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Summary

Purpose of the Report

This report has been prepared in response to the Relevant Representations received from Natural England [RR-042] and the Dedham Vale Area of Outstanding Natural Beauty (AONB) and Stour Valley Partnership [RR-028] in respect of the impacts of the project on the natural beauty factors and special qualities of the AONB and how this may impact on the AONB's ability to deliver its statutory purpose to conserve and enhance natural beauty.

The assessment presented in Environmental Statement (ES) Chapter 6: Landscape and Visual [APP-074] and supporting document ES Appendix 6.2: Assessment of Effects on Designated Landscapes [APP-098] considered the natural beauty, character and special qualities, as part of the assessment on the Dedham Vale AONB. However, for transparency purposes, and as requested in the Relevant Representations [RR-042 and RR-028], the Applicant has produced a table at Appendix A of this report which sets out the assessment against each special quality.

The assessment of effects on the individual natural beauty factors and special qualities of the AONB presented in this report does not change the conclusions of the ES.

Assessment on Natural Beauty and Special Qualities

Appendix A of this report responds to Natural England's request to assess the effects on the six natural beauty factors and associated special qualities of the AONB as presented in the report entitled, Dedham Vale AONB Natural Beauty and Special Qualities and Perceived and Anticipated Risks (Alison Farmer Associates, 2016). The natural beauty factors and associated special qualities are listed in the first two columns of Appendix A. The exception is 'appeal to the senses', where the report did not provide an example of the special quality, so it has been taken from the Statement of Significance within the Dedham Vale AONB and Stour Valley Management Plan 2021 – 2026.

The six natural beauty factors are landscape quality, scenic quality, relative wildness, relative tranquillity, natural heritage features, and cultural heritage. Examples of special qualities include assemblage of features, rural charms and tranquillity, traditional land use patterns and historic sites and landscapes.

Summary of the Assessment

The Applicant acknowledges that there would be localised short term adverse effects on some of the special qualities of the AONB (notably perceptual qualities such as scenic quality, remoteness and tranquillity) during construction and that when taken together these effects are considered to be significant as noted in Paragraph 6.6.9 of ES Chapter 6: Landscape and Visual [APP-074] and paragraph 2.5.10 of ES Appendix 6.2 [APP-098]. However, these effects would occur in an area where these qualities are already undermined by the presence of the existing 132kV and 400kV overhead lines and by proximity to commercial fruit farming.

The construction activities would be sequenced and of a transient nature along a linear construction site which would be substantially screened by the rolling topography and high tree cover. They would also be temporary (up to four years) and reversible once the farmland has been restored and hedgerows reinstated. Also, there are no public roads through this part of the AONB and the only public right of way (PRoW) follows the Box Valley, so there are few public locations from where people would experience these effects.

Therefore, although there would be some temporary, localised effects during construction, these are not anticipated to impact on the ability of the AONB to deliver its statutory purpose.

As concluded in ES Chapter 6: Landscape and Visual [**APP-074**], there would be a long term significant beneficial effect to the AONB during operation from the removal of the 132kV overhead line in association with the construction and installation of the 400kV underground cables. This would result in one fewer overhead line within Dedham Vale AONB compared to the baseline.

The assessment of effects on the individual natural beauty factors and special qualities of the AONB presented in this report does not change the conclusions of the ES.

1. Introduction

1.1 Purpose of this Document

- 1.1.1 This report has been prepared in response to the Relevant Representations received from Natural England [RR-042] and the Dedham Vale Area of Outstanding Natural Beauty (AONB) and Stour Valley Partnership [RR-028] in respect of the impacts of the project on the natural beauty factors and special qualities of the AONB and how this may impact on the AONB's ability to deliver its statutory purpose to conserve and enhance natural beauty.
- 1.1.2 Both organisations have requested that the Applicant presents an assessment of the effects on the natural beauty factors and each of the special qualities of the AONB, as presented in the report entitled, Dedham Vale AONB Natural Beauty and Special Qualities and Perceived and Anticipated Risks (Alison Farmer Associates, 2016). The six natural beauty factors are landscape quality, scenic quality, relative wildness, relative tranquillity, natural heritage features, and cultural heritage. Examples of special qualities include assemblage of features, rural charms and tranquillity, traditional land use patterns and historic sites and landscapes.
- 1.1.3 Natural England [RR-042] has requested that effects on the natural beauty factors and each of the special qualities are described at construction, Year 1, and year 15 post construction. Both Natural England and the Dedham Vale AONB and Stour Valley Partnership acknowledge that the operational effects of the project on the landscape of the northern part of the AONB would be beneficial due to the removal of one of the two existing overhead lines from the landscape (the existing 132kV overhead line) in association with the undergrounding of the proposed 400kV cables.

