings and towers "giving a powerful yet restrained character to the whole scheme" and as light as possible to equate to the sky and reduce their visual impact.

1.1.53. For the turbine house and louvre areas a contrasting colour of a dark blue / grey was used with the upper part of the boiler house in a light grey and the base of the boiler and turbine house in a warm brickwork colour with vertical patent glazing and louvres as well as picture windows at a low level. Other buildings are a mix of warm brickwork, concrete and vertical patent glazing.

Landscape proposals

1.1.54. In terms of landscaping the overarching aims of the landscape consultant were to:

- Design a group of structures, clearly visible and acceptable in the landscape.
- Introduce more tree planting into the area to reduce the number of completely open views from main roads and villages.
- Seek agreement for siting of minor ancillary structures and to provide some screening close to the station and leave only the major structures in full view.

1.1.55. Approximately 200 semi mature trees were transplanted and further planting introduced within and around the perimeter of the existing Power Station. CEGB's Landscape Consultant's Report, 1979 focuses action on off site and on site planting recognising that mitigation close to the power station was limited by the wish to avoid taking excessive areas of valuable farmland and the time interval by which screening became effective.

1.1.56. The report referred to major remodelling for the ash disposal site at Burn airfield (which did not materialise utilising lead east of Barlow instead) and identified for off site planting opportunities to introduce:

- Major screening to the south west of the power station by retaining and planting the railway embankment, introducing roadside planting along the new Cambleforth bypass and on Parish land near the village.
- Planting to the east around Drax school playing fields and to the northern end of the station and on a small mound, graded off to help screen construction works from Drax Abbey Farm and Long Drax. Additional planting was introduced along New Road.

1.1.57. Other small areas of off site planting were introduced within the defined zone of visual influence to increase tree cover and enable partial screening from as many viewpoints as possible. The landscape architects sought to avoid impacting on farmland by linking "two separate existing blocks of planting with a narrow strip of planting or even a single row of trees, giving the illusion of extensive woodland when viewed across this flat landscape". This also helped unite minor elements in the landscape and cumulatively increased the overall size of woodland, resulting in a scale of planting compatible with new developments within the area.

1.1.58. In terms of on site landscaping, proposals focused on the grouping, number and scale of objects, ground surfaces and amenity areas and planting. Minor items which were small or discordant scale were grouped to overcome concerns that additional clutter" could "mar the clarity" of the scheme's design, ground shapes were bold and large and paving and margins were at an appropriate scale – internal roads were edged by flush kerbs with a textured finish. There was an acceptance that there would be issues associated with proximity of planting close to equipment and restricted growing conditions associated with dust, glare and turbulence.

1.1.59. The TCP Committee 1966 stated that off site trees would remain the property of the County Council, however the Central Electricity Generating Board investment in trees would be protected if a TPO was made covering the trees. It is understood that specific groups and individual trees including the disused railway line to the east are covered by a TPO refer to Figure 10.3.

- A subsequent Landscape Management Report, July 1987 / revised 1990 divided the on and off site planting into a number of management zones, overarching landscape design objectives were:
- To achieve the maximum benefits of screening from critical viewpoints.
- To harmonise and integrate the large scale man made constructional elements with the small scale rural landscape.
- To establish a new landscape framework of small woodlands of indigenous species and productive farmland, where possible by improving derelict land.
- Where practicable, to encourage agricultural use of land within the power station ownership.
- Create an attractive working environment within the confines of the station bearing in mind operational requirements and limitations.
- Provide a landscape structure capable of incorporating continuing development of ancillary industry.

- To use ecological principles to create and maintain a mosaic of diverse habitats.

Zones within the site focused on achieving high amenity standards, reducing visual clutter of small elements around the power station's perimeter in order to create a neat and tidy impression and sought to ensure the margins integrated with the surroundings. It was acknowledged in the report that some areas of the design policy were incomplete due to land acquisition issues and pending site clearance.

Heritage assets

1.1.60. There are no Registered Parks and Gardens within the study area.

1.1.61. There are a number of Scheduled Monuments, Listed Buildings and Conservation Areas within the 10 km study area (Figure 10.1). The LVIA considered that for such heritage assets an inner search area of 3 km was appropriate. It should be noted that the LVIA does not assess the impacts of the Proposed Scheme on heritage assets and the information provided below gives only an understanding of the heritage context within which the Proposed Scheme sits.

