

BT-NG-020621-545-0075

Bramford to Twinstead Reinforcement

Volume 6: Environmental Information

Document 6.3.6.2: ES Appendix 6.2 –Assessment of Effects on Designated Landscapes

Final Issue A
April 2023

Planning Inspectorate Reference: EN020002

Infrastructure Planning (Applications, Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

nationalgrid

Page intentionally blank

Contents

1.	Introduction	1
1.1	Overview	1
1.2	Structure of this Appendix	1
1.3	Methodology	2
1.4	Scope of Assessment	4
2.	Dedham Vale AONB	5
2.1	Introduction	5
2.2	Scope of Assessment	6
2.3	Baseline	6
2.4	Landscape Sensitivity	7
2.5	Assessment of Effects	9
3.	Special Landscape Areas	13
3.1	Introduction	13
3.2	Scope	13
3.3	Gipping Valley SLA	14
3.4	Brett Valley SLA	16
3.5	Box Valley SLA	19
3.6	Stour Valley SLA	21
3.7	Summary	24
4.	Conclusion	26
4.1	Summary of Significant Effects	26

1. Introduction

1.1 Overview

- 1.1.1 National Grid Electricity Transmission plc (here on referred to as National Grid) is making an application for development consent to reinforce the transmission network between Bramford Substation in Suffolk, and Twinstead Tee in Essex. The Bramford to Twinstead Reinforcement ('the project') would be achieved by the construction and operation of a new electricity transmission line over a distance of approximately 29km comprising of overhead lines, underground cables and grid supply point substation. It also includes the removal of 25km of the existing distribution network and various ancillary works.
- 1.1.2 The reinforcement would include approximately 18km of overhead line (consisting of approximately 50 new pylons, and conductors). It is assumed that this reinforcement would operate at least 400kV in a similar way to the majority of the rest of the transmission network. For the purposes of this report, the new overhead line is referenced as 'proposed 400kV overhead line' to differentiate it from the existing 400kV overhead line and the UK Power Network owned 132kV overhead line.
- 1.1.3 For a full description of the project reference should be made to Environmental Statement (ES) Chapter 4: Project Description (**application document 6.2.4**).
- 1.1.4 This assessment of the project on designated landscapes has been produced to support the application for development consent and the accompanying ES under the Planning Act 2008.
- 1.1.5 The assessment presented in this appendix is based on the Proposed Alignment shown on ES Figure 4.1: The Project (**application document 6.4**). As this is a Nationally Significant Infrastructure Project, National Grid is seeking consent for horizontal and vertical Limits of Deviation (LoD) within which the final alignment would lie. Consideration has been given to the potential for effects to be of greater significance should any of the permanent or temporary infrastructure elements be moved within the LoD.
- 1.1.6 The assumptions made regarding the use of flexibility for the assessment, and any alternative assumptions, are set out in ES Chapter 6: Landscape and Visual (**application document 6.2.6**).

1.2 Structure of this Appendix

- 1.2.1 This appendix follows the structure shown in Table 1.1.

Table 1.1 – Structure of this Appendix

Chapter	Content
1: Introduction	Overview and methodology (this chapter)
2: Dedham Vale Area of Outstanding Natural Beauty (AONB)	Scope and assessment of effects on the AONB
3: Special Landscape Areas (SLA)	Scope and assessment of effects on SLA
4: Conclusion	Summary of significant effects during construction and operation

1.3 Methodology

1.3.1 The designated landscapes assessment follows the approach set out in ES Appendix 6.1: Landscape and Visual Methodology (**application document 6.3.6.1**). In summary it considers the following, in relation to each designated landscape:

- Landscape sensitivity (taking into consideration landscape value and susceptibility);
- Assessment of the magnitude of change; and
- Significance of landscape effects.

Study Area

1.3.2 The Study Area for the assessment is shown on ES Figure 6.1: Landscape and Visual Impact Assessment (LVIA) Study Area and Landscape Designations (**application document 6.4**) and extends to 5km from the Order Limits. This distance was determined by the nature of the surrounding environment, the physical scale of the proposals and the likely distance over which they would be sufficiently visible to give rise to significant effects. It was also informed by the Zone of Theoretical Visibility (ZTV) plans presented on ES Figures 6.7 to 6.13 (**application document 6.4**).

Baseline

1.3.3 A key consideration of the assessment was the need to understand the baseline landscape of the designated landscapes, both in terms of their key characteristics and the reasons for its designation, and also how these may be affected by the project.

1.3.4 The baseline descriptions are provided in ES Appendix 6.3: Assessment of Effects on Landscape Character (**application document 6.3.6.3**). These in turn derive from a review of published information including the Suffolk Landscape Character Assessment (Suffolk County Council, 2011), Essex Landscape Character Assessment (Chris Blandford Associates, 2003), local landscape assessments (for example, neighbourhood plans and village design statements), Ordnance Survey (OS) maps, Google Earth Pro, Google Streetview, and extensive field survey. This information was supported by baseline information from the other EIA disciplines, notably ES Chapter 7: Biodiversity (**application document 6.2.7**) and ES Chapter 8: Historic Environment (**application document 6.2.8**). All the desk based information was verified during the field surveys.

1.3.5 As described in the methodology in ES Appendix 6.1: Landscape and Visual Methodology (**application document 6.3.6.1**), the baseline concludes with a judgement on the relative value of the landscape within each designated area (within the study area).

Assessment of Sensitivity

1.3.6 The assessment of the sensitivity of the landscape within the designated area to the project is based on the judgements for visual value and the susceptibility of receptors in accordance with Chapter 2 of the methodology set out in ES Appendix 6.1: Landscape and Visual Methodology (**application document 6.3.6.1**).

Assessment of Magnitude of Change

1.3.7 The assessed magnitude of likely change to the landscape takes into consideration judgements on the anticipated size/scale of effect and the geographical extent as per

Chapter 2 of the methodology set out in ES Appendix 6.1: Landscape and Visual Methodology (**application document 6.3.6.1**). These judgements are reported for construction, operation – Year 1, and operation – Year 15. Where relevant, reference is made to viewpoint locations. For further information on viewpoints including baseline photography and wirelines, refer to ES Appendix 6.4: Viewpoint Assessment (**application document 6.3.6.4.1 to 6.3.6.4.7**).

Overall Assessment of Effects

- 1.3.8 Judgements on the significance of effects on each designated area as a result of the project take account of the overall judgements on sensitivity and magnitude of change as explained in Chapter 2 of the methodology set out in ES Appendix 6.1: Landscape and Visual Methodology (**application document 6.3.6.1**). These judgements are reported for construction, operation – Year 1, and operation – Year 15 and effects are ultimately highlighted as ‘significant’ or ‘not significant’. The judgements also consider the following measures which are included in the design of the project:
- Hedgerow, tree and shrub reinstatement as shown on the Vegetation Reinstatement Plans in Appendix B of the Landscape and Ecological Management Plan (LEMP) (**application document 7.8.2**); and
 - Embedded measures including planting around the CSE compounds and planted mounds around the GSP substation as described in ES Chapter 4: Project Description (**application document 6.2.16**) and shown on ES Figure 16.1: Embedded Measures and Mitigation Proposals (**application document 6.4**).
- 1.3.9 The assessment presented in this document assumes that these measures are in place.
- 1.3.10 In addition, there are some locations where additional mitigation measures are proposed for specific purposes, such as ecological benefit. These measures are shown on ES Figure 16.1: Embedded Measures and Mitigation Proposals (**application document 6.4**).
- 1.3.11 The following areas of mitigation planting are included in the assessment even though they are not a response to significant effects on designated landscapes. This is because these areas are large enough to have a noticeable effect on the landscape by Year 15:
- New woodland planting between Wolves Wood and Ramsey Wood (MM09); and
 - New woodland planting south-east of Ramsey Wood (MM10).
- 1.3.12 These measures are considered in the Year 15 assessment for the Gipping Valley SLA and are shown on ES Figure 16.1: Embedded Measures and Mitigation Proposals (**application document 6.4**).
- 1.3.13 There are a number of additional areas of planting identified for landscape softening. These are not mitigation and most of these measures consist of short sections of new linear woodland or hedgerow planting and are too small to influence the wider landscape. They are therefore not presented or assessed in this document.
- 1.3.14 Where judgments refer to a distance from the LoD or to effects on the landscape within the LoD, this is to reflect the impacts of the works within the main construction or operational corridors.