1.2 Definitions

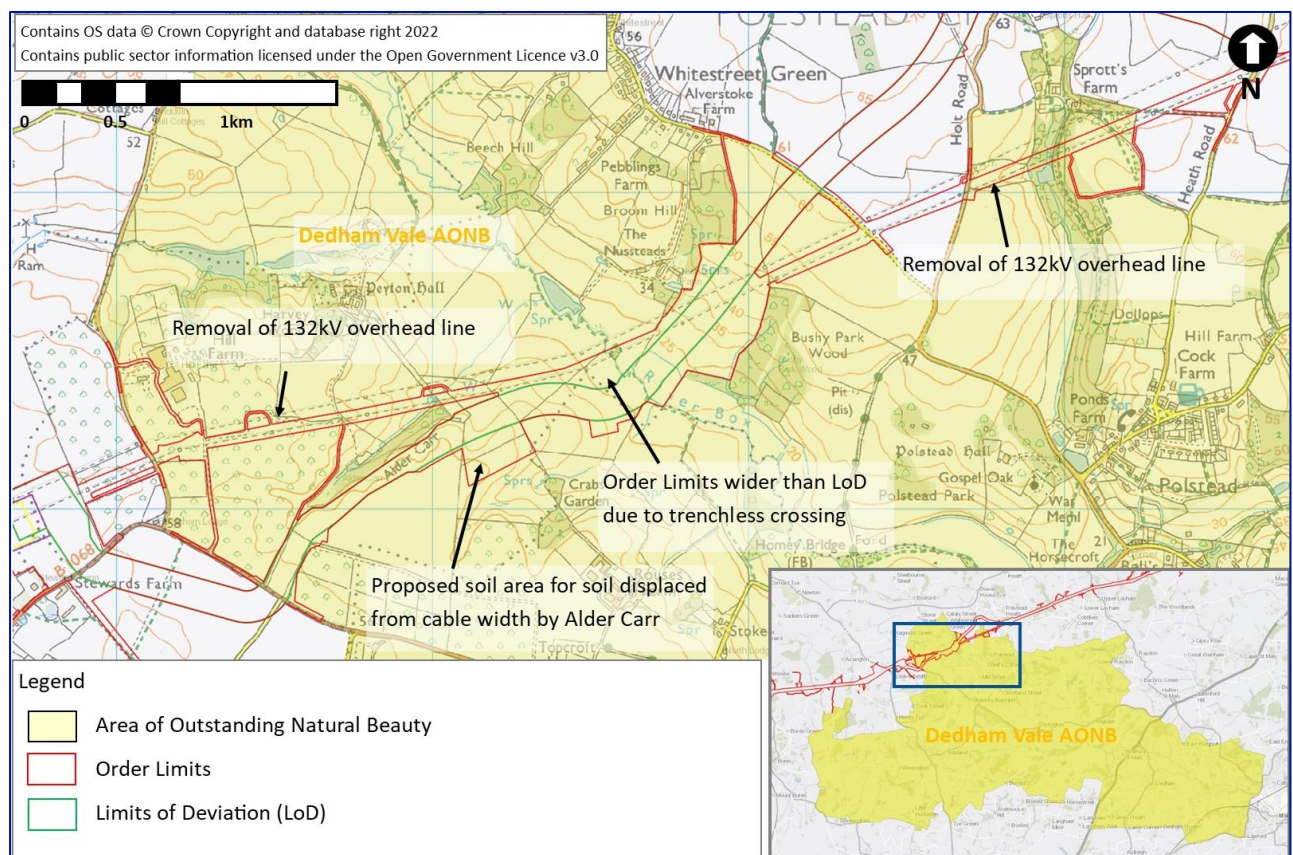
- 1.2.1 AONB are designated under Section 82 of the Countryside and Rights of Way (CROW) Act 2000. The CROW Act identifies the statutory purpose of AONBs is '*to conserve and enhance natural beauty*'.
- 1.2.2 The Dedham Vale AONB Natural Beauty and Special Qualities and Perceived and Anticipated Risks (Alison Farmer Associates (AFA), 2016), hereafter referenced as the AFA report (2016), presents evidence on the natural beauty and associated special qualities of the Dedham Vale AONB. The report references the relationship between the natural beauty factors defined by Natural England and the defined special qualities listed in the former Dedham Vale AONB and Stour Valley Management Plan 2016-2021 (Dedham Vale AONB and Stour Valley Project Area Partnership, 2016).
- 1.2.3 The AFA report (2016) sets out the factors which contribute to natural beauty and the associated special qualities so that the relationship between the two can be better understood. This is followed by evidence to support these factors and qualities and finally information on the perceived and anticipated risks to these qualities. It concludes that of the six natural beauty factors identified by Natural England, as contributors to natural beauty, Dedham Vale is '*particularly valued for its landscape quality, scenic qualities and cultural and artistic associations. These factors are especially strongly expressed and give rise to the area's unique character*'.
- 1.2.4 The natural beauty factors and associated special qualities are listed in the first two columns of Appendix A. The exception is 'appeal to the senses', where the report did not provide an example of the special quality, so it has been taken from the Statement of Significance within the Dedham Vale AONB and Stour Valley Management Plan 2021 – 2026.

2. Assessment

2.1 The Assessment in the Application for Development Consent

2.1.1 ES Chapter 6: Landscape and Visual [APP-074] and supporting document ES Appendix 6.2: Assessment of Effects on Designated Landscapes [APP-098], present the assessment of the effects of the project on the AONB. Paragraph 6.6.9 of ES Chapter 6: Landscape and Visual [APP-074] and paragraph 2.5.10 of ES Appendix 6.2 [APP-098], conclude that due to the scale of the construction activities, significant landscape and visual effects are anticipated during the construction phase. These could affect the landscape up to approximately 1km from the Order Limits, although in most places the affected area would be much smaller due to the screening afforded by the rolling topography and high tree cover (Figure 2.1). The Order Limits cover approximately 45ha of the AONB, which is 0.49% of the total area of the Dedham Vale AONB. The Order Limits include flexibility for application of the Limits of Deviation (LoD), therefore the working area would be less than 45ha.

Figure 2.1 – Order Limits and Limits of Deviation within Dedham Vale AONB



2.1.2 As noted in paragraph 2.5.10 of ES Appendix 6.2: Assessment of Effects on Designated Landscapes [APP-098], the effects of the construction activities would be temporary (up to four years during construction) and reversible once the farmland has been reinstated and hedgerows replanted and established. The works would move along the linear route and would not be intensively focussed in one place for a long period, (although a temporary access track and vegetation removal would be present for the duration of the works).

2.1.3 Paragraph 2.5.7 states that the part of the AONB which would be affected is small and lies between Whitestreet Green and Brick Kiln Hill. It includes a section of the tree lined valley of the River Box which would be constructed using trenchless crossing techniques limiting effects to a temporary construction access track. This method would allow vegetation/ landscape features to be retained with minimal requirement for reinstatement. The main

effects would be on the open arable fields and pastures. These currently display some decline in traditional farming practices with hedgerow loss and field amalgamation. The appearance of the arable fields varies throughout the year depending on the natural agricultural rotation.