1.1.62. Out of 19 Scheduled Monuments identified within the 10 km Study Area, the LVIA considered that the closest Scheduled Monuments within a 3 km radius of the Proposed Scheme include (refer to Figure10.11.3):

- Drax Augustinian Priory (1016857) north of the Power Station Site.
- Castle Hill moated site south of St Peter and St Paul's Church (1017455) south of Gas Pipeline Route A and Drax Village.
- Scurff Hall moated site (1017485) south Gas Pipeline Route A.
- Medieval settlement and early post medieval garden earthwork around Barlow Hall (1018403) northwest of the Drax Power Station and north of Barlow.

1.1.63. There are 11 Grade 1, 17 Grade II* and 440 Grade II Listed Buildings which lie within the 10 km Study Area, and within 3 km of the Study Area there are four Grade I, 41 Grade II and 1 Grade II* Listed Buildings within 3. Grade I Listed Buildings include:

- St Peter and St Paul Church (1148397) Drax.
- Church of St Mary the Virgin, (1148462) Hemingborough.
- Camblesforth Hall (1173983), Camblesforth.
- Carlton Towers (1295955), Carlton.

1.1.64. Within the 3 km Study Area there are also a number of Listed Buildings within Hemminborough, Barmby on the Marsh, Asselby, Airmyn and Carlton with a small number within Cambleforth and Barlow.

1.1.65. Of the nine Conservation Areas which lie within the 10 km Study area, two Conservation Areas sit within 3 km of the Proposed Scheme, these include:

- Hemingbrough to the north of the Power Station Site.
- Airmyn to the east of the Gas Pipeline Area.

1.1.66. Rawcliffe Conservation Area sits just outside of the 3 km radius to the Site and south of the gas pipeline. Whilst it has a Conservation Area Appraisal9 no reference is made in the document to important views or vistas.

Biodiversity assets

1.1.67. Eight designated sites lie within 10 km of the Site including SAC, SPA, SSSIs and Ramsar. Part of the disused railway line to the east of the Power Station Site and north of the Gas Pipeline Route A was formerly a Site of Importance for Nature Conservation refer to Figure 10.11.4.

1.1.68. In terms of woodland There are two areas of ancient woodlands within the 10 km Study Area, These include Staynor Wood to the north west of the Site and Kerrick Spring Wood to the south east. There are no aref ancient woodland within 3 km of the Site. A number of other priority habitats lie within 3 km of the Site including some deciduous woodland and traditional orchards.

1.1.69. Alongside and close to the disused railway line which runs to the east of the Site are a number of isolated trees (T1 to T8) consisting of ash, sycamore and oak plus two woodlands (W1 and 2) of oak, sycamore, ash, hawthorn and willow which are protected under a Tree Preservation Order (Figure 10.11.5 and Figure 3.1a).

Table 10.4.4 Factors relating to landscape value based on the Existing Drax Power Station Complex and the Gas Pipeline

Factor	Study Area	Existing Drax Power Station Complex	Gas Pipeline Route
Landscape quality (condition)	The landscape of the study area is largely low lying, open agricultural land interrupted by transport routes (Motorways, A roads, Rail and Canal network)	The Existing Drax Power Station Complex's land-use relates to power production and agriculture and is typical of the immediate area and the wider Study Area	Agricultural land over which the route pass is well managed whilst quality of boundary features are mixed
Scenic Quality	The study area includes four areas which are designated on the basis of scenic quality (Locally Important Landscapes). The Study Area	The Existing Power Station Complex has no scenic qualities other than the current power station and associated facilities. It does have blocks of tree planting which screen car parking areas and front the edge of the Existing Power Station Complex and these serve a function in	Small lanes enclosed by hedgerow vegetation form a strong sense of rurality.

[9] East Riding of Yorkshire, 2010, Conservation Area Appraisal, Rawcliffe.

