

The Progress Power (Gas Fired Power Station) Order

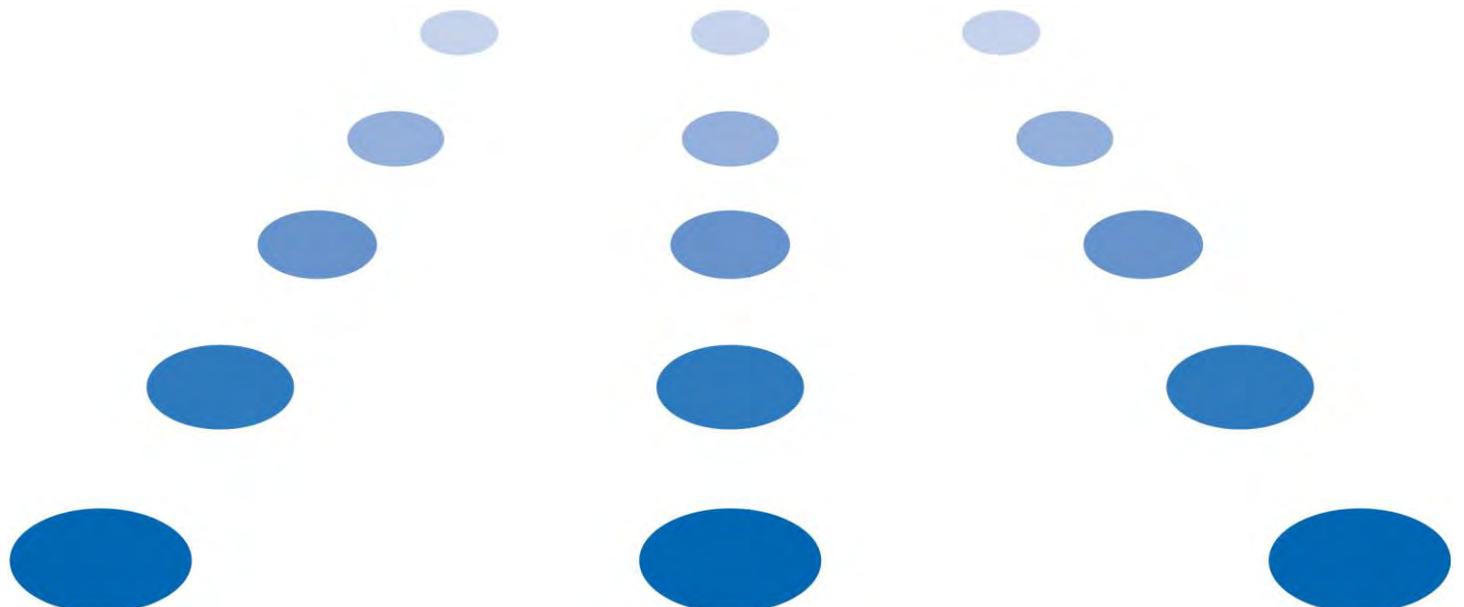
10.6 Interim Landscape Mitigation Strategy

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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PROGRESS POWER PROJECT
INTERIM LANDSCAPE MITIGATION STRATEGY

Version 3

Progress Power Limited

3512438B

**Progress Power Project
Interim Landscape Mitigation Strategy
Version 3**

3512438B

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1 INTRODUCTION

1.1 Purpose of this Document

- 1.1.1 The Interim Landscape Mitigation Strategy (LMS) augments the mitigation measures included in the Environmental Statement (Document 6.1), Section 11, Landscape and Visual Assessment. It includes proposals for landscape mitigation and its aftercare for a period of 10 years. Indicative landscape mitigation is shown on the Outline Landscape Plans, Figures 11.35 – 11.37 as amended (Document 2.9).
- 1.1.2 The purpose of this Interim LMS is to provide a clear landscape mitigation rationale, which responds to the context of the Project site and each element of the Project. It follows guidance from the Eye Airfield Development Framework and supporting landscape documents; in order to provide appropriate mitigation.
- 1.1.3 It is an evolving document which will be developed in greater detail as the design of the three main components of the Project progresses. This version builds on the measures proposed in the previous version (Document 10.6, dated 21-08-2014 [Rev C]). It addresses some matters raised at the Issue Specific Hearings on 16/17 October 2014, and takes account of subsequent discussions with the local planning authorities and Eye Airfield Parishes Working Group.
- 1.1.4 The final version of the LMS, detailed landscape design and long term management proposals are referred to collectively as the landscape proposals throughout this document. The landscape proposals will be agreed with Mid Suffolk District Council (MSDC) in order to discharge Requirements 4 and 5 of the Development Consent Order (DCO) after the Order has been granted. They will respond to the specific character of each part of the project site as well as to the opportunities and constraints presented by the final design and layout of the project components.
- 1.1.5 Additional landscape mitigation is proposed in the Draft s106 (document 10.4) which includes measures to reduce residual landscape and visual impact using a scheme of offsite planting. This offsite planting also provides the replacement hedgerows to mitigate the losses of this priority habitat (NERC ActS41).

1.2 Landscape Mitigation Proposals – DCO Requirements

Requirement 4 Provision of Landscaping

1.2.2 In fulfilment of Requirement 4 of the Draft DCO (Document 3.1), prior to construction of the Project landscape proposals for each stage of the works would be produced in accordance with the Interim Landscape Mitigation Strategy and Outline Landscape Plans. The proposals will include details of the:

- location, number, species, size and planting density of any proposed planting including details of any proposed tree planting and the proposed times of such planting, and details of protection measures including guards, stakes and deer fencing;
- cultivation, importing of materials and other operations to ensure plant establishment;
- bunds and proposed finished ground levels;
- hard surfacing materials;
- vehicular and pedestrian access, parking and circulation areas;
- minor structures, such as furniture, refuse or other storage units, signs and lighting;
- measures for the management and enhancement of the ecological resources that will remain within the Order land on completion of the authorised development;
- implementation timetables for all landscaping works; and
- A scheme of landscape maintenance for the life of the authorised development (to include an aftercare protocol providing for joint annual inspections by the relevant planning authority and the undertaker for a period of ten years from the implementation date[s], as agreed pursuant to requirement 5[2]).

Requirement 5 Implementation and Maintenance of Landscaping

1.2.3 Requirement 5 of the Draft DCO requires the following:

- All landscaping works must be carried out in accordance with the landscaping proposals approved under Requirement 4 in accordance with the relevant recommendations of appropriate British Standards.
- The landscaping works must be carried out in accordance with implementation timetables approved in the landscaping proposals.

- Any tree or shrub planted as part of an approved landscaping scheme that, within a period of five years (save in relation to numbered works 1 and 5 which shall be seven years) after planting, is removed, dies or becomes, in the opinion of the relevant planning authority, seriously damaged or diseased, must be replaced in the first available planting season with a specimen of the same species and size as that originally planted, unless otherwise approved by the relevant planning authority.