1.4 Scope of Assessment

1.4.1 The project is located near to and crosses a number of designated landscapes, as shown on ES Figure 6.1: LVIA Study Area and Landscape Designations (**application document 6.4**):

- Dedham Vale AONB (national designation);
- Gipping Valley SLA (local designation);
- Brett Valley SLA (local designation);
- Stour Valley SLA (local designation); and
- Box Valley SLA (local designation).

1.4.2 Although not designated, the Stour Valley Project Area (SVPA) is also shown on ES Figure 6.1: LVIA Study Area and Landscape Designations (**application document 6.4**) for context, as this area has similar picturesque landscape qualities to Dedham Vale AONB, being valued for its gently undulating river valley topography, medieval settlement pattern and rural characteristics. The SVPA is also considered to be part of the setting of the AONB, which is described further in Annex A: Dedham Vale AONB Approach and Identification of Setting Study (**application document 6.3.6.2.1**). Whilst the SVPA does not have the same level of protection as the AONB, the local planning authorities manage it alongside the AONB and share a desire to protect it from inappropriate development. The SVPA covers the entirety of Section G: Stour Valley. The SVPA is not assessed as a receptor in its own right as part of the LVIA because, as agreed with Natural England (August 2021), it is not a designated landscape. It is considered in the assessment of the AONB as it forms part of the setting and also under the relevant landscape character areas in ES Appendix 6.3: Assessment of Effects on Landscape Character (**application document 6.3.6.3**).

2. Dedham Vale AONB

2.1 Introduction

2.1.1 The nationally designated Dedham Vale AONB covers the lower part of the Stour Valley on the Essex and Suffolk border. It was designated in 1970, under the 1949 National Parks and Access to the Countryside Act, to ensure the natural beauty and special qualities of the area are conserved and enhanced for future generations. It is recognised in national landscape character area (NCA) 86:

‘The area was made famous worldwide through the paintings of the landscape artist John Constable. Many of the scenes that brought him inspiration two centuries ago can still be seen today, especially at Flatford and along the banks of the River Stour. This area, now known as ‘Constable Country’, is a popular visitor destination, particularly during the summer months’. (Natural England, 2014c).

2.1.2 Whilst the AONB designation is primarily focussed along the valley of the Stour River, as shown in ES Figure 6.1 its boundary extends along the tributaries of the River Brett and Box onto adjacent high ground south of Polstead/Leavenheath and Shelley respectively. The existing 132kV and 400kV overhead lines currently pass through the northern part of the AONB.

Application for AONB Extension

2.1.3 To ensure the efficient and co-ordinated management of the AONB and SVPA, a Joint Advisory Committee and Partnership (the Partnership) was formed in 1993 and is made up of a diverse range of organisations with an interest in the area. Since 2009, the Partnership has had an aspiration to extend the AONB to cover parts of the SVPA and has identified an area which it considers meets the criteria for designation as AONB.

2.1.4 Natural England confirmed in March 2021 that the Partnership’s proposal to vary the boundary of the AONB had been registered. In June 2021, Natural England announced proposals for new protected areas across England, alongside a new programme to examine how more areas could benefit from landscape improvements and deliver more for people and nature. Under these proposals, Natural England announced that extensions are being considered to two existing AONB (Surrey Hills AONB and the Chilterns AONB) as well as two new AONB (Yorkshire Wolds AONB and Cheshire Sandstone Ridge AONB). There is no current programme available regarding consideration of the proposed extension to the Dedham Vale AONB.

Setting of the Dedham Vale AONB

2.1.5 Annex A: Dedham Vale AONB Approach and Identification of Setting Study (**application document 6.3.6.2.1**) considers the setting of the AONB in the context of the project. Its purpose is to identify areas of the landscape considered to be part of the ‘setting’ of the AONB, in order to inform the assessment of effects on the defined natural beauty of the AONB. This is particularly where views from or to the designated landscape are identified as important, or where the landscape character of land within and adjoining the AONB complements that of the adjacent designated area.

2.1.6 Section 3.3 of the Annex refers to the Dedham Vale AONB Position Statement (Dedham Vale AONB and Stour Valley Project Partnership, 2016), which provides guidance on the

consideration of impact of development (including infrastructure) and land management (including tree planting) proposals outside of but within the setting of the AONB.

- 2.1.7 Paragraph 4 of the Position Statement defines the setting of the AONB *‘to be the area within which development and land management proposals, by virtue of their nature, size, scale, siting materials or design can be considered to have an impact, positive or negative, on the natural beauty and special qualities of the Dedham Vale AONB. This is particularly the case where long views from or to the designated landscape are identified as important, or where the landscape character of land within and adjoining the designated area is complementary’.*
- 2.1.8 The emphasis of this statement is on the effects of development within the setting of the AONB influencing the natural beauty of the landscape within the AONB rather than on the setting itself.

2.2 Scope of Assessment

- 2.2.1 On the advice of Natural England and as agreed in the Statement of Common Ground (**application document 7.3.2**), the following assessment is based on the current AONB boundary. It does, however, refer to the area of setting defined in Annex A: Dedham Vale AONB Approach and Identification of Setting Study (**application document 6.3.6.2.1**).
- 2.2.2 The assessment focusses on the northern part of the AONB between Layham and Bures Green as this is the area where the project may adversely affect the natural beauty of the AONB and the purpose for which it was designated.
- 2.2.3 The components of the project which have been assessed in relation to the AONB are the dismantling and removal of the existing 132kV overhead line, the construction and operation of the new 400kV overhead line and the construction and operation of the 400kV underground cables and their associated CSE compounds, and the trenchless crossing of the Box Valley.
- 2.2.4 The components of the project which would not affect the AONB and are therefore not referenced further in this assessment are the following:
- Construction and/or operation of the GSP substation, which is located nearly 8km from the AONB boundary and outside the area defined as the setting identified in Annex A: Dedham Vale AONB Approach and Identification of Setting Study (**application document 6.3.6.2.1**); and
 - Construction and/or operation of the Stour Valley East and Stour Valley West CSE compounds, which are located some 2.2km and 4.9km from the AONB boundary respectively. Although within the area defined as setting in Annex A: Dedham Vale AONB Approach and Identification of Setting Study (**application document 6.3.6.2.1**), the intervening landform and vegetation would obscure any views across and into/out of the AONB.

2.3 Baseline

- 2.3.1 The part of the AONB which would be affected by the project consists of the higher valley sides of the River Stour where they merge into the plateau that extends northwards beyond the AONB and is incised by the broad valley of the River Brett and the smaller and narrower valley of the River Box.

- 2.3.2 Within the study area at a county level (Suffolk County Council, 2011) the landscape is characterised as Ancient Rolling Farmlands (LCA 6) and Rolling Valley Farmlands (LCA 1), with a narrow area of Valley Meadowlands (LCA 5) along the valley floor of the Rivers Brett and Box. The key characteristics of these landscape character types are presented in Appendix 6.3: Assessment of Effects on Landscape Character (**application document 6.3.6.3**).
- 2.3.3 The current adopted management plan (the 2021 Management Plan) covering Dedham Vale AONB and SVPA (Dedham Vale AONB and Stour Valley Partnership, 2021) defines a series of natural beauty indicators. These are linked to the type, range, and composition of the physical components of the landscape, as well as to the less tangible experiential aspects of landscape as recognised and valued by people. The 2021 Management Plan notes that these are not necessarily rare qualities but are simply what makes the AONB important and valued. Natural beauty indicators are alternatively referred to in the 2021 Management Plan as ‘special qualities’, but these are different to the special qualities defined in the previous Dedham Vale AONB and Stour Valley Project Management Plan (Dedham Vale AONB and Stour Valley Partnership, 2016), which related to more specific landscape elements within the AONB.
- 2.3.4 The natural beauty indicators identified in the 2021 Management Plan are:
- Landscape quality – intactness of landscape and generally free of incongruous features;
 - Scenic quality – iconic lowland river valley with assemblage of features;
 - Relative wildness – sense of rural isolation, historic human and agricultural activity;
 - Relative tranquillity – limited, but significant, incursions from human activity;
 - Natural heritage features – functioning river, with associated habitats and species; and
 - Cultural heritage – historic villages, visible archaeology, and artistic associations.