Factor	Study Area	Existing Drax Power Station Complex	Gas Pipeline Route
		partially screening low level local views.	
Rarity	The landscape of the study area is typical of the wider landscape context regionally	The Existing Power Station Complex contains no rare landscape elements or features however it does reflect a strong landscape structure as a consequence of Weddle's original design.	The Gas Pipeline routecontains a fragmented important hedgerow identified through the Hedgerow Regulations Act 1997. The Gas Pipeline runs south of an area of TPO'd woodland - W2 referred to under a 1983 TPO.
Representativeness	The Study Area does not contain any characteristics that are important examples	NA	NA
Conservation Interests	The Study Area contains a number of SSSI as well as international designations. In terms of heritage there are Scheduled Monuments, Listed Buildings and Conservation Areas.	The Existing Power Station Complex lies adjacent to Drax Augustininan Priory a Scheduled Monument. Within and immediately surrounding the Existing Drax Power Station Complex mitigation planting appears to be an example of a post-modern industrial landscape design. There are no other features of national or local value within the Existing Drax Power Station Complex.	A deleted SINC lies 100 m to the north of the Gas Pipeline Area. The Gas Pipeline lies in close proximity to four Scheduled Monuments and a number of Listed Buildings.
Recreation value	The landscape of the Study Area is of some recreational value, restricted mainly to the use of the	The Existing Drax Power Station Complex has no public access and its only element of value relates to the woodland plantation and tree belts	There are a number of PRoW which cross the pipeline route. The Trans Pennine Trail and National Cycle

Factor	Study Area	Existing Drax Power Station Complex	Gas Pipeline Route
	Trans Pennine Trail, NCR, PRoWs, waterways including canals and the River Aire, Ouse and users of Burn airfield.	screening within and edging the Site. There is a PRoW which runs along the northern boundary of the Existing Drax Power Station Complex.	Route 65 run roughly parallel with the Gas Pipeline route.
Perceptual aspects	The Study Area contains a number of areas which are considered tranquil and remote. Such areas are mainly concentrated to the north east and south.	The Existing Drax Power Station Complex is a dominant and imposing feature within the landscape. It has a coherent design; the massing and grouping of the buildings has been carefully considered	Along the Gas Pipeline route there is a strong contrast between views framed by hedgerow trees and wide open, direct views across to Drax Power Station over fields edged by ditches.
Overall landscape value	Medium The Study Area includes a number of areas designated locally for their landscape character and/or perceptual qualities / tranquillity whilst being heavily influenced by industrial developments and transport corridors.	The Existing Drax Power Station Complex is an area of previously developed land. Landscape features associated with woodland plantations, tree belts and hedgerows serve an important mitigation function in terms of Weddle's original design	The Gas Pipeline route cuts across large open farmland with ditches and occasional hedgerows. Whilst close to Drax Power Station this is a relatively tranquil area.

1.2 Existing Baseline – Visual amenity

1.2.1. The visual baseline establishes the area in which the Proposed Scheme may be visible, the different groups of people who may experience views of the Proposed Scheme, the places where they will be affected and the nature of the views and visual amenity at those points. Visual receptors are individuals and/ or defined groups of people who have the potential to be affected by a proposal.

1.2.2. Visual receptors, such as users of buildings, recreational spaces, footpaths and transport routes, have differing sensitivities to their visual environment. Generally, this is dependent upon their interest in the visual environment, their viewing opportunity and duration, and the context of the views.

1.2.3. In order to determine likely views of the Proposed Scheme, four Zones of Theoretical Visibility (ZTVs) were produced as described below.

ZTV and Preliminary Viewpoints

1.2.4. A GIS terrain model was generated from EA LiDAR (2 m resolution), OS Terrain 5 (resampled from 5 m to 2 m where LiDAR data is unavailable) and engineering drawings to produce ZTVs based on an agreed radius of 10 km and from an observer height of 1.6 m. The ZTVs assumed a number of fixed heights for the proposed structures within the footprint of the Existing Drax Power Station Complex and the Gas Pipeline Area. For comparison Table F4.5 illustrates some of the key structures associated with the Existing Drax Power Station Complex and the Power Station Site.