1.3 Related Documents

- 1.3.1 This Interim LMS should be read together with other material submitted in the DCO Application by the applicant, in particular the draft Construction Environmental Management Plan (CEMP).
- 1.3.2 The Interim LMS does not address details of existing trees and hedges to be retained and their protection during the construction period, or with the management of ecological impacts during construction. These matters are dealt within the CEMP as specified in Requirement 11.

1.4 Document Structure

- 1.4.1 The document has been structured as follows:
- **The Project:** Describes the main elements of the Project that are potential landscape and visual detractors;
 - **Planning context:** Describes relevant planning issues and supplementary design guidance;
 - **Site location and context:** Provides an appraisal of the landscape surrounding the Project;
 - **Landscape constraints:** Describes National Grid constraints in relation to the proposed gas and electrical infrastructure;
 - **Landscape mitigation principles:** Describes the key functions of mitigation for each of the three Project elements, and sets out how the landscape proposals will respond to the character of each site and its surroundings; and
 - **Mitigation proposals:** Describes measures to protect existing trees and hedgerows, the planting strategy and species mixes, and phasing of the works; and
 - **Long term management:** Describes aftercare of landscape mitigation for a period of 10 years.

2 THE PROJECT

- 2.1.1 The Project will comprise three key elements, the Power Generation Plant, the Gas Connection and the Electrical Connection which will be located within discrete areas of the Project site.
- 2.1.2 The Power Generation Plant would be sited centrally within the former Eye Airfield.
- 2.1.3 The Gas Connection comprises infrastructure required to deliver gas from the national transmission system to the Power Generation Plant. It would include the Pipeline approximately 1.7km long, a short access road, and a compound housing the Above Ground Installation. The Above Ground Installation would be sited on the southern edge of Eye Airfield, approximately 0.9km due south of the Power Generation Plant.
- 2.1.4 The Electrical Connection includes infrastructure required to export electricity generated by the Power Generation Plant to the electricity transmission network. It comprises an underground cable between the Power Generation Plant and the Electrical Connection Compound and Access Road from the A140 Junction. By necessity, the Electrical Connection Compound would be sited adjacent to an existing overhead high voltage transmission line, which lies approximately 1.5km due west of the Power Generation Plant. The access road would link the Electrical Connection Compound with the A140 road, which lies between the Power Generation Plant and Electrical Connection Compound.
- 2.1.5 All three elements, including the underground utilities and permanent access roads, would be located within agricultural land. The Power Generation Plant would be located within farmland adjacent to existing industrial development at Eye Airfield.
- 2.1.6 A full description of the Project can be found in the Environmental Statement (ES), Section 4 Project and Site Description. The ES landscape and visual assessment identified the following permanent landscape/visual detractors associated with each element of the Project.
- 2.1.7 The Power Generation Plant would result in the loss of approximately 10ha of agricultural land in the central part of Eye Airfield. Potential visual detractors are:
- up to five stacks (up to 30m high each),
 - the gas turbine generators (up to 19m high);

- the number and diverse appearance of the industrial structures required for the power generation process;
- lighting; and
- perimeter security fencing.

- 2.1.8 The Above Ground Installation would be sited within open landscape on the southern edge of the Airfield adjacent to Castleton Way, and would result in the loss of ~0.5ha of agricultural land. The sensitivity of this landscape is high. Potential visual detractors are the Above Ground Installation structures, which would be up to 3m high, and the perimeter with security fencing which would be up to 2.4m high. A tarmac surfaced access road would be provided between Potash Lane within Eye Airfield and the Above Ground Installation.
- 2.1.9 The Electrical Connection Compound with an AIS variant substation would be set within agricultural land in a diagonal arrangement to the small-scale rectangular historic field pattern. It would remove part of the historic field pattern. Agricultural land would be lost from the site of the Electrical Connection leaving small areas of land that would not be viable for arable farming. Potential visual detractors would be the Electrical Connection Compound and Sealing End Compound (SEC). The Electrical Connection Compound would be located on the eastern side of the existing overhead high voltage transmission line and extend over an area up to 150 x 150m. The SEC would be located on the western side and cover an area approximately 45m x 22m. The maximum height of structures would be 12.5m. Both compounds would be enclosed by perimeter fencing 3.4m high. A 6m wide tarmac surfaced access road approximately 0.9km long between the Electrical Connection Compound and Old Norwich Road would lie within agricultural land. The Access Road would be unfenced to allow continuous working between fields adjoining the road.
- 2.1.10 The Electrical Connection Compound with a GIS variant substation would differ from an AIS variant in that it would occupy a smaller area of land and would be aligned to fit within the existing field boundaries with only a small loss of hedgerows. The compound would extend over an area of 100m x 80m and the height of the structures would be similar to the AIS variant. Some structures would be enclosed within a substation hall constructed as a metal frame with metal cladding.
- 2.1.11 Construction of the Pipeline and Cable will require a temporary working strip wider than the width of the easement. Within this area, it may be necessary to remove hedgerows, and field drainage may be disturbed.
- 2.1.12 It is anticipated that National Grid would require an easement 10m wide over the Pipeline, which would be required in perpetuity, and would

constrain planting and development within the area of the easement. Potential constraints in relation to the Pipeline are discussed in more detail at 5.1.2.

3 PLANNING POLICY AND GUIDANCE

3.1 Eye Airfield Development Framework

3.1.1 Two of the three main elements of the Project, the Power Generation Plant and Above Ground Installation, would be sited at Eye Airfield, near Eye, Suffolk, within the development area defined by the Eye Airfield Development Framework, February 2013 (EADF).

3.1.2 The MSDC Eye Airfield Planning Position Statement (Non-Statutory Planning Guidance) adopted 18th November 2013 (EAPPS) confirmed the Council's decision that the EADF should guide future development on the airfield for both employment and housing. EAPPS section 5.2 notes, *"Landscape: It was realised from the outset that the study area was predominantly countryside with an agricultural character, also that the study area included an important part of the setting for Eye town and surrounding villages. The southern part of the study area, in particular, formed an important element of distant views towards, from and across the town."* It confirms that the supporting documents, 'Baseline Landscape Appraisal' and 'Landscape Strategy' produced by their consultants, Lloyd Bore, are key evidence that underpins the landscape proposals set out in the EADF Key Diagram.

3.1.3 The EAPPS highlights the need to consider landscape effects when developing Eye Airfield. It states, *"Extension of development at Eye Airfield will require a break into open countryside much of which is highly sensitive landscape. Consequently, the EADF has adopted a landscape led approach which is supported by a variety of background evidence documents, containing justifications and additional detail for the proposals in the EADF."*

3.1.4 With respect to the site of the proposed Power Generation Plant, the EAPPS recommends landscape treatment should be similar to the structure planting that encloses the adjacent National Grid Gas Compressor Station. It would form a new countryside edge pending future development in the southern and western part of the Airfield and would provide an appropriate setting for future higher value business / industrial uses.