- 2.1.4 The Landscape and Ecological Management Plan (LEMP) [APP-182] outlines the measures that would be undertaken to protect existing vegetation and outlines the assumptions around vegetation that would be removed and reinstated as part of the project. Compliance with the LEMP would be secured by way of Requirement 4 of the draft DCO [APP-034].
- 2.1.5 Section 8.1 of the LEMP [APP-182] explains that the general principle of reinstatement is that land used temporarily for construction would be reinstated where practicable (for example trees cannot be planted over the top of underground cables) to its pre-construction condition and use. For example, hedgerows would be reinstated to a similar, if not enhanced, quality to those that were removed. Tree and shrub planting would be implemented at the earliest opportunity and no later than by the first available planting season (November to end March) after that part of the authorised development to which the reinstatement planting works apply is first brought into operational use. The LEMP Appendix B: Vegetation and Reinstatement Plan [APP-184] presents the vegetation reinstatement and additional planting that is proposed as part of the project.
- 2.1.6 Therefore, ES Chapter 6: Landscape and Visual [APP-074] concludes that although there would be some short term significant adverse effects on some of the special qualities of the AONB during construction, there would be a long term significant beneficial effect to the AONB during operation from the removal of the 132kV overhead line in association with the construction and installation of the 400kV underground cables resulting in one fewer overhead line in the landscape.
- 2.1.7 Section 10.6 of the Planning Statement [APP-160] provides evidence for compliance with the relevant paragraphs of the National Policy Statement in relation to the AONB and concludes at paragraph 10.7.1 that the project has been developed in accordance with EN-1 and EN-5 and provides significant benefits outweighing the limited adverse effects identified.

2.2 Assessment of Effects on Natural Beauty and Special Qualities

- 2.2.1 The assessment presented in ES Chapter 6: Landscape and Visual [APP-074] and supporting document ES Appendix 6.2: Assessment of Effects on Designated Landscapes [APP-098] considered the natural beauty, character and special qualities of the AONB when considering the overall landscape assessment. However, for transparency purposes and as requested in the Relevant Representations from Natural England [RR-042] and the Dedham Vale AONB and Stour Valley Partnership [RR-028], the Applicant has produced further information from the assessment of the project in relation to each of the natural beauty factors and special qualities of the Dedham Vale AONB.
- 2.2.2 At the request of Natural England, the assessment presented at Appendix A focuses on the natural beauty factors and special qualities presented in the AFA report (2016). These are listed in the first two columns of Appendix A. The exception is 'appeal to the senses' where the AFA report did not provide an example of the special quality, so it has been taken from the Statement of Significance within the AONB Management Plan 2021 – 2026.
- 2.2.3 The assessment presented in this report focuses on construction and installation of the underground cables through the AONB and the associated LoD, which is where most of the visually intrusive construction activity would occur. This is because the works associated with dismantling and removal of the existing 132kV overhead line through the AONB would only be present at each pylon location for a very short period of time. The works would also be seen in the context of the existing 400kV overhead line, which has already affected the

nature of the views. ES Chapter 4: Project Description [**APP-072**] describes the key components of the project during construction and operation and also describes the assumed construction methodology in full.

3. Conclusion

3.1 Summary on Natural Beauty and Special Qualities

Summary of Construction Effects

- 3.1.1 The assessment presented at Appendix A identifies adverse effects on some of the natural beauty factors and special qualities of the AONB during construction (notably perceptual qualities such as scenic quality, remoteness and tranquillity) and that when taken together these effects are considered to be significant adverse, as noted in ES Appendix 6.2: Assessment of Effects on Designated Landscapes [APP-098]. However, these effects would occur in an area where these qualities are already undermined by the presence of the existing 132kV and 400kV overhead lines and by proximity to commercial fruit farming. The construction activities would be sequenced and of a transient nature along a linear construction site which would be largely screened by the rolling topography and high tree cover. They would also be temporary (up to four years) and reversible once the farmland has been restored and hedgerows reinstated.
- 3.1.2 The route of the underground cables has been selected to avoid locations from where the construction activity is less likely to be visible to sensitive receptors. There are few properties in the area and the only roads are around the edge of the AONB. The one public right of way (PRoW) is along the Box Valley where a trenchless crossing is proposed.
- 3.1.3 The route of the underground cables has also been carefully selected to avoid important ecological and landscape features where practicable. The farmland is mainly under pasture or in arable cultivation. Hedgerows are sparse, and there are few trees. No woodland or natural scrub would be lost. Very few individual trees or hedgerows would be removed, and hedgerows and trees would be replaced as part of the reinstatement at the end of construction. Semi natural ancient woodland at Dollops Wood, Bushy Park Wood and Broom Hill, and woodland at Alder Carr would be unaffected and would continue to contribute to the natural beauty of the AONB as well as provide natural screening of the construction activities.
- 3.1.4 Effects on the tree lined corridor of the River Box would be limited, as trenchless crossing is proposed at this location. Although there would still be a requirement for a temporary access route across the watercourse at this location which would be visible from the PRoW which follows the valley, the resultant effects would be very localised and would not have a significant impact on the wildlife or habitats which contribute to the natural beauty of the area. ES Chapter 7: Biodiversity [APP-075] concludes at Section 7.12 that, with embedded and good practice measures in place, there would be no residual significant adverse effects on biodiversity.
- 3.1.5 The area contains few known historic assets and has no specific associations with people or events. There is however potential for palaeoenvironmental deposits within the Box Valley. Section 8.12 of ES Chapter 8: Historic Environment [APP-076] concludes that there would be no significant adverse effects on the historic environment when measures outlined in the Outline Written Scheme of Investigation (OWSI) [AS-001] are in place.
- 3.1.6 From a scenic perspective, the works would take place in a part of the AONB which does not contain the assemblage of features and visual interest which inspired artists and writers and are the expression of an English lowland landscape or 'quiet idyll'. The woodlands and trees along the course of the River Box and grasslands within the narrow valley floor add visual interest and enclosure but the existing 132kV and 400kV overhead lines and proximity to intensive commercial fruit farming lessen the natural beauty of the area. Nevertheless, it

retains a sense of rural charm and tranquillity due to the absence of roads and settlement. There is limited light intrusion at night-time.