Table 10.4.5 Existing and proposed heights of some of the permanent structures

Existing heights of structures	Proposed height of permanent structures and AOD
259 m Main chimney	Up to 120 m to top of HRSG stack (126 m AOD
115 m Cooling towers	Up to 120 m to top of Bypass stack (126 m AOD)
74 m Boiler House	Up to 38 m to top of HRSG building (44 m AOD)
60 m Absorber Buildings	Up to 28 m to top of Combined Cycle Gas Turbine Generator (34 m)
31 m Turbine House	Up to 5 m to top of AGI including Pig Trap Launching Station and Minimum Offtake Connection (10 m AOD)
	Up to 10 m Gas Receiving Facility including the compressor building and associated stacks (16m AOD)
	Up to 10 m to of Battery Storage Facility (16 m AOD)
	Up to 16 m Gas Turbine Air Inlet Filter House (42 m)
	Up to 18 m Turbine Outage Building (up to two) (34 m)

* It should be noted that for a specific area identified on the ZTVs only OS Terrain 5 (bare earth) was available and this was resampled from 5 m to 2 m resolution. Screening within this area was not considered. In addition plumes from the cooling towers slightly distorted the LiDAR. In order to achieve a robust approach for the preliminary assessment it was assumed that the visual extent of the Proposed Scheme would cover the entire Study Area. On this basis a broad range of viewpoints were selected throughout the Study Area in discussions with the LPAs including one viewpoint (viewpoint 17) from a location not identified through the ZTVs.

1.2.5. Four ZTVs were produced (refer to Figure 10.6, 10.7, 10.8 and 10.9 respectively):

- One illustrating the visual extent of the Proposed Scheme (Unit X and Y) within the confines of the Existing Drax Power Station Complex.

- One demonstrating the extent of the MOC facility and PIG trap associated with the Above Ground Works within the Gas Pipeline Area which is proposed to be 5 m in height and at 10 m AOD.
- One illustrating the visual extent of the proposed battery storage facility at 10 m in height and 16 m AOD.
- One demonstrating the visual extent of the GRF including the Gas Compressor Building and at 16 m AOD.

1.2.6. The structures for the AGI and associated with the gas pipeline cover an area of 1800 m2.

1.2.7. Informed by the topography, a baseline review and ZTVs preliminary viewpoints were then identified throughout the Study Area. Sixteen preliminary viewpoints were proposed including two viewpoints (15 and 16) outside of the 10 km Study Area. These viewpoints were selected on the request of LPAs based their higher elevation, long distance views and proximity to heritage assets (Appendix 10.2). As part of the initial round of discussions other viewpoint locations were also suggested:

- Peatlands Way, Moorends and from within the housing estate (viewpoint 9c).
- Brayton Barff County Park (viewpoint 12c).
- Barff Lane (viewpoint 12d).
- Along the A19 (viewpoint 12e).
- Along the A1041 / Braunton Reserve (viewpoint 12f).

1.2.8. Fieldwork then reviewed the preliminary viewpoints, which were refined in discussions and with the agreement of the LPAs. Twenty representative autumn viewpoints were agreed (refer to Figure 10.11.1a to Figure 10.11.20a).

1.2.9. In addition, it was agreed with LPAs and the SoS that winter views should be taken from nine specific local to middle distance viewpoints and field verified visualisations / photomontages prepared for five viewpoints, most in close proximity of the Proposed Scheme as summarised in Table F4.6 below. These winter views (including one additional view, viewpoint 21) and field verified visualisations / photomontages demonstrate the “worst case scenario” in terms of visibility when deciduous trees and hedges are without leaves. Figures 10.11 for winter views and field verified visualisations / photomontages.

Table 10.4.6 Winter Views and Field Verified Visualisations / Photomontages

Winter views	Visualisations / Photomontages
Viewpoint 2 Loftsome Bridge	Viewpoint 3 Pear Tree Avenue
Viewpoint 3 Pear Tree Avenue	Viewpoint 5 Barmby on the Marsh
Viewpoint 4 Barrage close to Barmby on the Marsh	Viewpoint 6 PRoW along Landing Lane
Viewpoint 5 Barmby on the Marsh	Viewpoint 13 PRoW along Fish Balk Lane
Viewpoint 9 PRoW close to Drax village	Viewpoint 15 Brayton Barff Country Park
Viewpoint 10 Long Hedge Lane	
Viewpoint 14 PRoW near disused airfield	
Viewpoint 17 From Barlow	

Viewpoint 21 Additional viewpoint from Drax Golf Course (requested through the scoping opinion)	

Visual Receptors

1.2.10. The Existing Drax Power Station Complex consists of large industrial buildings edged by areas of offsite woodland plantation particularly to the north and northwest. Views of Drax Power Station are extensive and span beyond 30 km. The largest structures noticeable on the skyline include the chimney, northern and southern cooling towers, boiler and absorber house which form a large rectangular mass between the cooling towers and within more immediate local views and at a lower elevation the switchgear fronting New Road. Plumes from the cooling towers are a temporary but notable feature on the skyline.