3.2 Eye Airfield Development Framework Landscape Strategy

3.2.1 The EAPPS requires, *"Details of the mitigation of landscape should be considered as part of more detailed plans for development and clearly*

the Landscape Strategy and the EADF will be key documents in that consideration.”

- 3.2.2 EADF Landscape Appraisal and Strategy Document (2162-D10_C) provides several recommendations that should be considered when designing new development. Specifically, it advises developers, *“Advance planting of the structural belts is part of the strategy so that the mitigation of development is effective at an earlier time, and in certain areas there would also be a restriction on building heights”*.
- 3.2.3 EADF Appendix 05 Heritage and Landscape, Landscape Strategy (drawing number 2162/D10) illustrates aspirations for structure planting within the Airfield. With regard to Development Area 8, the Power Generation Plant site, linear woodland and shelterbelt planting are proposed to reinforce the landscape character and provide new wildlife habitats along its northern, southern and western boundaries. New hedgerow planting is indicated on the northern edge of Castleton Way near the Above Ground Installation compound.

EADF LS – Views and Visual Sensitivities

- 3.2.4 With respect to potential visual impact, EADF Section 2.7 Views and Visual Sensitivities, advises:
- *“Care should be taken in the design of any future development proposal that might impact on the viewpoints of greatest sensitivity and amenity. This will include resisting development in areas of highest sensitivity, and guiding development to areas of lower sensitivity;*
 - *Where development takes place, careful consideration should be given to siting, scale, colour and massing of development and how its impacts might be mitigated;*
 - *There are opportunities to enhance views by introducing shelterbelts and reinforcing hedgerows and tree belts, strengthening important wooded ridgeline characteristics. The general area of the site that contributes most to visual amenity, and from where views of highest sensitivity are located is the southern part of the site (character area A);*
 - *The rural lane corridor along Castleton Way is considered particularly sensitive, due to the proximity of public footpaths and footpaths that link to it, and its topography of slopes falling to the south. Viewed from the south, character area A slopes up to a horizon occupied by the existing industrial estates and the planted tree belt south of the compressor site; and*

- *A consistent approach is required for strategic landscape planting across the site that could be reasonably expected to mitigate and minimise the landscape and visual impact of the development.”*

EADF LS – Design Codes

- 3.2.5 Design codes in the EADF Landscape Appraisal provide detailed guidance to protect the landscape and visual qualities of the Airfield in the context of future development. The design codes described below are relevant to the Project:
- 3.2.6 Paragraph 6.17 notes the former airstrips are unique and significant historical features that should be retained and emphasised by green structure including hedgerows, tree belts and surface water attenuation. This guidance would apply to the southern and western boundaries of the development site, which adjoin two former airstrips.
- 3.2.7 Paragraphs 6.20 - 6.21 note the potential prominence of chimneys, flues and other tall vertical elements on the skyline, and the need for sensitive planning, siting and design to reduce adverse impact on the landscape and its visual qualities. Design issues concerning the colour, finishes, orientation and scale of new industrial structures should be designed to minimise landscape impact. Consideration should be given to the use of recessive colours and matt finishes that would be less eye catching and less prominent in the landscape.
- 3.2.8 Paragraph 6.22 notes the planning authority’s requirement for a landscape and visual assessment to be undertaken in accordance with current best practice to support proposed development of this type.

EADF LS – Key Mitigation Objectives

- 3.2.9 The following EADF landscape design codes provide guidance for the Project design and mitigation:
- *“The landscape structure of the airfield site is to be reinforced and extended with an objective to connect with landscape features beyond the site boundary;*
 - *The historical features of the site of significance are to be retained and incorporated into the strategic layout of the site;*
 - *Any new development incorporating chimneys, flues, masts or other vertical structures and tall industrial buildings should be sensitively planned, sited and designed, and carefully considered in relation to sensitive local views;*
 - *Proposals for landscape mitigation should be commensurate with the landscape and visual impacts of development proposals;*

- *Lighting, particularly exterior lighting, should be designed and installed so it minimises detrimental landscape and visual impacts;*
- *A range of appropriate tree and shrub species should be used, having due regard for the requirements of the National Grid guidance where planting is near to pipelines.”*

3.2.10 The design of the Project will be developed in accordance with guidance set out in the EADF and supporting Landscape Baseline Appraisals and Landscape Strategy, as well as Suffolk County Council’s wider landscape and biodiversity aims, in order to achieve the following objectives:

- To improve the landscape quality of the site where it is degraded;
- To enhance the historic elements, runways, hedgerows, shelterbelts and veteran trees to contribute to habitat connectivity and local amenity;
- To protect and enhance the different landscape character areas, particularly but not exclusively the high sensitivity area in the south; and
- To protect and enhance visual amenity, including 360⁰ views in, out and across development areas.

3.3 Suffolk County Council

3.3.1 Suffolk County Council’s Advice Note ‘Planting New Woodlands Protecting Archaeology & Landscape Character’, provides guidance for the design of woodland planting in order to protect landscape character, historic landscape features and archaeological sites.

4 SITE LOCATION AND CONTEXT

4.1 Site Location

4.1.1 The Power Generation Plant and Above Ground Installation would be sited within Eye Airfield, a redundant WWII airfield, which lies approximately 2 km north west of the small town of Eye, roughly halfway between Norwich and Ipswich in north Suffolk. It comprises medium to large scale industrial development within the Eye Airfield Industrial Estate and Mid Suffolk Business Park, and is surrounded by semi-rural landscape that includes arable farmland, the A140 major transport route, an overhead high voltage transmission line from Sizewell nuclear power station, and small villages / farmsteads.

4.1.2 The above ground components of the Electrical Connection would be sited within agricultural land west of the A140 and to the north of the small settlement of Yaxley.

4.2 Landscape Context

- 4.2.1 The Project is not located within any local landscape designations of importance. It is not located within any national or international designations related to landscape value. Several locally important Special Landscape Areas lie within 3km of the Project.
- 4.2.2 The former airfield occupies an area of approximately 250ha. Existing development is concentrated in the northern and central part and includes wind turbines (125m high) and industrial units of varying sizes. The Power Generation Plant site is adjacent to the Eye Power Station, which has a 40m high stack, and the National Grid Gas Compressor Station with communications mast ~50m high. Much of the southern part of the area proposed for industrial development is in agricultural use. Land within the Airfield is relatively flat with ground levels varying between approximately 45m AOD (metres above Ordnance Datum) at the Power Generation Plant site falling to 40m AOD at the lowest point in the south east. Mature tree belts and hedgerows with hedgerow trees within Eye Airfield Industrial Estate reduce views of existing industrial development; the degree of screening provided by predominantly deciduous vegetation is reduced but still effective following leaf fall.
- 4.2.3 The Electrical Connection Compound and SEC would be sited within agricultural land characterised by a strong, historic field pattern, comprising small to medium scale rectangular fields enclosed by hedgerows and small copses. The sensitivity of this landscape is high. The topography of the surrounding area is generally flat which, in combination with existing field hedges and woodland, limits views of the site. Small settlements at Yaxley in the south and Thrandeston in the north have views of the 400kV overhead line.