- 3.1.7 Once operational, the project would have long term benefits on the landscape and special qualities from the removal of the existing 132kV overhead line in association with the 400kV underground cables, resulting in one fewer overhead line in the landscape.
- 3.1.8 The assessment presented at Appendix A of this report concludes that the project would have an adverse effect on some of the AONB natural beauty factors and special qualities during construction, specifically on the sense of remoteness and tranquillity. This aligns with the assessment of effects on designated landscapes presented at Appendix 6.2 of the ES [APP-098]. Appendix 6.2 predicts significant adverse effects on the scenic quality and sense of tranquillity/ rural isolation of the landscape within approximately 1km of the Order Limits between Whitestreet Green and Brick Kiln Hill. However, these effects would occur in an area where these qualities are already undermined by the presence of the existing 132kV and 400kV overhead lines and by proximity to commercial fruit farming. 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 geographically limited. The absence of roads through this part of the AONB and presence of only one PRoW along the wooded Box Valley also means that there are few public locations from where the effects of the construction activities would be experienced.
- 3.1.9 ES Chapter 4: Project Description [APP-072] describes the assumed construction methodology and explains how the construction activities would be sequenced and of a transient nature along the linear construction site. They would also be temporary (up to four years) and reversible once the farmland has been restored and hedgerows reinstated. Therefore, although there would be temporary, localised effects during construction, these are not anticipated to impact on the ability of the AONB to deliver its statutory purpose.

Summary of Operation Effects

Year 1

- 3.1.10 The assessment presented at Appendix A identifies some minor adverse effects at Year 1. This is because although the farmland would be restored, hedgerows and trees would appear immature, and the former construction areas would still be noticeable at close range. These effects have however to be balanced against the beneficial effects that the absence of the existing 132kV overhead line would bring at Year 1 in terms of reducing the amount of electricity infrastructure in this part of the AONB.

Year 15

- 3.1.11 By Year 15, the combination of the mature hedgerows and maturing trees means that the landscape would be returned to its existing character and the landscape and visual benefits of removing the existing 132kV overhead line in association with the undergrounding of the proposed 400kV cables would be fully realised. This would bring about long term beneficial effects on some of the special qualities of the AONB as set out at Appendix A, particularly those related to perceptual qualities such as scenic quality, remoteness and tranquillity. This aligns with the conclusions of ES Chapter 6: Landscape and Visual [APP-074], which states that there would be a long term significant beneficial effect to the AONB from the removal of the 132kV overhead line in association with the proposed 400kV underground cables.

3.2 Statutory Purpose of the AONB

- 3.2.1 AONB are designated under Section 82 of the CRoW Act 2000 for the statutory purpose of conserving and enhancing their natural beauty. Public bodies and statutory undertakers including National Grid has a duty to consider the purposes of the AONB designation in decision making. This has led to embedded measure EM-E01 in the Register of Environmental Actions and Commitment [**APP-179**] to underground cables within Section E: Dedham Vale AONB. A further embedded measure, EM-P02, commits the project to removing the existing 132kV overhead line, would further reduce the effects of the project on the AONB.
- 3.2.2 ES Chapter 6: Landscape and Visual [**APP-074**] concludes that there would be significant long term beneficial effects on Dedham Vale AONB from the removal of the 132kV overhead line within the Box Valley. These effects would be more pronounced in close proximity to the project, within approximately 1km of the Order Limits between Polstead and Leavenheath.
- 3.2.3 The Applicant acknowledges that there would be short term adverse effects on the AONB and landscape during construction. However, these construction effects would occur in an area which is already affected by the presence of the existing 132kV and 400kV overhead lines and by commercial fruit farming. The effects would be temporary (approximately four years) and localised, with the landscape features being reinstated following construction. The absence of roads through this part of the AONB and presence of only one PRoW along the wooded Box Valley also means that there are few public locations from where the effects of the construction activities would be experienced.
- 3.2.4 Taking a worst case, and not taking into account the rolling topography and high tree cover which would help screen the construction activities, this represents a small proportion of the designated area (the Order Limits cover approximately 0.49% of the total area of Dedham Vale AONB). The Order Limits include flexibility for application of the LoD, therefore the working area would be less than 45ha. The remaining designated area would be unaffected. Therefore, although there would be temporary, localised effects during construction, these are not anticipated to impact on the ability of the AONB to deliver its statutory purpose.

3.3 Overall Conclusion

- 3.3.1 As concluded both in this report and in ES Chapter 6: Landscape and Visual [**APP-074**], the Applicant acknowledges that there would be short term adverse effects on some of the natural beauty factors and special qualities of the AONB (notably perceptual qualities such as scenic quality, remoteness and tranquillity) during construction and that when taken together these effects are considered to be significant. However, these effects would occur in an area where these qualities are already undermined by the presence of the existing 132kV and 400kV overhead lines and by proximity to commercial fruit farming. The effects would also be temporary (up to four years) and reversible once the farmland has been restored and hedgerows reinstated. The absence of roads through this part of the AONB and presence of only one PRoW along the wooded Box Valley also means that there are few public locations from where the effects of the construction activities would be experienced. Therefore, although there would be temporary, localised effects during construction, these are not anticipated to impact on the ability of the AONB to deliver its statutory purpose.
- 3.3.2 As concluded both in this report and in ES Chapter 6: Landscape and Visual [**APP-074**], there would be a long term significant beneficial effect to the AONB during operation from the removal of the 132kV overhead line in association with the proposed construction and installation of the 400kV underground cables. The assessment of effects presented in this report does not change the conclusions of the ES.

References

Alison Farmer Associates (2016) Dedham Vale AONB Natural Beauty and Special Qualities and Perceived and Anticipated Risks

Dedham Vale AONB and Stour Valley Project Area Partnership (2016) Dedham Vale AONB and Stour Valley Project Management Plan 2016-2021

Dedham Vale AONB and Stour Valley Project Area Partnership (2021) Dedham Vale AONB and Stour Valley Project Management Plan 2021-2026