1.2.11. Visibility within the Study Area is widespread as a result of the low landform and limiting intervening vegetation and built form. Visual receptors who may see the Proposed Scheme include:

Residents

1.2.12. Residents closest to Drax Power Station and the Proposed Scheme are residents of individual properties off Wren Hall Lane, Carr Lane, Pear Tree Avenue, Main Road, Rusholme Lane, Redhouse Lane and Brier Lane as well as residents within the settlements of Drax, Long Drax, Barlow, Cambleforth, Carlton, Newland, Little Airmyn, Airmyn, Barmby on the Marsh, Hemingbrough and Asselby, north of the River Ouse. Where there are open views, structures associated with the Existing Drax Power Station Complex are clearly visible and prominent.

1.2.13. Residents of parts of other settlements throughout the Study Area experience views of the Existing Drax Power Station Complex to varying degrees sometimes filtered through intervening vegetation or partially screened by built form. Refer to Appendix 6.2.10.2 which sets out the sensitivity of residential receptors.

Workers at Drax Power Station and workers to other premises

1.2.14. Workers at the power station will experience direct and partial views across the Existing Drax Power Station Complex to varying degrees sometimes filtered through intervening vegetation and / or partially screened by built form.

1.2.15. Workers to other premises will also to varying degrees experience views of the Existing Power Station Complex. Based on Appendix 6.2.10.3 the sensitivity of workers would be low.

Users of the PRoW Network, National Trails, Cycle Routes and other recreational facilities

1.2.16. Users of the PRoW, National Trails and Cycle Routes (refer to Figure 3.1c and 10.1) as well as leisure users such as Drax and Selby Golf Club, experience sequential views of the Existing Drax Power Station Complex to varying degrees throughout the Study Area. Within 1 km of the Proposed Scheme and where there are open views, structures associated with

the Existing Drax Power Station Complex are clearly visible and prominent. Refer to Appendix 6.2.10.2 which sets out the sensitivity of recreational receptors.

Users of transportation routes

1.2.17. Users of the main transport routes may gain sequential views towards the Existing Drax Power Station Complex to varying degrees dependant on intervening structures, screening vegetation, elevation and direction of travel. Views from the A19 (particularly between Burn and Eggborough south bound) and A1014 (between Selby and Camblesforth south bound and between Camblesforth and Carlton north bound) are of both Drax Power Station and Eggborough Power Station. Views are often broken by intervening vegetation. Similarly between intervening vegetation and the built form there are open views from the A63 to the east of the Existing Drax Power Station Complex (between Howden and Selby south and north bound).

1.2.18. There are also views of the Existing Drax Power Station Complex from the M62 and A645 to the south. Views are wide and expansive with the existing cooling towers, chimney and surrounding wind farms forming the most prominent features within the view. Views are often broken or restricted by screening vegetation along the road corridors as well as the built form.

1.2.19. There are a number of local roads in close proximity of the Existing Drax Power Station Complex which join the settlements. Generally views from these roads are sequential and ever changing. Views are often broken or restricted by screening vegetation and built form located along the road corridors. Where views are open, structures associated with the Existing Drax Power Station Complex are clearly visible, appearing prominent in close views of the Proposed Scheme.

1.2.20. Users of the railway lines including the east coast mainline experience sequential views of the Existing Drax Power Station Complex, albeit intermittently screened by trackside vegetation. This is seen in the context of a landscape containing other large scale structures such as power stations, overhead power lines, highway infrastructure and wind farms.

1.2.21. Within the study area there are numerous waterways used for leisure purposes. Generally views from these waterways are sequential and ever changing, often limited by intervening vegetation and landform. Where views do exist it is anticipated that views of the Existing Drax Power Station Complex and infrastructure are prominent closer to the Site, whilst views elsewhere are seen in context with other industrial structures including Eggborough Power Station. Refer to Appendix 10.2 which sets out the sensitivity of users of transport routes.