4.3 Landscape Character

- 4.3.1 In order to develop measures that provide effective mitigation and are appropriate to the surrounding landscape, it is necessary to consider the key characteristics of the wider landscape.

4.4 Suffolk Landscape Character Assessment

- 4.4.1 The Project is located within the Suffolk landscape character type Ancient Plateau Clayland. Key characteristics found within the Project site and surrounding landscape are:

- *“Flat or gently rolling arable landscape of clay soils dissected by small river valleys;*

- *Field pattern of ancient enclosure – random patterns in the south but often co-axial in the north. Small patches of straight-edged field associated with the late enclosure of woods and greens;*
- *Dispersed settlement pattern of loosely clustered villages, hamlets and isolated farmsteads of medieval origin;*
- *Villages often associated with medieval greens or tyes;*
- *Scattered ancient woodland parcels containing a mix of oak, lime, cherry, hazel, hornbeam, ash and holly;*
- *Hedges of hawthorn and elm with oak, ash and field maple as hedgerow trees;*
- *Substantial open areas created for WWII airfields and by 20th century agricultural changes; and Network of winding lanes and paths often associated with hedges create visual intimacy.”*

4.4.2 Former WWII airfields are a recurring feature of this landscape type, which are often the focus of industrial and transport orientated development and large-scale wind turbines, all of which can have considerable local visual impact. Specific issues relating to airfield development include the layout of buildings and the arrangement of planting to echo the alignment of runways.

4.4.3 Agricultural intensification within this landscape type in the 20th century has led to the removal of hedgerows and a thinning out of the historical field pattern. However, the distinctive character of this landscape type remains, and the qualities for which it is valued are in good condition, with a clearly apparent and distinctive character. This distinctive character is susceptible to relatively small changes and is assessed to be of high sensitivity.

4.5 EADF Landscape Appraisal

4.5.1 Further detailed landscape character assessment is provided in the EADF Landscape Appraisal, which gives a detailed analysis of landscape character variations and sensitivity throughout the airfield. The figure overleaf is an extract from this report.

4.5.2 The Power Generation Plant site lies in landscape character area C Industrial / Agricultural, which is characterised by:

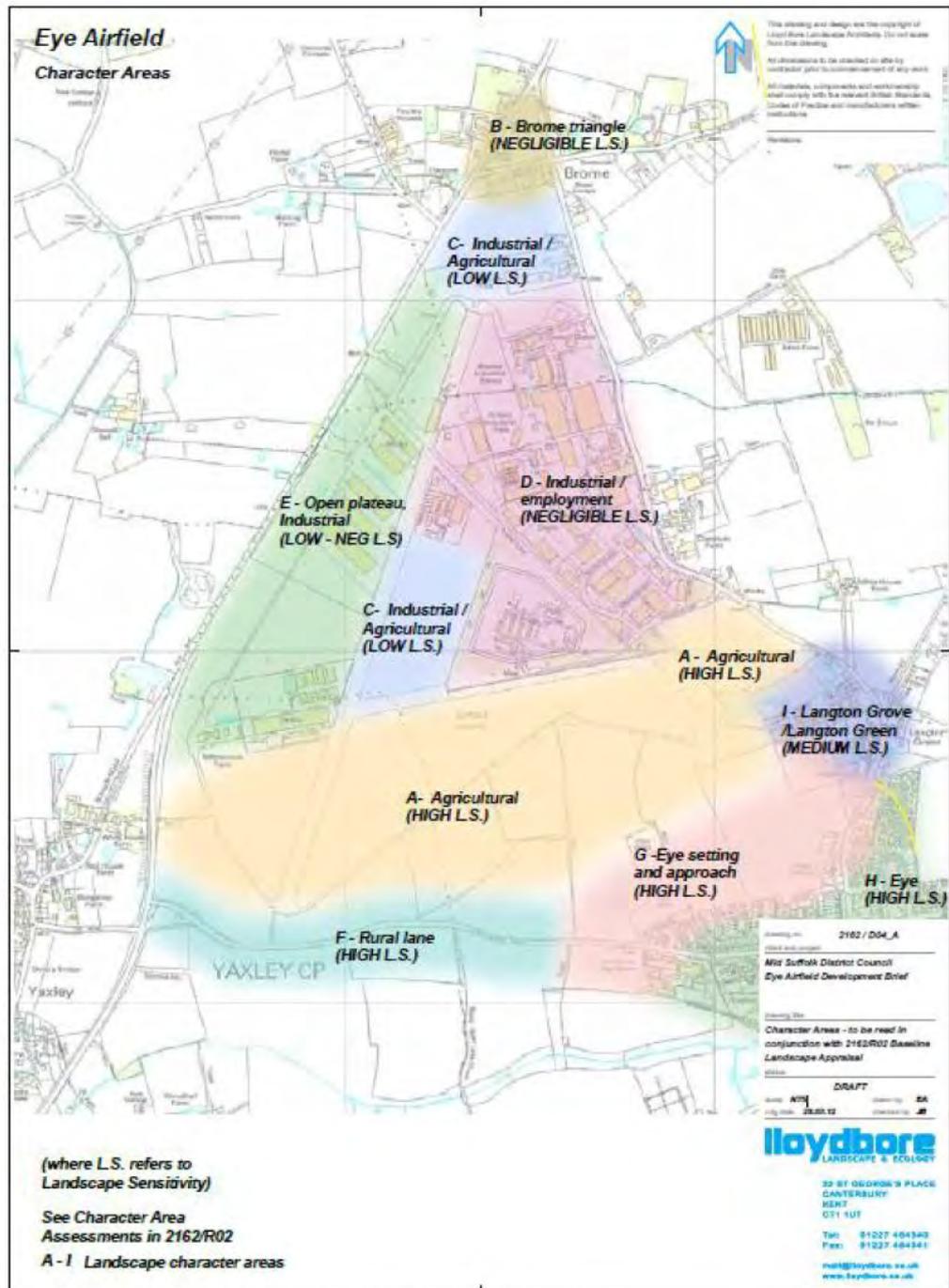
- *“Contained arable fields, bounded by industrial plots and (northern part) residential development;*
- *In general, views are restricted by large buildings such as the industrial and freight buildings within Eye Airfield;*
- *Remnant concrete runway strips alongside the arable fields;*

- *Sparse boundary vegetation, opportunity for improvement; and*
- *Little topographical variation.”*

4.5.3 Key elements that detract from the character of the site are:

- *“Eroded / discontinuous boundary hedgerows and degraded*
- *landscape structure;*
- *Industrial units / sheds of poorer visual quality; and*
- *Lack of consistent branding / signage.”*

4.5.4 The EADF assesses the overall sensitivity of this landscape to be low due to a lack of local distinctiveness and/or the presence of incongruous landscape elements. It notes there is great potential for enhancement.