Appendix A: Assessment on the Natural Beauty Factors and Special Qualities

Natural Beauty Factors/Considerations	Special Qualities	Supporting Evidence (from AFA report (2016))	Relevance to Affected Area	Potential Effects		
				Construction	Year 1 after Construction	Year 15 after Construction
Landscape Quality						
Intactness of the landscape in visual, functional and ecological perspectives	Lowland river valley i.e., intact valley unit	Valley profile and form: Gentle valley slopes and steeper tributary valleys with woodland give rise to a subtle but legible landscape. Distinction of land uses associated with the valley side (arable, woodland and settlement) and valley floor (pastures and grazing marsh) reinforce the legibility of the valley form. Heath and acid grassland occur in places reflecting the underlying geology and soils.	This section of the River Box which would be affected by the project is legible in the landscape, but the valley sides are covered with pastures and arable fields rather than woodland, although there are some trees and floodplain grassland along the valley floor.	The trenchless crossing under the River Box would avoid loss of valley floor vegetation, including the trees and some of the floodplain grassland. The presence of construction activities would temporarily reduce the legibility of the valley, although there would be little disruption to the valley landform.	At Year 1, the areas of reinstated marshy grassland in the valley floor would be establishing and the legibility of the valley in the landscape would be substantially restored.	By Year 15 the marshy grassland along the Box Valley would be established. The landscape would be returned to its existing character and the landscape and visual benefits of removing the existing 132kV overhead line in association with the underground cables would be realised.
The condition of the landscape's features and elements	Traditional land use patterns	Continuity and intactness: Sense of continuity in management over time giving rise to time depth and a visual unity. High degree of integrity - although there are a range of different spatial scales there are repeating elements within them. The presence of features including: <ul style="list-style-type: none">• Church towers• Parkland trees and wood pasture/majestic oaks• Small woods on the steep slopes• Coppiced hazel• Hedgerows and hedgerow oaks• Rural barns nestled into folds in landform• Sunken lanes The high concentration/frequency of these features and their distribution is grounded in the traditional management of the valley and is remarkably intact but highly vulnerable to loss.	Medium sized pastures and arable fields are bordered by intermittent hedgerows with few hedgerow trees. There is evidence of field amalgamation and fragmentation of hedgerow habitat.	Construction activities would temporarily disrupt the land use pattern. The route of the underground cables has been carefully selected to avoid important ecological and landscape features where practicable. The farmland within the Order Limits is mainly under pasture or in arable cultivation. Hedgerows are sparse, and there are few trees.	The farmland this would be reinstated following completion of the construction works. This includes the replacement of hedgerows and few trees which had to be removed. At year 1, the hedgerows and trees would appear immature, and the former construction areas would still be noticeable at close range and continue to affect the traditional land use pattern, albeit only very locally.	By Year 15, the combination of the mature hedgerows and maturing trees means that the pattern of land use would be returned to its existing character and the landscape and visual benefits of removing the existing 132kV overhead line in association with the proposed underground cables would be realised.
The influence of incongruous features or elements (whether man-made or natural) on the perceived natural beauty of the area	Agricultural landscape free from incongruous development	Managed landscape created by traditional farming practices captured in paintings of landscape artists and remarkably intact still to this day. Where development occurs, it is predominately rural and traditional in character.	Pylons on the existing 400kV overhead line and commercial orchards influence the perceived natural beauty and ruralness of the affected area.	The natural beauty of this part of the AONB is already influenced by incongruous elements but construction activities would add to these and would further reduce the perceived natural beauty of the farmland.	Landscape quality would be reinstated following completion of the works and restoration of the farmland. The replanted hedgerows and trees would appear immature and the former construction areas would still be noticeable at close range, but the landscape would be free of incongruous features and activity associated with construction. The removal of one of the existing overhead lines would remove an incongruous landscape element.	By Year 15, the combination of the mature hedgerows and maturing trees means that the farmland would be returned to its existing character and the landscape benefits of removing the existing 132kV overhead line in association with the underground cables would be realised.
Scenic Quality						
A distinctive sense of place	Iconic lowland river valley	Appeal to the senses: A small scale, domesticated landscape with a sense of traditional management which is the epitome of lowland English countryside. Familiar and idyllic, intimate and domesticated, subtle and harmonious balance of land use and features.	The Box Valley within the affected area is legible in the landscape but lacks the heavily wooded character and sense of intimacy that is found along other parts of the valley.	The construction activity would disrupt the sense of place associated with the Box Valley and farmland along the route.	At Year 1, although the valley floor grassland would be establishing, the former construction areas would still be noticeable at close range. However, the sense of place would be substantially restored.	By Year 15, the valley floor grassland would be established. The landscape would be returned to its existing character and the landscape and visual benefits of removing the existing 132kV overhead line in association with the underground cables would be realised.