2.4 Landscape Sensitivity

- 2.4.1 The AONB is a nationally designated landscape that is valued for its scenery, and cultural and artistic associations. The 2021 Management Plan includes a Statement of Significance which defines the landscape within the AONB as follows:

‘The Dedham Vale AONB is a predominately agricultural landscape that exhibits a subtle lowland river valley with an assemblage of features associated with this landscape still in place and intact. These features include a gently winding river and tributaries; gentle valley sides with scattered woodlands; sunken rural lanes; picturesque villages with imposing churches and historic timber framed buildings; scattered farmsteads and agricultural buildings; small fields enclosed by ancient hedgerows; riverside grazing meadows with associated drainage ditches and visible and hidden archaeology providing evidence of human habitation over previous millennia.

The area remains mostly free of incongruous development and large scale industrial developments. Despite some intrusions of human activity in the twentieth and twenty first centuries, the area retains a rural charm and tranquillity and is largely free of infrastructure associated with modern life.

The essential character of the Dedham Vale AONB was established in the middle of the previous millennium and has remained intact despite social, technological events. The fundamental beauty of the area and the scenes of a working landscape were captured by England's finest landscape artist, John Constable. The sites of his paintings are still recognisable in the heart of what is now the AONB.'

2.4.2 The value of the landscape within the AONB is therefore considered to be high.

2.4.3 Characteristics of the landscape within the AONB which are more susceptible to loss or damage resulting from the project include the following:

- **Landform** – the rolling and sloping landform, including the River Box and its tributary valleys, such as the small valley to the north of Peyton Hall and more strongly incised valley to the north of Polstead;
- **Landscape Pattern and Scale** – the pattern of small to medium sized fields bordered by often species-rich hedgerows with hedgerow trees, which in places merges into a larger scale pattern of irregular arable fields towards the edge of the AONB;
- **Woodlands** – woodlands including Bushy Park Wood and Dollops Wood, as well as the valley side woodland and riparian belts along the River Box and its tributaries, some of which is associated with the semi-parkland character of the landscape at Peyton Hall. Some of the woodlands form distinctive skylines, defining the valleys and reducing intrusion from modern development;
- **Valley Floor Grasslands** – the intimate river valley grasslands with their cattle grazed pasture divided by wet ditches with occasional carr woodland and plantations of poplar;
- **Historic Settlements and Lanes** – the network of winding and often sunken lanes, which are frequently bordered by hedgerows and connect a dispersed pattern of historic villages, hamlets and isolated dwellings and farmsteads;
- **Long Views** – long views across and into/out of the AONB to the north. These are often framed by the woodlands, which also in many places restricts outward views;
- **Scenic Quality** – typically, picturesque scenery, although this is locally affected by the buildings and intensive orchard production associated with Boxford Fruit Farm, and also by the presence of the existing overhead lines; and
- **Tranquillity** – the sense of tranquillity and rural isolation experienced, particularly along the valley floors which are relatively free of vehicular access.

2.4.4 There are also some discordant elements which reduce the susceptibility of the landscape. These include the existing 132kV and 400kV overhead lines, the large Boxford Fruit Farm near Peyton Hall and the golf course developments at the Stoke by Nayland Resort near Leavenheath and Brett Vale Golf Club near Raydon.

2.4.5 Based on the above, the susceptibility of the landscape within the AONB to the project is considered to be high. When combined with the high value, the sensitivity of the AONB to the project is considered to be high.

2.5 Assessment of Effects

- 2.5.1 The landscape within the AONB would not be affected by construction and/or operation of the GSP substation which is therefore not considered. The landscape within the AONB would be directly and indirectly affected by the dismantling and removal of the existing 132kV overhead line, construction and operation of the new 400kV underground cables and the trenchless crossing of the Box Valley. It would also be indirectly affected by construction and operation of the new 400kV overhead line and the Dedham Vale East CSE compound.

Construction

- 2.5.2 Dismantling and removal of the existing 132kV overhead line would directly affect the landscape within the AONB but the effects would be short term and require little vegetation removal. A small working area around each pylon would be required and these would be accessed by temporary access routes. Most of the work is likely to be at ground level with some limited at-height working, including the use of mobile cranes. The indirect effects would be some localised disruption to the more enclosed and tranquil parts of the AONB with a reduction in scenic quality and sense of rural isolation. Movement of construction vehicles and plant along the roads around the edge of the AONB, including the B1068, Brick Kiln Lane Hadleigh Road and Holt Road, and temporary access routes would introduce further localised disturbance.
- 2.5.3 There would also be some indirect effects on the character of views out from the edge of the AONB near Polstead Hall and around Tiger Hill from the dismantling and removal of the existing 132kV overhead line and construction of the new 400kV overhead line within the setting of the AONB. As evidenced by viewpoints E-10, F-15 and F2.16, due to the high woodland and tree cover, only the upper parts of the taller equipment are likely to be noticeable. The works would be perceived as a series of discrete sites but because of the intervening distance and presence of vegetation these sites would be inconspicuous and visually integrate with their surroundings. Whether within the AONB or in its setting, the construction activities would only be present at each pylon location for a short period of time and the effects would be temporary and short term. The works would also be seen in the context of the existing 400kV overhead line, which has already affected the nature of the views across and into/out of the AONB.
- 2.5.4 By contrast, the activities required to construct the 400kV underground cables, would noticeably alter the appearance of the local landscape within the LoD. The existing rural farmland would become a linear construction site across a working area on average 80m wide. Initial vegetation removal would be followed by the presence of working areas, temporary access routes, excavation of open-cut trenches and a concentration of construction equipment and activity. There would be a temporary disruption to the field pattern, which would be most noticeable in areas of farmland where fields are small and bordered by intact hedgerows, such as north of Homey Bridge. The route of the underground cables has been chosen to avoid woodlands and mature trees where practicable, however, the works would require the removal of some trees and hedgerows. The size/scale of change would be large but due to the rolling landform and high woodland and tree cover, the effects would only be experienced over a small geographical area. The trenchless crossing under the Box Valley would avoid loss of valley floor vegetation, including the valley floor grasslands, although there would still be a requirement for an access across the river.

- 2.5.5 Protected Lanes have wherever practicable been avoided during the development of the route, but some would need to be used by construction vehicles, which may require trimming of vegetation to facilitate sightlines at bellmouths. The assessment on Protected Lanes can be found in ES Chapter 8: Historic Environment (**application document 6.2.8**).
- 2.5.6 On completion of the works, vegetation would be reinstated with the exception of trees which could not be replanted over the underground cables.
- 2.5.7 The indirect effects on the landscape resulting from the construction activities would include a loss of scenic quality, and sense of tranquility/rural isolation, which would affect a linear swathe of the AONB between Whitestreet Green and Brick Kiln Hill as evidenced by viewpoint E-02. Due, however, to the rolling landform and high coverage of woodland and trees found across much of the northern part of the AONB, the effect on the visual character of the wider landscape to the north and south would be limited. As evidenced by viewpoints E-04, E-06, E-07, E-08, E2.11, E2.5, and E2.10, E2.14 and E2.17, some of which are within approximately 1km of the LoD, the construction activities would either not be visible or be only just perceptible.
- 2.5.8 For assessment purposes, it is assumed that construction of the trenchless crossing of the Box Valley may include overnight working. This would require night time lighting of the working areas on both sides of the trenchless crossing but is likely to be an exceptional and infrequent occurrence.
- 2.5.9 Construction of the 400kV underground cables would also locally affect views out from the AONB. The works would be most noticeable from the part of the AONB to the north and north-west of Polstead as evidenced by viewpoint E-10, which also records that construction of the Dedham Vale East CSE compound would also be visible. From the edge of the AONB near Leavenheath, views would be restricted to occasional gaps in the tall roadside hedgerows which line Brick Kiln Lane and the works, where visible, would also be seen in the context of the existing overhead lines as well as the commercial orchards and polytunnels associated with Boxford Fruit Farm.
- 2.5.10 Overall, although the construction activities would be temporary, short term, and reversible, it is anticipated that the effect on the landscape would be adverse and the magnitude of change would be large within approximately 1km of the LoD reducing to small when experienced in the wider context of the AONB. Taking account of the high landscape sensitivity, the overall construction effects of the project on the landscape within the AONB would be **major adverse (significant)** locally within approximately 1km of the LoD, reducing to **minor adverse (not significant)** for the AONB as a whole.