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- 4.5.5 The Pipeline and Cable lie within landscape character area A - Agricultural. The EADF notes the following key characteristics of this area are:
- *“Arable fields;*
 - *Expansive open views, contributing to the open ‘prairie’ landscape (noted by the published LCA to be an undesirable characteristic, primarily due to a change in farming practices);*
 - *Remnant wide concrete runway strips dividing the arable fields;*
 - *Hedgerows with veteran trees delineating field boundaries, evidence of erosion in locations; and*
 - *Even topography.”*
- 4.5.6 The EADF assesses the overall sensitivity of this landscape to be high because it represents an important landscape feature forming an open and undeveloped gap between Yaxley, the A140, and Eye Town, contributing to the separation and individual identity of settlements, and thereby preventing coalescence.
- 4.5.7 The Above Ground Installation site lies in landscape character area F-Rural Lane, the key characteristics of this area are:
- *“Castleton Way, a gently meandering lane of distinctly rural character;*
 - *Wide, open views to the north and south, of a typically rural landscape, comprising farmland, hedgerows and trees. The hedgerow along the road is sporadic, giving the road a contained character in places, contrasting with open views across the landscape where hedgerows are absent;*
 - *Signage at the entrance to the Airfield site detracts from the rural character of the road. Approaching Eye from the west, the road changes abruptly in character; and*
 - *The views gained to the north, beyond the farmland are terminated by buildings on the employment land, and by structural planting.”*
- 4.5.8 The EADF assesses the overall sensitivity of this landscape to be high because it provides an attractive approach to Eye from the west and makes an important contribution to its setting.

5 LANDSCAPE CONSTRAINTS

5.1 National Grid Constraints

Gas Pipeline

5.1.2 Project planting proposals in the vicinity of the Gas Connection are required to follow National Grid (NG) guidance provided in, 'Trees and Vegetation near Gas Pipelines'. Detailed screen planting and hedgerow / hedgerow reinforcement planting proposals will be developed in consultation with NG after the engineering design of the Gas Connection has been finalised. NG's written consent is required before any tree and shrub planting is carried out within the pipeline easement.

5.1.3 To comply with NG constraints no tree or shrub planting would be undertaken within 6m of the gas pipeline. All trees proposed between 6m and 10m from the pipeline would be planted either as individual specimens or in a single row. The tree planting would include the species set out in section 8 of this report, and would exclude species that are unacceptable to NG (beech, hornbeam, lime, Scots pine, Austrian pine, oak, and cherry). Dense mass tree and shrub planting would be undertaken at a distance greater than 10m from the Pipeline.

5.1.4 Planting directly across the Pipeline would be limited to hedge planting with shallow rooting shrub species such as hawthorn and blackthorn. Planting would be undertaken only where a hedgerow is necessary for screening, or to reinstate a field boundary that has been severed during construction.

Overhead Line

5.1.5 NG infrastructure guidance, 'A Sense of Place, design guidelines for development near high voltage overhead lines' provides guidance for the design of landscape mitigation in relation to the Electrical Connection Compound. Indicative screen planting proposals near the Electrical Connection Compound have been. Detailed planting proposals will be developed in consultation with NG and in accordance with their standards for electrical safety clearances after the design of the Electrical Connection has been finalised.

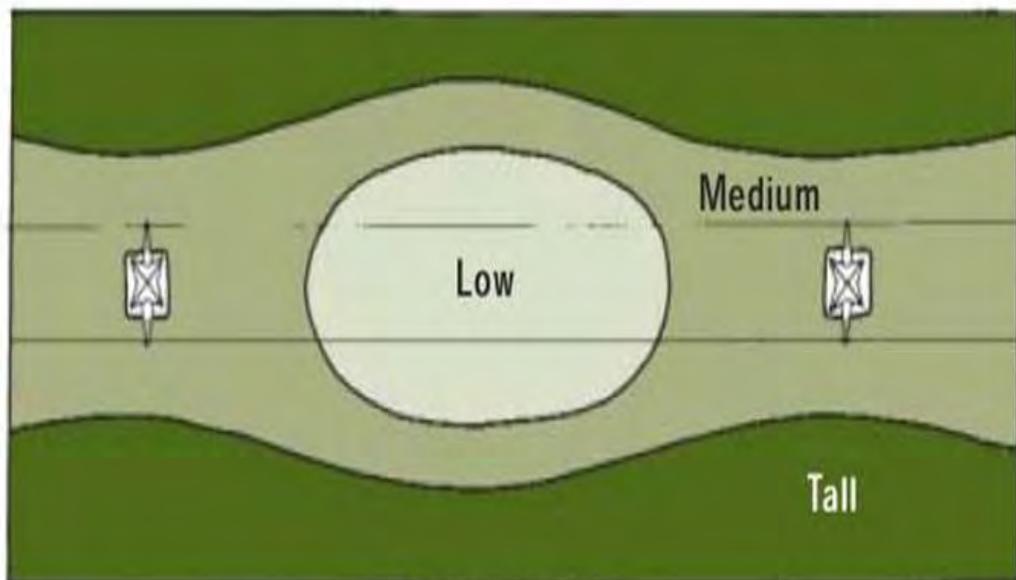
5.1.6 Detailed guidance on the selection of species will follow guidance provided by NHBC Technical Requirements, Part 4 Foundations, Chapter 4.2 Building Near Trees, and Appendix 4.2-A Water Demand and Mature Height of Trees.

5.1.7 Specific clearance for planting near overhead lines varies according to a number of factors including the type of pylon, operating voltage, and

local topography. Therefore, close consultation with NG will be undertaken once the design of the Electrical Connection Compound is finalised, and prior to developing the detailed landscape proposals for the planting and landscape mounds. It would follow guidance for planting heights as shown in the diagram below. Planting beneath the 400kV overhead line would be limited to the shrub species set out in their guidance. The layout of planting near any pylons or overhead lines would be designed to allow adequate space for maintenance activities to take place safely and without causing damage to existing habitats and landscapes.

5.1.8 With reference to NG guidance, A Sense of Place, design guidelines for development near high voltage overhead lines (<http://www.nationalgrid.com/uk/senseofplace>) the following tree species listed in section 8 could be included within each zone:

- Tall - all species excluding *Populus tremula*;
- Medium – cherry and mountain ash; and
- Low - no tree species.



Typical form of planting zones.