Natural Beauty Factors/Considerations	Special Qualities	Supporting Evidence (from AFA report (2016))	Relevance to Affected Area	Potential Effects		
				Construction	Year 1 after Construction	Year 15 after Construction
	Valley bottom grazing marshes	Scale, colour and texture: Green and luxuriant pastures, with grazing cows and sheep, river meandering lazily amid stout but graceful willows. Valley floor wet meadows and arable rolling valley sides contrast with each other in terms of scale, colour and texture.	There are some small areas of meadow or managed wetland and priority habitat floodplain grassland and neutral grassland along the valley floor of the River Box.	The trenchless crossing under the River Box would avoid the loss of trees, although there would be temporary loss of some priority habitat floodplain marshland to facilitate the crossing and temporary access track. The effects of this on scenic quality would be very localised within a short section of the valley floor.	At Year 1, the areas of reinstated valley floor grassland in the valley floor would be establishing. Although the former construction areas would still be noticeable at close range, scenic quality would be substantially returned to its pre-construction level.	By Year 15, valley floor grassland along the Box Valley would be established. The landscape would be returned to its existing character and the landscape and visual benefits of removing the existing 132kV overhead line in association with the underground cables would be realised.
Visual interest in patterns of land cover	Assemblage of features	Visual Interest: Dedham Vale is not a dramatic expansive landscape but a small-scale domesticated landscape where the juxtaposition of features including the riverside meadows grazed by cows and sheep, graceful willows, meandering watercourse, rolling farmlands - cornfields at harvest, fine oaks, picturesque villages and distinctive valley topography offer visual delight and interest. Leafy lanes often with wildflower verges (many are 'Protected Lanes' in Essex or Roadside Nature Reserves in Suffolk) link nucleated villages of great charm and vibrant colour. Isolated farms or barns sit in hollows in the hills while church towers stand proudly at the top of slopes and act as local landmarks.	The affected area does not display the wide assemblage of features characteristic of much of the AONB and there is evidence of hedgerow removal and field amalgamation. Visual interest is provided by the juxtaposition of the sloping valley sides of the River Box with the more open farmland punctuated by small woodland blocks.	Construction activities would temporarily disrupt the pattern of the farmland which is mainly under pasture or in arable cultivation. The route of the underground cables has been carefully selected to avoid important ecological features where practicable. Hedgerows are sparse, and there are few trees. Dollops Wood, Bushy Park Wood and Broom Hill, and woodland at Alder Carr would be unaffected and would continue to contribute to the natural beauty of the AONB as well as provide natural screening of the construction activities.	The pattern of land cover would be reinstated with replanting of the sections of hedgerow and few trees which had to be removed to facilitate construction. At year 1 the hedgerows and trees would appear immature, and the former construction areas would still be noticeable at close range, but scenic quality would be substantially returned to its pre-construction level.	By Year 15, the combination of the mature hedgerows and maturing trees means that the landscape would be returned to its existing character and the landscape and visual benefits of removing the existing 132kV overhead line in association with the proposed underground cables would be realised.
	Enclosure and views	Sequence of views: Woodlands and trees and overlapping lines of vegetation enclose lanes, enhance landform and frame views such that there is an unfolding sequence of views. Steep tributary valleys contain a high concentration of woodland which creates an enclosed and intimate landscape with high degree of seclusion.	The Box Valley is legible in the landscape but lacks the heavily wooded character and sense of intimacy that is found along other parts of the valley. The farmland to the west of the River Box affords open views across the surrounding countryside. To the east of the River Box, Bushy Park Wood and woodland at Broom Hill provides additional visual interest and enclosure.	Construction activities would temporarily interrupt views and introduce incongruous elements and disturbance into this part of the AONB. Dollops Wood, Bushy Park Wood and Broom Hill, and woodland at Alder Carr would be unaffected and would continue to provide enclosure and natural screening of the construction activities.	Rural views would be reinstated following restoration of the farmland, including hedgerow and tree replacement at the end of construction. Although the former construction areas would still be noticeable at close range, the quality of the views would be enhanced through the absence of the existing 132kV overhead line.	By Year 15, the combination of the mature hedgerows and maturing trees means that the landscape would be returned to its existing character and the landscape and visual benefits of removing the existing 132kV overhead line in association with the proposed underground cables would be realised.
Appeal to the senses	Rural charm and tranquillity	John Constable was inspired by the subtle and harmonious balance of all the ingredients of the classical English Lowland and he wrote the following: "The gentle declivities, the luxuriant meadow flats sprinkled with flocks and herds, and well cultivated uplands, the woods and rivers, the numerous scattered villages and churches with farms and picturesque cottages, all impact to this particular spot an amenity and elegance hardly anywhere else to be found". "The sound of water escaping from mill dams often rotten plants, slimy moss and brickwork...." "Painting for me is another word for feeling and I associate my careless boyhood with all that lies on the banks of the Stour".	Pylons on the existing 132kV and 400kV overhead lines and commercial orchards influence the perceived natural beauty and ruralness of the area. Nevertheless, it retains a sense of rural charm and tranquillity. It does not however display the subtle and harmonious balance of typical English lowland elements and features found elsewhere in the AONB.	Construction activities would temporarily reduce the rural charm and sense of tranquillity experienced in this part of the AONB.	The completion of the construction works and reinstatement planting, together with the removal of the existing 132kV overhead line would enhance the rural charm and sense of tranquillity experienced in this part of the AONB, although the former construction areas would still be noticeable at close range.	By Year 15, the rural charm and sense of tranquillity experienced in this part of the AONB would be enhanced through the removal of the existing 132kV overhead line in association with the proposed underground cables.
Relative Wildness						
A sense of remoteness	Remoteness	Perceptions of being away from it all: Sense of remoteness is readily perceived on the open and exposed grazing marshes near Manningtree where the call of marshland birds (Redshank, Lapwing and Oystercatcher) add ambience and are evocative of a remote and natural area Inland the deeply rural countryside at Wiston and Boxted can also feel remote. Significant sections of the valley landscape remain relatively inaccessible with roads crossing the river only at infrequent intervals giving rise to a greater sense of remoteness.	The area has a sense of remoteness despite being close to commercial fruit farming. Nearby farms are not typically prominent in views, as they are surrounded by trees.	Construction activities would temporarily reduce the sense of remoteness experienced in this part of the AONB.	The completion of the construction works and reinstatement planting, together with the removal of the existing 132kV overhead line would enhance the sense of remoteness experienced in this part of the AONB.	At Year 15, the sense of remoteness experienced in this part of the AONB would be enhanced through the removal of the existing 132kV overhead line in association with the proposed underground cables.