Operation Year 1

- 2.5.11 The new 400kV overhead line within the setting of the AONB (as defined in Annex A: Dedham Vale AONB Approach and Identification of Setting Study (**application document 6.3.6.2.1**)) would be noticeable from the part of the AONB to the north and north-west of Polstead as evidenced by viewpoint E-10, which also records potential visibility of the Dedham Vale East CSE compound. The new 400kV pylons would increase the proportion of available views occupied by overhead line infrastructure. From the edge of the AONB near Leavenheath, views would be restricted to occasional gaps in the tall roadside hedgerows which line Brick Kiln Lane. The new 400kV pylons would also be seen in the context of the existing 400kV overhead line as well as the commercial orchards and polytunnels associated with Boxford Fruit Farm.

- 2.5.12 The removal of the existing 132kV overhead line in association with the 400kV underground cables and trenchless crossing of the Box Valley, would reduce the extent and influence of high voltage electricity infrastructure and have a beneficial effect on the landscape within the northern part of the AONB, particularly the small-scale wooded valley of the River Box and the wider landscape setting of Polstead Park. The only component of the 400kV underground cables which would remain apparent in the landscape throughout the operational phase are the cable joints and link pillars. As described in ES Chapter 4: Project Description (**application document 6.2.4**), the size of these structures means that their effect on the landscape of the AONB would be limited.
- 2.5.13 The degree of beneficial effect from removing the existing 132kV overhead line must be balanced against the continued presence of the existing 400kV overhead line and the additional 400kV pylons in the setting of the AONB. The immediate post-construction effects of the undergrounding also have to be considered when judging the degree of beneficial effect as these would continue to adversely affect the landscape. At Year 1, the removal and reinstatement of temporary construction compounds, working areas and access routes would reduce the overall perceptible disturbance. Vegetation would be reinstated along the former construction corridor as described in the LEMP (**application document 7.8**) but at Year 1 this planting would be immature and the areas within the LoD previously used for construction would be noticeable within the rural farmland. The absence of trees which were removed during construction would also be noticeable and locally affect the character of the landscape. Due, however, to the low-level nature of the effects and the high tree and woodland cover across the northern part of the AONB, the extent of the indirect effects on the visual character and scenic quality of the landscape would be very localised.
- 2.5.14 On balance, it is anticipated that the effect on the landscape would be adverse and the magnitude of change would be small locally within approximately 1km of the LoD, reducing to negligible for the AONB as a whole. Taking account of the high landscape sensitivity, the overall anticipated effects would be **minor adverse (not significant)** locally within approximately 1km of the LoD and **neutral (not significant)** for the AONB as a whole.

Operation Year 15

- 2.5.15 The only component of the project anticipated to result in a change to the assessed effects at Year 1 is the 400kV underground cables. This is due to the maturing of embedded and reinstatement planting.
- 2.5.16 By Year 15, the reinstatement planting would be maturing and the landscape would be returning to its existing character. The adverse effects on the landscape anticipated at Year 1 would diminish and the beneficial effects of removing the existing 132kV overhead line and installing underground cables and the trenchless crossing of the Box Valley would be increasingly experienced. The benefits would however continue to be moderated by the presence of the existing 400kV overhead line and new 400kV overhead line within the setting of the AONB particularly to the north and north-west of Polstead.
- 2.5.17 It is anticipated that the effect on the landscape would be beneficial and the magnitude of change would be medium-small locally within approximately 1km of the LoD, reducing to small when experienced in the wider context of the AONB. Taking account of the high landscape sensitivity, the overall anticipated operational effects of the project on the character of this part of the AONB would be **moderate beneficial (significant)** locally

within approximately 1km of the LoD, reducing to **minor beneficial (not significant)** for the AONB as a whole.

Summary

- 2.5.18 The preceding assessment has identified potentially significant direct and indirect effects on the landscape of the AONB, including its natural beauty indicators during both the construction phase (short term adverse) and operational phase (long term beneficial).
- 2.5.19 During construction there would be significant direct and indirect adverse effects on the landscape of the AONB. This would be mainly due to the scale of the construction activities associated with the 400kV underground. The natural beauty indicators of the AONB - notably scenic quality, relative wildness and relative tranquillity would be adversely affected. Given however that these significant adverse effects would be experienced relatively locally within approximately 1km of the LoD and would be short term, temporary and mainly reversible, it is not considered that the overall integrity of the AONB would be affected.
- 2.5.20 At Year 1 of operation there would be some adverse indirect effects on the landscape resulting from the immediate post-construction effects of the undergrounding and the presence of the new 400kV overhead line in the setting of the AONB, but these effects are not anticipated to be significant.
- 2.5.21 By Year 15, the reinstatement planting would be returning the landscape to its current character and the benefits of removing the existing 132kV overhead line in association with the underground cables and trenchless crossing of the Box Valley would be apparent. These beneficial effects are anticipated to be significant within approximately 1km of theLoD, reducing to not significant for the AONB as a whole.
- 2.5.22 Given the long term beneficial nature of the likely effects associated with the removal of the existing 132kV overhead line, the integrity of the wider AONB would not be compromised. The reduction in the presence of high voltage electricity infrastructure within the northern part of the AONB, specifically within the valley of the River Box and wider landscape setting of Polstead Hall, would enhance the overall landscape within the AONB and contribute positively to its natural beauty indicators.

3. Special Landscape Areas

3.1 Introduction

- 3.1.1 SLA is a non-statutory local designation defined within the current local planning policy for Babergh and Mid Suffolk district. The SLA were originally defined within the Suffolk County Council Structure Plan (2001). Subsequently these were further defined through the Babergh District Council Local Plan (2006) as Saved Policy CR04.
- 3.1.2 Babergh and Mid Suffolk District Councils are currently working together to prepare the Babergh and Mid Suffolk Joint Local Plan. The draft Joint Local Plan (2020) lists Policy CR04 as superseded with the relevant superseding policy being LP19 Landscape. The SLA are no longer referred to within that policy which instead refers to the Council's Joint Landscape Guidance (Suffolk County Council, 2011a).
- 3.1.3 Once adopted, the Joint Local Plan will replace all previously adopted Local Plans and Core Strategies for Babergh and Mid Suffolk District Councils. The Joint Local Plan was submitted to the Secretary of State for Examination on 31 March 2021 but has been delayed. As such, it is now no longer anticipated that the emerging Joint Local Plan will be adopted before the submission of the application for development consent. Therefore, it has been agreed with the relevant planning authorities that consideration needs to be given to the SLA in the assessment.
- 3.1.4 There is no available documentation relating to the reasons for the designations of these areas of landscape.
- 3.1.5 Much of Braintree District was historically defined as an SLA under Policy RLP 79 Special Landscape Areas (Braintree District Council, 2011). These areas were recognised for their high quality derived from a combination of '*natural features including topography, vegetation cover and water and river features*'. The SLA designation was replaced with the LCA in the Braintree District Council Local Plan (2022). Therefore, the former Braintree District Council SLA is redundant and therefore not considered further within the assessment. This has been confirmed in meetings with Braintree District Council.

3.2 Scope

- 3.2.1 There are four SLA within the study area, as defined in the Babergh and Mid Suffolk districts. The boundaries of these SLA typically relate to river valleys and have been drawn to follow physical features on the ground, e.g., roads, hedgerows etc. Their extent within the study area is as follows:
- The Gipping Valley from Chantry to Elmsett;
 - The Brett Valley from the AONB to Semer;
 - The Box Valley from the AONB to Great Waldingfield; and
 - The Stour Valley from the AONB to Great Cornard.