5.2 Other constraints

The Cable

- 5.2.2 The Cable between the Power Generation Plant and Electrical Connection Compound would be owned and operated by the Power Generation Plant operator, and would not be a NG asset. No tree or shrub planting would be undertaken within 6m of the cables except for reinstatement hedge planting which may be undertaken directly above the cables.

6 LANDSCAPE MITIGATION PROPOSALS

6.1 Project Landscape Strategy

- 6.1.1 Mitigation within the Power Generation Plant and Above Ground Installation sites would follow the broad aspirations of the EADF LS. Effective landscape mitigation would ensure the three Project elements are successfully integrated into the surrounding landscape by screening low level structures and activities. Planting would be designed to address the range of situations across the Project site. The detailed landscape proposals would respond to the specific character of each part of the project site whilst enhancing wildlife habitats.

6.2 Power Generation Plant - Operational Phase

- 6.2.1 Mitigation in respect of the site configuration, the architectural design of the proposed buildings and structures, colour and materials is described in the Design and Access Statement.
- 6.2.2 Indicative landscape mitigation is illustrated on the Outline Landscaping Plans (Document 2.9), Figure 11.35 Landscape Mitigation – Power Generation Plant and Gas Connection. The proposals include structure planting on the southern boundary of the Power Generation Plant site which would be subject to NG planting constraints in relation to gas pipelines.
- 6.2.3 Structure planting on the western and southern boundaries would provide partial visual screening and break up the large scale of the proposed Power Generation Plant. From a landscape and visual perspective the planting would assist in breaking up the scale and mass of the buildings and hardstandings.
- 6.2.4 Mitigation would comprise planting belts not less than 20m wide and similar in character to planting at the adjacent NG Gas Compressor Station. The southern belt would extend the existing plantation to produce a significant belt of woodland that would link with planting at

Eye Power Station. It would extend across the central area of the Airfield and would screen views of industrial development from the south. Within the airfield the structure planting would visually reinforce the historic runways adjoining the western and southern boundaries of the Power Generation Plant site. The security fencing enclosing the Power Generation Plant site would be set behind the structure planting which would create a soft 'green edge'. It could be visible for up to five years before it was screened by planting. The aesthetic design and colour of the fence would reduce its visual impact and improve integration with the surrounding landscape. In this situation a weldmesh fence, colour black, dark green or similar would be considered. Native species planting would be undertaken along part of the northern and eastern boundaries where screening is not required. In this location it would provide landscape integration by linking with existing planting at the adjacent Eye Power Station and NG Gas Compressor Station. The planting would comprise scrub and hedgerow to provide diverse habitats for wildlife.

- 6.2.5 Site drainage features within the north western part of the site would include areas of scrub planting and species rich grass areas to provide habitat for wildlife. Planting would include locally occurring native species of trees and shrubs to enrich the ecology of the area. Planting would be undertaken using UK provenance and grown nursery stock where available.
- 6.2.6 A number of small soft landscaped open spaces would be provided within the Power Generation Plant site near the administration facilities. In this location the planting would feature extra heavy standard size tree planting for immediate impact, shrub planting and grass areas.
- 6.2.7 Soil excavated from the Power Generation Plant site would be used to construct landscape mounds approximately 1.5 high within the structure planting on the southern part of the site. It would provide an immediate screen for ground level activities and would enhance the effectiveness of the young planting.
- 6.2.8 A detailed scheme for the creation, and management of these features for a period of 10 years, will be included in the landscape proposals to be agreed with MSDC, under DCO Requirements 4 and 5.

6.3 Gas Connection – Operational Phase

- 6.3.1 Indicative landscape mitigation surrounding the Above Ground Installation is illustrated on the Outline Landscaping Plans (Document Reference: 2.9), Figure 11.35 Landscape Mitigation – Power Generation Plant and Gas Connection. Site layout proposals are not

available at this stage and the location and footprint of the compound is indicative only.

6.3.2 In principle, landscape mitigation would include structure planting to screen the 3m high structures and security fence, which will be located behind the structure planting as described above. The aesthetic design and colour of the fence would be the same as the Power Generation Plant for visual continuity. A linear woodland belt would be planted along the northern boundary of the site to emphasise the adjacent runway. Structure planting between the western boundary of the site and Potash Lane within Eye Airfield would be subject to NG planting constraints in relation to gas pipelines.

6.3.3 Hedgerow / hedgerow tree planting would be undertaken along Castleton Way and Potash Lane within Eye Airfield.

6.3.4 A detailed scheme for the creation, and management of these features for a period of 10 years, will be included in the landscape proposals to be agreed with MSDC, under DCO Requirements 4 and 5.

6.4 Electrical Connection – Operational Phase

6.4.1 Indicative landscape mitigation surrounding the Electrical Connection Compound is illustrated on the Outline Landscaping Plans (Document Reference: 2.9), Figure 11.36 Landscape Mitigation – Electrical Connection Compound AIS Technology.

6.4.2 The proposed measures include extensive structure planting enclosing the Electrical Connection Compound in plantations up to 25m wide to screen views from nearby residential properties and public rights of way. The plantations would be laid out to respond to the rectangular field pattern in the vicinity of the compounds.

6.4.3 The security fencing enclosing the Electrical Connection Compound would be set behind the structure planting. The SEC compound fencing would be set behind a hedgerow or a linear belt of shrubs. The design of the fencing would comply with National Grid's requirements for safety and security. It is likely to include steel palisade fencing which would be finished in a dark recessive colour (dark green or black) to blend into the surrounding landscape..

6.4.4 Soil excavated from the site of the Electrical Connection Compound and Access Road would be used to construct landscape mounds approximately 1.5 high within the structure planting on the southern part of the site. Mounding would be provided on other boundaries of the compound subject to space, availability of material and compliance with NG requirements. The mounding would provide an immediate screen

for ground level activities and would enhance the effectiveness of the young planting.

- 6.4.5 Any woodland and hedgerow vegetation that was removed to accommodate the temporary road junction with the A140 would be reinstated on completion of the construction works. The detailed scheme of planting would include hedgerow or linear shrub planting to compensate for that lost as a result of the Electrical Connection Compound (the s106 planting also seek to address this issue).
- 6.4.6 Planting would include predominantly locally occurring native species of trees and shrubs woodland to enrich the ecology of the area, and would be undertaken using UK provenance and grown nursery stock.
- 6.4.7 Structure planting on the western boundary of the Electrical Connection Compound parallel with the overhead line is a priority screening area. Detailed planting proposals will be developed in consultation with NG to ensure the tallest species of trees and shrubs that comply with their constraints are planted in this location to produce a dense visual screen.
- 6.4.8 The landscaping principles described above would apply to a GIS variant substation, with the exception that structure planting enclosing a GIS substation would comprise narrower plantations of varying width up to 10m wide to screen views from nearby residential properties and public rights of way. Indicative landscape mitigation surrounding the Electrical Connection Compound is illustrated on the Outline Landscaping Plans (Document Reference: 2.9), Figure 11.37 Landscape Mitigation – Electrical Connection Compound GIS Technology.
- 6.4.9 Structure planting and landscape mounding in the vicinity of the Electrical Connection Compound would be subject to NG planting constraints in relation to overhead lines.
- 6.4.10 A detailed scheme for the creation, and management of these features for a period of 10 years, will be included in the landscape proposals to be agreed with MSDC, under DCO Requirements 4 and 5.