Natural Beauty Factors/Considerations	Special Qualities	Supporting Evidence (from AFA report (2016))	Relevance to Affected Area	Potential Effects		
				Construction	Year 1 after Construction	Year 15 after Construction
A relative lack of human influence	Agricultural landscape	Managed landscape created by traditional farming practices. This is not a strongly 'natural' landscape but one which portrays land management practices established in the middle of the 20th century.	This is a farmed landscape which displays some evidence of a decline in traditional management practices and is influenced by the presence of pylons and in places by proximity to commercial fruit farms.	Construction activities would introduce further incongruous human influences into the landscape of this part of the AONB.	Any sense of wildness would be restored following completion of construction and reinstatement of the farmland. By removing one of the existing overhead lines, overt human influences would be reduced, although the former construction areas would still be noticeable at close range.	At Year 15, the benefits of removing the existing 132kV overhead line in association with the underground cables would be realised and the farmland would appear more traditional in character.
A sense of the passing of time and a return to nature	Evidence of human habitation over previous millennia	Passing of time: In places there are dilapidated barns with bulging and sagging weatherboarding which engenders romantic qualities and the passing of time.	There are no features within the area which enhance perceptions of time depth and are reminiscent of Constable's day.	Construction activities would have little effect on a sense of the passing of time and a return to nature as these qualities are not strongly displayed in this part of the AONB.	At Year 1, there would be no effect on a sense of the passing of time and a return to nature as these qualities are not strongly displayed in this part of the AONB.	At Year 15, there would be no effect on a sense of the passing of time and a return to nature as these qualities are not strongly displayed in this part of the AONB.
Contributors to tranquillity	Relative tranquillity	Factors which contribute to perceptions of tranquillity: Familiar idyllic images; Lack of overt signs of development; Natural sounds; Presence of water along the banks of the Stour; Minimal noise and light intrusion; Ability to enjoy/walk lanes with minimal traffic.	Despite the presence of the existing 132kV and 400kV overhead lines and commercial fruit farming, the area is relatively tranquil due to the absence of roads and settlement. There is limited light intrusion at night-time.	Construction activities would temporarily reduce the sense of tranquillity experienced in this part of the AONB.	Tranquillity would be restored to pre-construction levels on completion of the works. By removing one of the existing overhead lines, one of the signs of development which currently influences the perception of the landscape would be removed.	At Year 15, the sense of tranquillity experienced in this part of the AONB would be enhanced through the removal of the existing 132kV overhead line in association with the underground cables.
	Relative tranquillity	Consensus: Emotional responses to this landscape are reflected in the draw of artists and writers and the expression of a 'quiet idyll'. Dedham Vale because of its lowland rural character can have a wide appeal to many sections of society. People visit the area and feel safe in the lowland rural scene - here they have the opportunity to feel inspired. The Dedham Vale landscape has a propensity to satisfy people's expectation of a classic English lowland landscape.	Despite the presence of the existing 132kV and 400kV overhead lines and commercial fruit farming, the area is relatively tranquil due to the absence of roads and settlement. There is limited light intrusion at night-time.	Construction activities would temporarily reduce the sense of tranquillity experienced in this part of the AONB.	Tranquillity would be restored to pre-construction levels on completion of the works. By removing one of the existing overhead lines, one of the signs of development which currently influences the perception of the landscape would be removed.	At Year 15, the sense of tranquillity experienced in this part of the AONB would be enhanced through the removal of the existing 132kV overhead line in association with the underground cables.
Detractors from tranquillity	Some intrusions of human activity	Factors which detract from perceptions of tranquillity: Visibility and noise intrusion from A12 Peripheral or linear housing development; Electricity pylons; High concentrations of visitors around 'honey pot' sites. Recreational activities which are not regarded as quiet outdoor recreation e.g. organised or motorised sports.	Despite the presence of the existing 132kV and 400kV overhead lines and commercial fruit farming, the area is relatively tranquil due to the absence of roads and settlement.	Construction activities would temporarily reduce the sense of tranquillity experienced in this part of the AONB.	The completion of the construction works and removal of the existing 132kV overhead line would enhance the sense of tranquillity experienced in this part of the AONB.	At Year 15, the benefits of removing the existing 132kV overhead line in association with the underground cables would be realised and there would be a greater sense of tranquillity.
Natural Heritage Features						
Geological and geomorphological features	Geology and geomorphology	Land use patterns: London Clay and sand and gravel deposits exposed on valley sides are reflected in quarry sites, remnant and past heathland e.g. Tiger Hill. Distinctive pattern of vegetation reflecting underlying soils - elm, thorn, oak, hazel and field maple in hedgerows on the lower slopes with holly, pine and ash becoming more common on the upper slopes. Within the valley floor alder and willow are commonplace.	Outside the valley floor of the River Box, there are no important geological and geomorphological features, and the arable fields and pastures do not reflect the underlying soils.	The trenchless crossing under the River Box would avoid impacts on the geomorphology of the River Box.	There would be no change to the geology or geomorphological features.	There would be no change to the geology or geomorphological features.
Wildlife and habitats	Functioning River Stour and tributaries	Concentration of valued habitats: Sites of Special Scientific Interest and County Wildlife Sites are primarily associated with the River Stour and tributaries. Alder and black poplar and pollarded willow along the watercourses. Rough grassland gives rise to ideal hunting ground for barn owl. Iconic scenes along the river e.g., Flatford Mill derived from traditional management which over time has created valued habitats. Bluebells clothe the banks of narrow lanes in spring and buttercups carpet the meadows.	The valley floor of the River Box within the affected area comprises priority habitat floodplain grassland and a small area of grassland with white willow plantation. Two ditches create wetter areas.	The trenchless crossing under the River Box would avoid the loss of some valley floor vegetation, although there would be temporary loss of some priority habitat floodplain grassland to facilitate the crossing and temporary access track. The effects of this on scenic quality would be very localised within a short section of the valley floor.	At Year 1, the areas of valley floor grassland would be establishing. Although the former construction areas would still be noticeable at close range, scenic quality would be substantially returned to its pre-construction level.	By Year 15, the valley floor grassland would be established. The landscape would be returned to its existing character and the landscape and visual benefits of removing the existing 132kV overhead line in association with the underground cables would be realised.