3.3 Gipping Valley SLA

Baseline

- 3.3.1 Section AB: Bramford Substation/Hintlesham passes through the southern part of this SLA which within the 5km study area for the project, extends from Chantry on the western edge of Ipswich, north-west to Flowton and Elmsett. To the south it extends as far as Chattisham. The SLA includes much of the Belstead Brook catchment, extending from the river valley onto the surrounding plateau farmland. The settled farmland is set within gently undulating valleys and characterised by blocks and linear belts of woodland including at Hintlesham Woods to the west, including Wolves Wood and Ramsey Wood. It does not include Bramford Substation.
- 3.3.2 Within the study area at a county level (Suffolk County Council, 2011), the landscape of this part of the SLA is characterised as Rolling Valley Farmlands (LCA 1), Ancient Plateau Claylands (LCA 2) and Ancient Estate Claylands (LCA 4). A small area north of Washbrook is characterised as Plateau Farmlands (LCA 3). The key characteristics of these landscape character types and their susceptibility to the project are presented in Appendix 6.3: Assessment of Effects on Landscape Character (**application document 6.3.6.3**).

Landscape Sensitivity

- 3.3.3 The Gipping Valley SLA is locally designated and as such the value of the landscape is considered to be high.
- 3.3.4 The landscape characteristics of the SLA which are more susceptible to loss or damage resulting from the project, include the areas of smaller-scale fields bordered by species-rich hedgerows and hedgerow trees, the small, wooded tributary valleys of Belstead Brook (such as Spring Brook), remnant parkland associated with Hintlesham Hall and the landscape setting of the historic buildings.
- 3.3.5 Away from the valleys, the larger scale of the farmland means that it is better able to accommodate the large size of the pylons without detrimental effects on landscape character. The many woodlands, plantations, shelterbelts, and tree belts within the SLA also provide opportunities to screen and visually integrate the lower parts of the pylons into the landscape.
- 3.3.6 The presence of multiple transmission and distribution lines close to Bramford Substation to the north-east of the SLA locally reduces the susceptibility of the landscape to the project, as scenic quality and rural character has already been compromised. Other discordant elements in the rural landscape which reduce its susceptibility are the main roads, including the A12 and A14, the golf course landscape at Hintlesham Golf Club and the urban fringe land uses associated with the urban edge of Ipswich and A14 road corridor.
- 3.3.7 Based on the above, the susceptibility of the landscape within the SLA to the project is considered to be medium. When combined with the high value, the sensitivity of the SLA to the project is considered to be medium-high.

Assessment of Effects

- 3.3.8 The landscape within this SLA would not be affected by construction and/or operation of the GSP substation which is therefore not considered. The landscape within the SLA would be directly and indirectly affected by the dismantling and removal of the existing 132kV overhead line, construction and operation of the new 400kV overhead line and modification/realignment of the existing 400kV overhead line.

Construction

Main Project

- 3.3.9 Dismantling and removal of the existing 132kV overhead line and construction of the new overhead line would directly affect the landscape within the SLA but the effects would be short term and require little vegetation removal. A small working area around each pylon would be required and these would be accessed by temporary access routes. Most of the work is likely to be at ground level with some limited at-height working, which would include the use of mobile cranes. Movement of vehicles and plant along the A1071, Chattisham Lane, Lower Barn Road, The Street, Church Hill and temporary access routes would introduce some additional visual and noise disturbance across the SLA.
- 3.3.10 The upper parts of the taller equipment would be visible from higher and more open parts of the SLA but the effects on the landscape would be limited due to the size/scale of the works and the intervening distances. Construction of the larger 400kV pylons would be noticeable across a wider geographical area than the dismantling and removal of the smaller 132kV pylons. This would include an area of farmland to the north-west of Ramsey Wood which is currently unaffected by high voltage electricity infrastructure.
- 3.3.11 The indirect effects would be some localised disruption to the more enclosed and tranquil parts of the SLA with a reduction in scenic quality and sense of rural isolation, including the farmland to the north-west of Ramsey Wood which is currently unaffected by high voltage electricity infrastructure. These effects would, however, be short term and temporary and would be in the context of the existing overhead lines.
- 3.3.12 It is anticipated that the effect on the landscape would be adverse and the magnitude of change would be medium-small. Taking account of the medium-high landscape sensitivity, the overall anticipated construction effects of the project on the landscape within the SLA would be **minor adverse (not significant)**.

Operation Year 1

Main Project

- 3.3.13 The landscape would be indirectly affected by the presence of the larger pylons on the new 400kV overhead line and the modifications/realignment of the existing 400kV overhead line, including a section of line to the north-west of Ramsey Wood. This would increase the proportion of available views occupied by overhead line infrastructure within the SLA but would be seen in the context of multiple converging overhead lines which would moderate the effects on the visual character and overall scenic quality of the landscape.
- 3.3.14 The section of new 400kV overhead line north-west of Ramsey Wood, would be in an area of rural farmland on the western edge of the SLA which is currently unaffected by high voltage electricity infrastructure. This would increase the geographical extent of the

SLA which would be affected by overhead lines, although its location away from the edge of the plateau would reduce its potential visibility in views into/out of the SLA. The woodlands which are characteristic feature of the landscape would also limit the geographical area affected. With increasing distance, the pylons would be less perceptible.

- 3.3.15 It is anticipated that the effect on the landscape would be adverse, and the magnitude of change would be medium within approximately 1km of the LoD, reducing to medium-small when experienced in the wider context of the SLA. Taking account of the medium-high landscape sensitivity, the overall operational effects of the project on the landscape within the SLA at Year 1 would be **moderate adverse (significant)** locally within approximately 1km of the LoD on the section of line to the north-west of Ramsey Wood, reducing to **minor adverse (not significant)** for the SLA as a whole.

Proposed Mitigation

Main Project

- 3.3.16 In addition to the embedded measures, the following planting for ecological mitigation is proposed:
- New woodland planting between Wolves Wood and Ramsey Wood (MM09) (just outside the SLA); and
 - New woodland planting south-west of Ramsey Wood (MM10) (just outside the SLA).

Operation Year 15 (With Mitigation)

Main Project

- 3.3.17 The new section of 400kV overhead line to the north-west of Ramsey Wood would continue to extend the influence of high voltage electricity infrastructure within the SLA, affecting the character of views and overall scenic quality. However, by Year 15, the woodland planting between Wolves Wood and Ramsey Wood would be maturing and although just outside the SLA, would help to screen and visually integrate the new infrastructure into the wider landscape and lessen its effect on views out from the SLA.
- 3.3.18 It is anticipated that the effect on the landscape would continue to be adverse, but the magnitude of change would reduce to medium-small locally within approximately 1km of the LoD on the section of line to the north-west of Ramsey Wood and small when experienced in the wider context of the SLA. Taking account of the medium-high landscape sensitivity, the overall operational effects of the project on the landscape within the SLA at Year 15 would reduce to **minor adverse (not significant)** both locally within approximately 1km of the LoD and for the SLA as a whole.

3.4 Brett Valley SLA

Baseline

- 3.4.1 Most of Section C: Brett Valley and Section D: Polstead passes through this SLA which within the 5km study area for the project, extends north from the edge of the AONB along the Brett Valley as far as Semer. The area includes the floor and sides of the Brett Valley including the edge of the surrounding plateau. Grazing on the wetter soils of the valley floor gives way to arable cultivation on the valley sides. Blocks of ancient woodland

including Tom's Wood, Raydon Great Wood and Layham Grove are a consistent landscape feature, particularly on the upper valley slopes, where they frame views into and out of the SLA.