6.5 Phasing

Early planting

- 6.5.2 Mitigation screen planting will be undertaken at the start of the construction programme in areas of the Project site not required for the temporary construction works or permanent built development. The planting would grow by approximately 0.6 – 1.0m during the

construction period (~21 months) so would have more visual impact when the Project was commissioned. The final locations of early planting would be constrained by the detailed design of the project and the construction requirements.

6.5.3 Areas where early planting might be feasible within the Power Generation Plant are:

- Along parts of the northern and eastern boundary, between Eye Power Station and the NG Gas Compressor Station; and
- Part of the southern boundary adjacent to the former east - west runway.

6.5.4 Early planting adjacent to the Above Ground Installation could include:

- Hedge planting along Castleton Way;
- Hedge/structure planting along Potash Lane between Castleton Way and the runway adjacent to the northern boundary of the site.

6.5.5 Early planting may be feasible adjacent to the south east and south west boundaries of the Electrical Connection Compound with an AIS variant substation, and could comprise structure planting (up to 10m width).

6.5.6 The landscape proposals will set out in detail those areas to be subject to early planting to be agreed with MSDC, under DCO Requirement 4.

Planting on completion of the construction works

6.5.7 All other planting and seeding would be completed in the first available season following completion of the construction works.

Establishment and management of planting

6.5.8 All tree and shrub planting would be maintained for a period of ten years to ensure the planting establishes fully and achieves the mitigation objectives.

7 LANDSCAPE EARTHWORKS

7.1 Reinstatement of Agricultural Land

7.1.1 All land that is required temporarily during the construction phase would be reinstated primarily for agricultural use or landscape mitigation. Land reinstatement will follow the principles set out below to ensure agricultural land is restored to its former quality:

- All soil handling works would be undertaken in accordance with the Construction Code Of Practice for the Sustainable Use of Soils on Construction Sites, DEFRA (March 2011) and the Good Practice Guide for Handling Soils, MAFF (2000);
- During site preparation topsoil and subsoil would be separately stripped and stored for re-use within areas to be reinstated for agriculture;
- Subsoil and topsoil would be replaced to at least the original depths using suitable machinery to minimise damage to the soil structure;
- Deep compaction would be relieved to the full depth of the restored profile by using heavy duty subsoiling equipment; and
- All restored land would be monitored and managed in accordance with a five year aftercare plan to ensure all defects are remedied and the land is gradually brought back to its former productivity.

7.2 Preparation of Landscape Areas

7.2.1 Soil handling and placement will be as described in 7.1 above.

7.2.2 All planting areas will receive a minimum depth of 30cm topsoil which will be increased where resources are available up to a maximum depth of 45cm. In the limited locations where they are to be used, feathered and standard size trees shall be planted in topsoil pits 60cm x 60cm x 45cm deep. Smaller cell grown or bare root stock may either be pit planted or notch planted. Grass/wildflower areas shall be topsoiled to a depth of 15cm.

7.3 Landscape Mounding

7.3.1 All landscape mounding will be constructed in accordance with guidance provided by the Construction Code Of Practice for the Sustainable Use of Soils on Construction Sites, DEFRA (March 2011), the Good Practice Guide for Handling Soils, MAFF (2000) and BS4428:1989 Code of Practice for General Landscape Operations, as amended.

7.3.2 The design of landscape mounding within the Electrical Connection Compound will be developed in consultation with NG to ensure safe clearances are maintained between the electrical infrastructure and planted mounds at maturity.

Landscape mounds will be designed to blend into the landscape and will have shallow gradients on the outer face of the mound. The top and toe of all banks will be rounded. The topsoil and subsoil placement method will ensure settlement of fill areas is minimised whilst avoiding

undue compaction that would impede drainage and plant establishment. As a minimum, landscape mounding will be provided in the locations and to the approximate heights shown on the Outline Landscape Plans, Figures 11.35 – 11.37 as amended (Document 2.9).

8 PLANTING STRATEGY

8.1 General

- 8.1.1 Detailed planting proposals will be developed for each of the three Project components to ensure the design reflects the surrounding vegetation pattern and integrates successfully into the receiving landscape.
- 8.1.2 All existing trees and hedgerows will be retained within all parts of the Project site where reasonably practical. With the exception of the Electrical Connection Compound site, all new planting will be offset from the canopy spread of existing trees and hedgerows to reduce competition and safeguard the existing vegetation. Any existing hedgerows / field boundaries that lie within the proposed planting areas surrounding the Electrical Connection Compound will be retained. New planting will be undertaken up to these hedgerows which will not be managed and will be allowed to break down naturally.
- 8.1.3 The outer edges of woodland planting adjoining agricultural land would comprise predominantly native species shrubs that would be arranged either as shrubby woodland edge or as hedgerow planting depending on the degree of enclosure required at each location. Detailed planting layouts for the woodland plantations and edge planting would be included in the landscape proposals to be agreed with MSDC.
- 8.1.4 Regarding permanent works within the Electrical Connection Compound Site, when preparing the detailed design and final layout of the Electrical Connection Compound pursuant to Requirement 3(4) of the draft DCO, the Applicant will seek to avoid important hedgerows where reasonably possible, but subject to complying to the necessary standards of National Grid and safety requirements.

8.2 Plant Species

- 8.2.1 Although plant species for the woodland and hedgerow planting will be selected from predominantly locally occurring native species of trees and shrubs to reflect local landscape character, it is anticipated that some blocks of planting will include a proportion of non-local species for quick screening. It is anticipated that a final selection tree and shrub species will be drawn from the list below. Species will be selected in response to the constraints and opportunities offered by the detailed

design of each of the scheme components, and the characteristics of each part of the project site, as well as the need to balance timely screening and landscape character. The final selection of species for the planting scheme (Requirement 4) may also, in agreement with or at the request of MSDC, include other species.