Natural Beauty Factors/Considerations	Special Qualities	Supporting Evidence (from AFA report (2016))	Relevance to Affected Area	Potential Effects		
				Construction	Year 1 after Construction	Year 15 after Construction
	Semi natural ancient woodlands	Appealing woodland patterns and woodland habitat networks. Ancient woodland on the valley sides e.g., Boxted Hall and alder carr along the valley floor. Juxtaposition of acidic sandy soils and clay soils results in a range of habitats in close proximity e.g. Arger Fen.	The nearest semi natural ancient woodland is Bushy Park Wood and woodland at Broom Hill, both of which lie outside the Order Limits.	Dollops Wood, Bushy Park Wood and Broom Hill, and woodland at Alder Carr would be unaffected and would continue to provide enclosure and natural screening of the construction activities.	Dollops Wood, Bushy Park Wood and Broom Hill, and woodland at Alder Carr would be unaffected and would continue to provide enclosure and natural screening of the construction activities	Dollops Wood, Bushy Park Wood and Broom Hill, and woodland at Alder Carr would be unaffected and would continue to provide enclosure and natural screening of the construction activities
Cultural Heritage						
Built environment, archaeology and designed landscapes	Historic villages	Intact settlement pattern: Saxon/Medieval settlement pattern - distinctive settlement form clustered around small triangular greens or 'tyes'. The small scale of traditional villages built form and layout and the relationship between the village and the wider landscape setting remains predominately intact. Many of the settlements are conservation areas and contain buildings which reflect major phases of prosperity associated with the cloth trade in the 13th century. A dispersed pattern of individual rural dwellings occurs throughout the area and along roads.	There are no historic village within the Order Limits but the conservation area of Polstead lies within the AONB within 400m of the Order Limits.	There would be no construction effects on historic villages.	There would be no construction effects on historic villages.	There would be no construction effects on historic villages.
	Historic sites and landscapes	Significant collection of visibly tangible historic features, structures and buildings including limekilns, 2 Norman Motte and Bailey castles, historic navigation, great halls and estates, including Registered Parks and Gardens - (e.g.Tendring Hall, Giffords Hall).	Archaeological trial trenching has been carried out within the Order Limits where they pass through the AONB. No significant archaeological remains were discovered. There is a low potential for significant archaeological remains to exist within this area based on the results produced by the intrusive investigation. There is potential to encounter palaeoenvironmental deposits in the drill pit for the trenchless crossing of the Box Valley. Nusstead Farm lies close to the Order Limits and is Grade II listed. The existing 400kV and 132kV overhead lines are a prominent visual intrusion into its setting.	There would be no direct impact on any historic features. Due to the use of trenchless crossing techniques, the potential to encounter palaeoenvironmental deposits along the Box Valley is very low. Construction would not result in additional visual intrusion to listed buildings given the distance and or angle from the properties (see ES Appendix 8.2: Historic Environment Impact Assessment [APP-127] .	Although the former construction areas would still be noticeable at close range, the landscape would be substantially returned to its existing character. The removal of the existing 132kV overhead line in association with the underground cables would benefit the setting of Grade II listed buildings such as Nusstead Farm.	By Year 15 the landscape would be returned to its existing character and the landscape and visual benefits of removing the existing 132kV overhead line in association with the underground cables would be realised.
Historic influence in the landscape	The working landscape	Landmark features/eye catchers: Landmark churches built of knapped flint reflecting period of prosperity (woollen trade 1300-1600) but built on the sites of former Saxon churches. Their landmark qualities reinforce identity and visual coherence of the area. Traditional barns clad in stained weather boarding - these buildings are characteristic of Dedham Vale and reinforce its rural roots. Their organic character and way in which they sit in the landscape add time depth, visual interest and have been an inspiration to artists such as Nash. Visual interest in range of buildings styles and types: Range of building styles including Medieval timber framed dwellings, grander brick faced 18th century houses, modern buildings from 20th and 21th centuries. Occasional 'pargetting' on buildings and colour of buildings reflects traditional lime washing with a mixture of lime and tallow colour from locally derived earth pigments resulting in pinks, apricots and buffs.	The area displays a working landscape in pastoral and arable cultivation. Historically fields in this location have been random in pattern and medium in size, becoming smaller closer to the River Box. Nearby farms including the Grade II listed 'The Nussteads' are associated with groups of trees and are not prominent features in the landscape.	There would be no direct impact on any historic features. However, construction activities would introduce incongruous features and additional movement into the working farmland. This would temporarily reduce the visual coherence of the and diminish the rural qualities of the farmland.	At Year 1, the former construction areas would still be noticeable at close range. However, the visual coherence and rural qualities of the farmland would be substantially restored.	By Year 15 the landscape would be returned to its existing character and the landscape benefits of removing the existing 132kV overhead line in association with the underground cables would be realised.
Characteristic land management practices	Evidence of management practices established in middle of 20th century	Tangible history: Ditches and banks and coppiced hazel stools marking former park and woodland boundaries. Many of the sinuous lanes date back to early patterns of livestock movements from valley floor to valley sides. Place names associated with former heathland; Dedham Heath, Polstead Heath and Leavenheath. Engineered channels/sluices relate to a time when the Stour was navigated between Manningtree and Sudbury (post	The Order Limits pass through an area of pre-18th century enclosure (random fields), with meadow or managed wetland within the Box Valley. The fields show some evidence of hedgerow loss and amalgamation.	Construction activities would temporarily disrupt the pattern of arable fields and pastures	The farmland would be reinstated with replanting of the sections of hedgerow and few trees which had to be removed to facilitate construction. At year 1, the hedgerows and trees would appear immature, and the former construction areas would still be noticeable at close range, but land cover patterns and features would	By Year 15, the combination of the mature hedgerows and maturing trees means that the landscape would be returned to its existing character and the landscape and visual benefits of removing the existing 132kV overhead line in association with the underground cables would be realised.

Natural Beauty Factors/Considerations	Special Qualities	Supporting Evidence (from AFA report (2016))	Relevance to Affected Area	Potential Effects		
				Construction	Year 1 after Construction	Year 15 after Construction
		1705) and when mills developed along the route producing mainly corn which was transported by barge. Traditional orchards associated with the small villages e.g. Polstead Cherry. Artistic evidence demonstrating traditional landscapes and people working the land.			be substantially returned to pre-construction levels.	
Associations with written descriptions	Association with Ronald Blythe and many other writers	Present day landscape connects people to past writers and to expressing emotions associated with place: The AONB contains an assemblage of features captured in the writings of Ronald Blythe. The similarity of the landscape today to that depicted in historic writing reinforces the timeless quality of this landscape.	No known associations for this part of the AONB.	No effect.	No effect.	No effect.
Associations with artistic representations	Associations with Constable and many other artists.	Present day landscape connects people to past artists and to expressing emotions associated with place: The AONB contains an assemblage of features captured in the paintings of John Constable, Sir Alfred Munnings and John Nash which are still evident today. The similarity of the landscape today to that depicted in historic paintings reinforces the timeless quality of this landscape. Dedham Vale provokes a remarkably strong emotional response which is readily expressed in the works of artists and writers. It is not just the association of this landscape with artists and writers that is of value but rather the opportunity to experience first hand the landscape qualities noted above which are so well captured by such artists and writers. It is this combination that sets this landscape above the ordinary as a national treasure and provides visitors with such inspiring experiences. Dedham Vale deeply resonates with visitors as a classic English landscape - this 'Englishness' is reinforced by its association with artists such as Constable who are synonymous with our sense of who we are and cultural identity.	No known associations for this part of the AONB.	No effect.	No effect.	No effect.
Associations of the landscape with people, places and events		The legend of the dragon in Wormingford Mere. Tangible historic sites including above ground and below ground archaeology e.g. cropmarks which have association with particular periods in history and increase peoples enjoyment and perceptions of changing landscape patterns over the centuries.	No known associations for this part of the AONB, with buried anomalies representing agricultural activity from the post-medieval period.	No effect.	No effect.	No effect.

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