Agreed Representative Viewpoints

1.2.22. Further details of the nature of the agreed representative 20 autumn viewpoints, receptor types, existing and predicted view and the receptor's sensitivity are referred to in Appendix 6.2.10.2.

1.2.23. The location of the agreed representative autumn viewpoints is illustrated in Viewpoint Location Plan (Figure 10.10) and representative viewpoints are covered in Figures 10.11.1 to 10.11.21. Figures followed by a) illustrate the autumn view, b) winter views where agreed

with the LPAs and on the request of PINs, c) the existing view which is field verified and d) the field verified photomontages. Nine winter viewpoints were requested and five field verified photomontages.

1.2.24. The representative viewpoints were selected based on publically accessible locations. The identification of views was carried out from external spaces within the public domain, and not from buildings or private spaces. However, where notable views from private dwellings are possible these were recorded from the nearest publicly accessible viewpoints and so the visual impacts from these receptors are estimated.

1.2.25. Consideration was given to the experience of visual receptors from this viewpoint and receptors likely to experience a similar view close by. It should be noted that the agreed representative viewpoints are not intended to be an exhaustive or fully comprehensive catalogue of views of the Site, but rather they provide a representative sample for the purposes of the assessment and used to give a clear picture of the anticipated effects on all potential affected receptors (settlements, groups of receptors and individual isolated receptors) throughout the Study Area, with visualisations / photomontages from selected key viewpoints.

1.2.26. The agreed representative autumn views were taken on 6 November 2017 and winter views on 13 and 14 December 2017. For both sets of viewpoints a Canon EOS 600D digital camera was used with an 18-55 mm zoom lens set to a fixed focal length of 55 mm and at 1.6m above ground level On both occasions was fair, with partial cloud cover and mixed visibility. The viewpoints assessment photographs show the Site in wider context and were based on a series of photostitched images.

1.2.27. Field verified views were taken to prepare the visualisations / photomontages using a Nikon D3200 SLR Camera with a Nikon DX AF-S NIKKOR 35mm 1:1.8G lens, a Manafrotto 190go tripod and MHXPRO-3W X-PRO 3-way head with a Trimble Juno Series GPS Reader. .Further details of the methodology are outlined in Appendix 6.2.10.3.

1.2.28. The Canon EOS 600 D with a 1.6 crop factor x 55mm is 52.5 mm equivalent focal length whilst the Nikon D3200 SLR and lens detailed above has a 1.5 crop factor x 35mm = 52.5 mm equivalent focal length.

1.3 Summary of Visual Baseline

1.3.1. The scale of the Proposed Scheme is similar or smaller than the existing developments found within the study area including the Existing Drax Power Station Complex, Eggborough Power Station and several wind farms. These are large scale structures and recognisable features within the local landscape. Due to the generally open nature of views and low topography of the Study Area views of the Existing Drax Power Station Complex are common place.

1.3.2. It should be noted however that unlike the developments outlined above, the Proposed Scheme would change the form of the Existing Drax Power Station Complex but not its nature. Receptors would experience a change in the form of the industrial development they see (of the Power Station Site) as well as an introduction of an industrial element within a largely open, rural view associated with AGI forming part of the Gas Pipeline.

1.3.3. In many areas, due to a combination of the flat landscape and size, such structures are viewed against the skyline which increases their visibility.

1.3.4. The screening and limiting of views of the Existing Drax Power Station Complex is generally only possible where screening elements are located close to the receptor.

1.3.5. The extent of views available to receptors range from those in close proximity (local views) to long distance views. A number of receptors are located within villages and along roads that are located in relative close proximity to the Site. Views of the Proposed Scheme tend to be from the edges of settlements or along roads and routeways where there is limited intervening vegetation and structures restricting views.

1.3.6. The LVIA includes a comprehensive visual assessment describing and assessing the effects from all the potentially affected visual receptors (settlements, groups of receptors and individual isolated receptors) within the study area. This is illustrated through photographs from a series of agreed representative viewpoints to give a clear picture of the anticipated effects, with visualisations / photomontages from selected key viewpoints.