- 3.4.2 Within the study area at a county level (Suffolk County Council, 2011) the upper valley sides and plateau edge are characterised as Rolling Valley Farmlands (LCA 1), Ancient Estate Claylands (LCA 4) and Ancient Rolling Farmlands (LCA 6). The smaller farmland along the valley floor of the River Brett south of Hadleigh is characterised as Suffolk Valley Meadowlands (LCA 5).
- 3.4.3 The key characteristics and assessment of effects on these landscape character types are presented in ES Appendix 6.3: Assessment of Effects on Landscape Character (**application document 6.3.6.3**).

Landscape Sensitivity

- 3.4.4 The Brett Valley SLA is locally designated and as such the value of the landscape is considered to be high.
- 3.4.5 The landscape characteristics of the SLA which are more susceptible to loss or damage resulting from the project include the areas with steeper more complex landform for example at Constitution Hill and Broom Hill, the small to medium-sized fields bordered by hedgerows with hedgerow trees and the pastures along the valley floor. Away from the valley, the random pattern of ancient field enclosure with species-rich hedgerows and winding lanes is susceptible to loss, although the generous cover of small woodlands and hedgerow trees provide opportunities to screen and visually integrate the lower parts of the pylons into the landscape.
- 3.4.6 Discordant elements which reduce the susceptibility of the landscape to the project include the existing 132kV and 400kV overhead lines.
- 3.4.7 Based on the above, the susceptibility of the landscape within the SLA to the project is considered to be medium-high. When combined with the high value, the sensitivity of the SLA to the project is considered to be high.

Assessment of Effects

- 3.4.8 The landscape within this SLA would not be affected by construction and/or operation of the GSP substation which is therefore not considered. The landscape within the southern part of the SLA would be directly and indirectly affected by the removal of the existing 132kV overhead line, and construction and operation of the new 400kV overhead line.

Construction

Main Project

- 3.4.9 Dismantling and removal of the existing 132kV overhead line and construction of the new overhead line would directly affect the landscape within the SLA but the effects would be short term and require little vegetation removal. A small working area around each pylon would be required and these would be accessed by temporary access routes. Most of the work is likely to be at ground level with some limited at-height working, which would include the use of mobile cranes. Movement of vehicles and plant along the A1070, A1071, Overbury Hall Road, Clay Lane, Pond Hill Road, and temporary access routes would introduce some additional visual and noise disturbance across the SLA.

- 3.4.10 The upper parts of the taller equipment would be visible from the higher and more open parts of the SLA but the effects on the landscape would be limited due to the size/scale of the works and the intervening distances. Construction of the larger 400kV pylons would be noticeable across a wider geographical area than the dismantling and removal of the smaller 132kV pylons.
- 3.4.11 The indirect effects would be some localised disruption to the more enclosed and tranquil parts of the SLA with a reduction in scenic quality and sense of rural isolation. These effects would, however, be short term and temporary and would be in the context of the existing overhead lines.
- 3.4.12 It is anticipated that the effect on the landscape would be adverse, and the magnitude of change would be small. Taking account of the high landscape sensitivity, the overall anticipated construction effects of the project on the landscape within the SLA would be **minor adverse (not significant)**.

Operation Year 1

Main Project

- 3.4.13 The landscape would be indirectly affected by the removal of the existing 132kV overhead line and the presence of the new 400kV overhead line, which would introduce noticeably larger pylons along broadly the same route as the existing 132kV overhead line. The new 400kV pylons would increase the proportion of available views occupied by high voltage electricity infrastructure within the SLA but would be in the context of the continuing presence of the existing 400kV overhead line which would moderate the overall effect on the visual character and overall scenic quality of the landscape. As evidenced by viewpoints C-07 and D-02, the size/scale of change would be small as pylons are already a skyline element within the SLA.
- 3.4.14 It is anticipated that the effect on the landscape would be adverse, and the magnitude of change would be small. Taking account of the high landscape sensitivity, the overall operational effects of the project on the landscape within the SLA at Year 1 would be **minor adverse (not significant)**.

Operation Year 15

Main Project

- 3.4.15 The presence of the new 400kV overhead line when seen alongside the existing 400kV overhead line would continue to slightly intensify the presence of high voltage electricity infrastructure in the SLA.
- 3.4.16 It is anticipated that the effect on the landscape would be adverse, and the magnitude of change would continue to be small. Taking account of the high landscape sensitivity, the overall operational effects of the project on the landscape the SLA at Year 15 would continue to be **minor adverse (not significant)**.

3.5 Box Valley SLA

Baseline

- 3.5.1 Section F: Leavenheath/Assington passes to the south of this SLA which within the 5km study area extends from the northern edge of the AONB near Stone Street northwards to Great Waldingfield.
- 3.5.2 The SLA is centred around the valley of the River Box and its tributaries. The farmland displays a mix of small, enclosed pastures and arable fields in the valleys and larger scale, more open arable farmland on the upper slopes and plateau. Woodland is mainly associated with the lower valley slopes but the high hedgerow and tree cover across the farmland imparts a well-wooded character. The historic village of Boxford is situated in the valley close to the boundary with the AONB where the farmland of the valley floor is mainly pastoral and has a high tree cover which creates an enclosed intimate quality.
- 3.5.3 Within the study area at a county level (Suffolk County Council, 2011) the landscape of much of the SLA is characterised as Ancient Rolling Farmlands (LCA 6) and Rolling Valley Farmlands (LCA 1).
- 3.5.4 The key characteristics and assessment of effects on these landscape character types are presented in ES Appendix 6.3: Assessment of Effects on Landscape Character (**application document 6.3.6.3**).

Landscape Sensitivity

- 3.5.5 The Box Valley SLA is locally designated and as such the value of the landscape is considered to be high.
- 3.5.6 The landscape characteristics of the SLA which are more susceptible to loss or damage resulting from the project include the valley landscapes with their more complex landform and steeper slopes, small enclosed pastures and high coverage of woodland and trees.
- 3.5.7 Away from the valleys the high coverage of species-rich hedgerows is susceptible to loss, although the generous cover of small woodlands and hedgerow trees provide opportunities to screen and visually integrate the lower parts of the pylons into the landscape.
- 3.5.8 There are few discordant elements to reduce the susceptibility of the landscape to the project.
- 3.5.9 Based on the above, the susceptibility of the landscape within the SLA to the project is considered to be high. When combined with the high value, the sensitivity of the SLA to the project is considered to be high.

Assessment of Effects

- 3.5.10 The landscape within this SLA would not be affected by construction and/or operation of the GSP substation which is therefore not considered. There are no components of the project within this SLA but the landscape would be indirectly affected by the dismantling and removal of the existing 132kV overhead line, and construction and operation of the new 400kV overhead line.

Construction

- 3.5.11 The southernmost part of the Box Valley SLA lies within 1km of the project and within the setting of the AONB as defined in Annex A: Dedham Vale AONB Approach and Identification of Setting Study (**application document 6.3.6.2.1**). There may be some slightly increased visual and noise disturbance from construction vehicles and plant using the A1071 but this is in the context of the existing traffic. There may also be some distant views out from the SLA towards the dismantling and removal of the existing 132kV overhead line and construction of the new 400kV overhead line but due to the intervening landform and high woodland and tree cover, the size/scale of change would be small. Construction of the 400kV underground cables and trenchless crossing of the Box Valley would not be visible.
- 3.5.12 It is anticipated that the effect on the landscape would be adverse, and the magnitude of change would be negligible. Taking account of the high landscape sensitivity, the overall construction effects of the project on the landscape within the SLA would be **neutral (not significant)**.

Operation Year 1

Main Project

- 3.5.13 The presence of the new 400kV overhead line when seen alongside the existing 400kV overhead line would slightly intensify the presence of high voltage electricity infrastructure in views out from the SLA to the south-west and south-east. However, given the distance and intervening woodland and tree cover, there would be little effect on the character of the landscape within the SLA as the composition and character of the views would not fundamentally change and the geographical area affected would be small.
- 3.5.14 Views to the south would benefit from the removal of the existing 132kV overhead line in association with the undergrounding through the AONB. The degree of beneficial effect would be moderated by the continued presence of the existing 400kV overhead line and the fact that the existing 132kV pylons are not prominent in existing views out from the SLA, so their absence would not be very noticeable.
- 3.5.15 It is anticipated that the effect on the landscape would be beneficial, and the magnitude of change would be small. Taking account of the high landscape sensitivity, the overall construction effects of the project on the landscape within the SLA at Year 1 would be **minor beneficial (not significant)**.