PLANT SPECIES

Trees

Acer campestre (Field Maple)*
Acer pseudoplatanus (Sycamore)
Acer platanoides (Norway Maple)
Alnus glutinosa (Alder)
Betula pendula (Silver Birch)
Betula pubescens (Downy Birch)
Carpinus betulus (Hornbeam)
Malus sylvestris (Crab apple)*
Pinus nigra austriaca / maritima (Austrian / Corsican Pine)
Pinus sylvestris (Scots Pine)
Populus tremula (Aspen)
Prunus avium (Wild cherry)
Prunus institia (Damson)
Pyrus communis (Wild Pear)
Quercus robur (Common Oak)*
Sorbus torminalis (Wild Service)
Taxus baccata (Yew)
Ulmus glabra (Wych Elm)

*Trees that are suitable for inclusion in hedges

Shrubs

Cornus sanguinea (Dogwood)*
Corylus avellana (Hazel)*
Crataegus monogyna (Hawthorn)*
Euonymus europaeus (Spindle) *
Ilex aquifolium (Holly)*
Ligustrum vulgare (Privet)
Prunus spinosa (Blackthorn)*
Rosa arvensis (Field Rose)*
Rosa canina (Dog Rose)
Salix caprea (Goat Willow)
Salix viminalis (Common Osier)
Sambucus nigra (Elder)
Viburnum opulus (Guelder Rose)

*Shrubs that are suitable for inclusion in hedges

- 8.2.2 It is expected that planting would be undertaken using UK grown stock. The stock should be of UK provenance where available.
- 8.2.3 The woodland/structure planting will comprise a mixture of trees and shrubs depending on the specific requirements and constraints of the location. Trees and shrubs would be randomly arranged in single species groups of 5 – 17 of each, species groups intermixed.
- 8.2.4 Planting will be undertaken using predominantly small size plants, such as 45-60cm cell grown, to aid establishment. Planting would be set out at close centres (approximately 2 metres) and rows, snaking where appropriate, to ensure it developed quickly to form a dense screen.
- 8.2.5 The proposed hedgerow / hedgerow tree species will reflect the species composition of nearby hedges. Any off site hedgerow reinforcement planting would be undertaken with the same species as the existing adjoining hedgerow.
- 8.2.6 Hedge planting would comprise approximately 4% trees and 96% shrubs. Shrubs would be randomly arranged in single species groups of 3 – 17 of each, species groups intermixed. Hedgerow trees would be planted at 1.2-1.5m high feathered whips (with stake, tie and guard), and randomly spaced between 5 and 11m apart. Cell grown plants 45-60cm high would be planted in a double staggered row using 5 plants per metre with 35cm between the rows. Amenity grade bark mulch will be spread to a depth of 75mm over hedge planting plot. All hedge plants would be protected with clear plastic spiral guards and supported with a cane.
- 8.3 Plant Protection**
- 8.3.1 Plant protection measures will be included to control damage by deer and rabbits. Additional fencing and / or guards would be provided until the planting had established.
- 8.3.2 Structure planting within the Power Generation Plant and Above Ground Installation sites would be protected with individual shelter guards. Spiral guards would be fitted to all feathered and standard size trees.
- 8.3.3 Large areas of structure planting within the Electrical Connection Compound site will be enclosed with deer and/rabbit proof fencing. A detailed specification for this fencing will be included in the final landscaping proposals plans to be agreed with MSDC. Additionally, all transplants and/or cell grown plants would be protected with individual shelter guards. Planting in smaller areas where deer fencing is

impractical would be protected with individual deer guards (1.8m tubes and staked).

- 8.3.4 Hedgerow trees would be protected with spiral guards at the Power Generation Plant and Above Ground Installation sites, and deer guards at the Electrical Connection Compound site.

8.4 Establishment and Maintenance

- 8.4.1 During the 12 month establishment period six maintenance visits would be undertaken at regular intervals between 1st March and 30th September.
- 8.4.2 At each visit all plants would be firmed up, weeds would be removed over a 2.0m wide strip central to hedge planting and 1.0m diameter to woodland plants. Dead or damaged wood would be pruned out and removed. All plant guards and fencing would be inspected and adjusted or repaired as necessary. All other vegetation within structure planting areas would be cut back twice during the 12 months establishment maintenance period, firstly in May and again in late August. All dead or failed plants would be replaced in the next planting season to ensure 100% stocking. Mulch would be topped up to a full depth of 75mm in all plant stations and hedgerows to suppress weed growth.
- 8.4.3 Maintenance works in Years 2 to 4 after planting would include four maintenance visits at regular intervals between 1st March and 30th September. At each visit all plants would be firmed up and weed growth would be controlled to reduce competition with the establishing plants and to prevent spread to adjacent agricultural land. Dead or damaged wood would be pruned out and removed. All stakes, ties, plant guards and fencing would be inspected and adjusted, repaired or removed as necessary. General slow release fertiliser would be applied annually in early spring. Formative pruning of the tops and sides of hedges would be undertaken annually to encourage dense branching. All dead or failed plants would be replaced in the next planting season to ensure 100% stocking.
- 8.4.4 Maintenance works during Years 5 to 7 would include four maintenance visits at regular intervals between 1st March and 30th September.
- 8.4.5 Weed growth would be controlled where necessary to reduce competition with the establishing plants and to prevent spreading to adjacent agricultural land. Formative pruning would be undertaken to trees within structure planting and hedgerow trees. Hedgerows, excluding hedgerow trees, would be trimmed to encourage dense branching within an overall design height of 4 metres where they are required for screening. All stakes, ties, plant guards and protective

fencing would be removed where accessible. All dead or failed hedgerow trees would be replaced in the next planting season to ensure 100% stocking.

- 8.4.6 Maintenance works during Years 8 to 10 would include two maintenance visits each year. Formative pruning would be undertaken to trees within woodland plots and hedgerow trees. Hedgerows, excluding hedgerow trees, would be trimmed annually to encourage dense branching within an overall design height of 4 metres where they are required for screening.
- 8.4.7 The scheme of establishment and maintenance in the final Landscape Plan would be agreed with MSDC, in accordance with draft DCO Requirements 4 and 5.

8.5 Monitoring

- 8.5.1 Mitigation planting would be monitored annually to ensure it is achieving the intended objectives to avoid or reduce adverse landscape and visual impacts.
- 8.5.2 In fulfilment of Requirement 5, to ensure satisfactory development of the landscape planting, there will be an agreed procedure for joint annual inspection of all mitigation areas by representatives of MSDC and developers/ operators of the project at the end of each growing season for each year of the ten year aftercare period.
- 8.5.3 Areas found not to be thriving should be treated to such additional works as are required to rectify the situation within the next growing season
- 8.5.4 Any tree or shrub planted as part of an approved landscaping scheme that, within the first seven years of the aftercare period is removed, dies or becomes, in the opinion of MSDC, seriously damaged or diseased, must be replaced in the first available planting season with a specimen of the same species and size as that originally planted, unless otherwise agreed in writing by MSDC.
- 8.5.5 Suspension of the aftercare period for any part of the scheme may occur in the event that in the opinion of MSDC there was a significant failure of the planting scheme that could not be satisfactorily remedied in the following planting season, and or part of the planting scheme was failing to progress to the extent that it would not achieve the objectives of the scheme within the aftercare period.