Operation Year 15

Main Project

- 3.5.16 The removal of the existing 132kV overhead line in association with the new 400kV overhead line and 400kV undergrounding would continue to affect views out from the SLA and indirectly have an overall beneficial effect on the landscape within the SLA.
- 3.5.17 It is anticipated that the effect on the landscape would be beneficial, and the magnitude of change would be small. Taking account of the high landscape sensitivity, the overall operational effects of the project on landscape within the SLA at Year 15 would be **minor beneficial (not significant)**.

3.6 Stour Valley SLA

Baseline

- 3.6.1 Section F: Leavenheath/Assington and Section G: Stour Valley pass through the central part of this SLA which within the 5km study area for the project, extends from the western edge of Dedham Vale AONB in Section F northwards to (but excluding) Great Cornard. Because the county boundary between Suffolk and Essex follows the course of the River Stour, only the valley floor and valley side to the east of the river (on the Suffolk side) are included within the SLA.
- 3.6.2 Much of the SLA falls within the SVPA (aside from its most northern and north-eastern extents). It is a settled farmland landscape and includes part of the village of Bures St Mary and many dispersed dwellings and farmsteads. Larger blocks of woodlands are found to the east of the SLA and include Mumford's Wood and Assington Thicks.
- 3.6.3 Within the study area at a county level (Suffolk County Council 2011) the landscape of much of the SLA is characterised as Ancient Rolling Farmlands (LCA 6). The eastern side of the Stour Valley falls within the linear Rolling Valley Farmlands (LCA 1) and there are small areas of Valley Meadowlands (LCA 5) along the valley floor. This consistent combination of the Rolling Valley Farmlands and Valley Meadowlands is characteristic of the south Suffolk river valleys and contributes substantially to the distinctive character of the district.
- 3.6.4 The key characteristics and assessment of effects on these landscape character types are presented in ES Appendix 6.3: Assessment of Effects on Landscape Character (**application document 6.3.6.3**).

Landscape Sensitivity

- 3.6.5 The Stour Valley SLA is locally designated and as such the value of the landscape is considered to be high.
- 3.6.6 The landscape characteristics of the SLA which are more susceptible to loss or damage resulting from the project include the rolling landform of the valley side, the organic pattern of small and medium-sized fields bordered by species-rich hedgerows on the lower slopes, the setting of the many historic settlements and farmsteads, and the long views out and across the Stour Valley.
- 3.6.7 Characteristics which increase the susceptibility of the landscape to the project include the strong visual relationship between the valley sides and the valley floor as this could be diminished by the presence of large pylons with adverse consequences for the character and quality of the landscape within the SLA.
- 3.6.8 On the higher valley sides the flatter landform and larger scale farmland is better able to accommodate the large size of the pylons without detrimental effects on landscape character.
- 3.6.9 Woodlands including Appletree Wood, Assington Thicks, Mumford's Wood and many small unnamed woodlands are dispersed throughout the SLA and provide opportunities to screen and visually integrate the lower parts of the pylons into the landscape.
- 3.6.10 Discordant elements which reduce the susceptibility of the landscape to the project include the existing 132kV and 400kV overhead lines and the two telecommunications

towers near Yorley Farm which are prominent on the skyline. Other discordant elements are the B1508 and passing trains on the Sudbury Branch Railway Line.

- 3.6.11 Based on the above, the susceptibility of the landscape within the SLA to the project is considered to be medium-high. When combined with the high value, the sensitivity of the SLA to the project is considered to be high.

Assessment of Effects

- 3.6.12 The landscape within this SLA would not be affected by construction and/or operation of the GSP substation which is therefore not considered. The landscape within the central part of the SLA would be directly and indirectly affected by the dismantling and removal of the existing 132kV overhead line, and construction and operation of the new 400kV overhead line, 400kV underground cables, trenchless crossing of the River Stour and Stour Valley East CSE compound.

Construction

- 3.6.13 Dismantling and removal of the existing 132kV overhead line and construction of the new 400kV overhead line across the central and eastern part of the SLA would directly affect the landscape but the effects would be short term and require little vegetation removal. A small working area around each pylon would be required and these would be accessed by temporary access routes. Most of the work is likely to be at ground level with some limited at-height working, which would include the use of mobile cranes. Movement of vehicles and plant along temporary access routes would introduce intermittent visual and noise disturbance into the farmland which would add to that from passing trains on the B1508 and nearby Sudbury Branch Railway Line (outside but close to the western edge of the SLA).
- 3.6.14 The upper parts of the taller equipment would be visible from higher valley sides but the effects on the landscape would be limited due to the size/scale of the works and the intervening distance. Construction of the larger 400kV pylons would be noticeable across a wider geographical area than the dismantling and removal of the smaller 132kV pylons. The indirect effects would be some localised disruption to the more enclosed and tranquil parts of the SLA and some localised loss of scenic quality but effects would, however, be short term and temporary and would be in the context of the existing overhead lines.
- 3.6.15 East of the River Stour, the activities required to construct the 400kV underground cables would noticeably alter the appearance of the local landscape within the LoD. The existing rural farmland would become a linear construction site across a working area on average 80m wide, whilst on the eastern valley side construction of the Stour Valley East CSE compound would be very noticeable. Initial vegetation removal would be followed by the presence of working areas, temporary access routes, excavation of open cut trenches and a concentration of construction equipment and activity. For assessment purposes, it is assumed the construction of the trenchless crossing under the River Stour and also under the Sudbury Branch Railway Line in the neighbouring LCA 7 may include overnight working. This would require night time lighting of the working areas on both sides of the trenchless crossing but is likely to be an exceptional and infrequent occurrence.
- 3.6.16 On completion of the works, vegetation would be reinstated with the exception of trees which could not be replanted over the underground cables. The size/scale of change would be large but would only be experienced over a small geographical area. The

adoption of trenchless crossing techniques would reduce the extent of amount of vegetation removal.

- 3.6.17 The indirect effects on the landscape from these construction activities would include a loss of scenic quality but this would be relatively contained by the high coverage of small woodlands and trees. Movement of vehicles and plant along the B1508, Colchester Road and temporary access routes would introduce some additional visual and noise disturbance across the SLA.
- 3.6.18 It is anticipated that the effect on the landscape would be adverse and the magnitude of change would be medium-large locally within approximately 1km of the LoD, reducing to small when experienced within the wider context of the SLA. Taking account of the high landscape sensitivity, the overall operational effects of the project on the landscape within the SLA are **moderate adverse (significant)** locally within approximately 1km of the LoD, reducing to **minor adverse (not significant)** for the SLA as a whole.

Operation Year 1

Main Project

- 3.6.19 There would be indirect effects on the landscape resulting from the removal of the existing 132kV overhead line and presence of the new 400kV overhead line which would be aligned broadly parallel and to the south of the existing 132kV overhead line across the central and eastern part of the SLA. The larger 400kV pylons would slightly increase the proportion of available views occupied by high voltage electricity infrastructure within the central and eastern part of the SLA. Given however that 400kV pylons are an existing landscape element, the size/scale of change would small.
- 3.6.20 Across the western part of the SLA, removal of the existing 132kV overhead line in association with the 400kV underground cables and trenchless crossings would reduce the extent and influence of high voltage electricity infrastructure on the landscape and have a beneficial effect on scenic quality. The only component of the 400kV underground cables which would remain apparent in the landscape throughout the operational phase are the cable joints and link pillars. As described in ES Chapter 4: Project Description (**application document 6.2.4**), the size of these structures means that their effect on the landscape of the SLA would be limited.
- 3.6.21 The landscape benefits derived from removing the existing 132kV overhead line have to be balanced against the presence of the existing 400kV overhead line and the new 400kV overhead line across the central and eastern part of the SLA. They also have to be balanced against the immediate post-construction effects of the undergrounding, which would continue to have an adverse effect on the landscape. At Year 1, the removal and reinstatement of temporary construction compounds, working areas and access routes would reduce the overall perceptible disturbance. Vegetation would be reinstated along the former construction corridor as described in the LEMP (**application document 7.8**) but at Year 1 this planting would be immature and the areas within the LoD previously used for construction would be noticeable within the rural farmland. The absence of trees which were removed during construction would also be noticeable and locally affect the character of the landscape.
- 3.6.22 Despite the low-level nature of the effects and the high tree and woodland cover, the former construction corridor would be noticeable across the valley as it ascends the valley

side and this would cause some loss of scenic quality which would moderate the beneficial effects of removing the existing 132kV overhead line.

- 3.6.23 The Stour Valley East CSE compound would be in a similar location to pylons on the 132kV overhead line which would be removed. Its presence in the landscape would be lessened due to localised screening by landform and small woodlands within the small tributary valley of the River Stour in which it is located and the resulting size/scale of change would be small. At Year 1, the embedded planting would be immature and provide little additional screening or visual integration of the infrastructure.
- 3.6.24 On balance, it is anticipated that the effect on the landscape would be beneficial and the magnitude of change would be small locally within approximately 1km of the LoD reducing to negligible for the SLA as a whole. Taking account of the high landscape sensitivity, the overall effects would be **minor beneficial (not significant)** locally within approximately 1km of the LoD and **neutral (not significant)** for the SLA as a whole.

Operation Year 15

Main Project

- 3.6.25 The removal of the existing 132kV overhead line and presence of the new 400kV overhead line across the central and eastern part of the SLA would continue to increase the influence of high voltage electricity infrastructure within the SLA, affecting the character of views and overall scenic quality but this would be in the context of the existing overhead lines and telecommunication towers.
- 3.6.26 By Year 15, the reinstatement planting associated with the 400kV underground cables would be maturing and the landscape would be returning to its existing character. Similarly, the embedded planting around Stour Valley East CSE compound would both screen and visually integrate it into the wider landscape. The adverse effects on the landscape anticipated at Year 1 would diminish and the beneficial effects of removing the existing 132kV overhead line across the western part of the SLA would be increasingly experienced.
- 3.6.27 It is anticipated that the effect on the landscape would be beneficial and the magnitude of change would be medium locally within approximately 1km of the LoD, reducing to small for the SLA as a whole. Taking account of the high landscape sensitivity, the overall effects would be **moderate beneficial (significant)** locally within approximately 1km of the LoD and **minor beneficial (not significant)** for the SLA as a whole.

3.7 Summary

- 3.7.1 The preceding assessment has identified potentially significant direct and indirect adverse and beneficial effects on the landscape of the SLA associated with the river valleys of the Gipping, Brett, Box and Stour during both the construction and operational phases.

Gipping Valley SLA

- 3.7.2 There would be some adverse direct effects on the landscape within this SLA during construction but these are not anticipated to be significant.
- 3.7.3 During operation, significant indirect landscape effects are anticipated at Year 1 due to the section of new 400kV overhead line to the north-west of Ramsey Wood, which is an

area that is currently unaffected by high voltage electricity infrastructure. These significant effects would be localised within approximately 1km of Ramsey Wood. By Year 15, with the maturing of woodland planting to the south-west of Bramford and between Wolves Wood and Ramsey Wood, these effects would reduce to not significant.

Brett Valley SLA

- 3.7.4 There would be some adverse direct and indirect effects on the landscape within this SLA during construction and operation due to the removal of the existing 132kV overhead line and introduction of the larger pylons on the new 400kV overhead line, but these are not anticipated to be significant.

Box Valley SLA

- 3.7.5 There would be some adverse indirect effects on the landscape within this SLA during construction but these are not anticipated to be significant.
- 3.7.6 During operation there would be some indirect beneficial effects on views out from this SLA due to the removal of the existing 132kV overhead line in association with the 400kV underground cables and trenchless crossing of the Box Valley. The degree of beneficial effect would be moderated by the continued presence of the existing 400kV overhead line and the fact that the existing 132kV pylons are not prominent in existing views out from the SLA, so their absence would not be very noticeable.

Stour Valley SLA

- 3.7.7 Significant direct and indirect construction effects on the landscape within this SLA are anticipated during construction, mainly due to the large scale of the construction activities associated with the 400kV underground cables and Stour Valley East CSE compound. These significant effects would be localised within approximately 1km of the LoD.
- 3.7.8 At Year 1 of operation, the beneficial effects of removing the existing 132kV overhead line in association with the immediate post-construction effects of the undergrounding and the presence of the new 400kV overhead line and Stour Valley East CSE compound, would result in indirect beneficial effects on the landscape, but these effects are not anticipated to be significant.
- 3.7.9 By Year 15, the reinstatement planting associated with the 400kV underground cables would be maturing and the landscape would be returning to its existing character. Similarly, the embedded planting around Stour Valley East CSE compound would both screen and visually integrate it into the wider landscape.
- 3.7.10 The beneficial effects of removing the existing 132kV overhead line in association with the underground cables and trenchless crossings would increase and are anticipated to be significant (beneficial) within approximately 1km of the LoD.

4. Conclusion

4.1 Summary of Significant Effects

Construction

- 4.1.1 Significant adverse landscape effects during construction are predicted for the AONB and Stour Valley SLA, however only a localised part of the designation within approximately 1km of the LoD would be affected. These significant effects would mainly be associated with the large scale of the construction activities associated with the 400kV underground cables compared to the smaller scale works to remove or construct pylons.

Operation

- 4.1.2 During operation, the only adverse significant effect would be at Year 1 within the Gipping Valley SLA due to the introduction of the section of new 400kV overhead line to the north-west of Ramsey Wood, which is an area that is currently unaffected by high voltage electricity infrastructure. By Year 15 of operation, the effects would reduce to not significant due to the maturing woodland around the south-western side of Bramford Substation.
- 4.1.3 Significant beneficial effects are predicted for the AONB and Stour Valley SLA from the removal of the existing 132kV overhead line in association with the 400kV underground cables and trenchless crossings.
- 4.1.4 Table 4.1 provides a summary of the results for each designated area. Where judgments refer to a distance from the LoD or to effects on the landscape within the LoD, this is to reflect the impacts of the works within the main construction or operational corridors.

Table 4.1 – Summary of Sensitivity, Magnitude of Change and Effects

Designation	Sensitivity	Magnitude			Assessment of Effect		
		Construction	Operation Year 1	Operation Year 15	Construction	Operation Year 1	Operation Year 15
Dedham Vale AONB	High	Large <1km of the LoD Small >1km of the LoD	Small <1km of the LoD Negligible >1km of the LoD	Medium-small <1km of the LoD Small >1km of the LoD	Major adverse (significant) <1km of the LoD Minor adverse (not significant) >1km of the LoD	Minor adverse (significant) <1km of the LoD Neutral (not significant) >1km of the LoD	Moderate beneficial (significant) <1km of the LoD Minor beneficial (not significant) >1km of the LoD
Gipping Valley SLA	Medium - high	Medium-small	Medium <1km of the LoD Medium-small >1km of the LoD	Medium-small <1km of the LoD Small >1km of the LoD	Minor adverse (not significant)	Moderate adverse (significant) <1km of the LoD Minor adverse (not significant) >1km of the LoD	Minor adverse (not significant)
Brett Valley SLA	Medium-high	Small	Small	Small	Minor adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Box Valley SLA	High	Negligible	Small	Small	Neutral (not significant)	Minor beneficial (not significant)	Minor beneficial (not significant)
Stour Valley SLA	High	Medium-large <1km of the LoD Small >1km	Small <1km of the LoD Negligible >1km of the LoD	Small	Moderate adverse (significant) <1km of the LoD Minor adverse (not significant) >1km of the LoD	Minor beneficial (not significant) <1km of the LoD Neutral (not significant) >1km of the LoD	Moderate beneficial (significant) <1km of the LoD Minor beneficial (not significant) >1km of the LoD

Page intentionally blank

National Grid plc
National Grid House,
Warwick Technology Park,
Gallows Hill, Warwick.
CV34 6DA United Kingdom

Registered in England and Wales
No. 4031152
nationalgrid.com