

The Great Grid Upgrade

Eastern Green Link 5 (EGL 5)

Preliminary Environmental Information Report

Volume 1

Part 2

Chapter 8 Landscape and Visual Amenity

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8 Landscape and Visual Amenity

8.1 Introduction

- 8.1.1 This chapter presents the preliminary findings of the Environmental Impact Assessment (EIA) undertaken to date for the Eastern Green Link (EGL) 5 English Onshore Scheme, with respect to landscape and visual amenity. The preliminary assessment is based on information obtained to date. It should be read in conjunction with the description of the English Onshore Scheme provided in **Volume 1, Part 1, Chapter 4: Description of the Project**.
- 8.1.2 This chapter describes the methodology used, the datasets that have informed the preliminary assessment, current baseline conditions, current environmental measures, and the preliminary landscape and visual amenity effects that could result from the English Onshore Scheme during the construction and operation (and maintenance) phases. For the decommissioning phase, it is assumed that potential effects would be similar to those identified at construction. Specifically, they relate to the English Onshore elements of the Scheme landward of Mean Low Water Springs (MLWS).
- 8.1.3 This chapter should be notably read in conjunction with and considered alongside the following technical aspect chapters found in **Volume 1**:
- **Part 2, Chapter 6: Biodiversity** (due to the close association between some landscape receptors and ecological features (habitats/flora) and the potential for overlapping environmental measures);
 - **Part 2, Chapter 7: Cultural Heritage** (due to the association between landscape value influenced by the presence of heritage assets);
 - **Part 2, Chapter 9: Water Environment** (due to the close association between some landscape receptors and water environment features (fluvial and coastal waterbodies) and the potential for overlapping embedded environmental measures);
 - **Part 2, Chapter 11: Agriculture and Soils** (due to the close association with topography and land use);
 - **Part 2, Chapter 12: Traffic and Transport** (due to the location and appearance of traffic movement within the landscape);
 - **Part 2, Chapter 13: Noise and Vibration** (due to the potential association between noise mitigation and landscape mitigation);
 - **Part 2, Chapter 15: Socio-Economics, Recreation and Tourism** (due to the relationship between recreational opportunities and receptors);
 - **Part 2, Chapter 16: Health and Wellbeing** (due to the association between some landscape receptors and activities that benefit physical and mental health, e.g. exercise, recreation, etc, as well as protective factors for mental health); and
 - **Part 4, Chapter 27: Cumulative Effects** (due to the potential for cumulative effects as a result of identified schemes).

8.1.4 This chapter is supported by the following figures in **Volume 3**:

- **Part 2, Figure 8-1: Landscape and Visual Study Area;**
- **Part 2, Figure 8-2: Topography;**
- **Part 2, Figure 8-3: Landscape Features and Designations;**
- **Part 2, Figure 8-4: Landscape Character - National level;**
- **Part 2, Figure 8-5: Landscape Character - Local level;**
- **Part 2, Figure 8-6: Screened ZTV – Converter Station;**
- **Part 2, Figure 8-7: Screened ZTV – Residential Receptors;**
- **Part 2, Figure 8-8: Screened ZTV - Recreational Receptors;**
- **Part 2, Figure 8-9: Screened ZTV - Construction Swathe;**
- **Part 2, Figure 8-10: Screened ZTV - Construction Compounds;**
- **Part 2, Figure 8-11: Viewpoint 1: Crawcroft Lane, Southern Edge of Hannah;**
- **Part 2, Figure 8-12: Viewpoint 2: Viewpoint 2: King Charles III England Coastal Path near Huttoft Beach;**
- **Part 2, Figure 8-13: Viewpoint 3: PRoW Ande/16/1, Sea Road, Anderby**
- **Part 2, Figure 8-14: Viewpoint 4: PRoW Hutt/13/1, south-west of Huttoft;**
- **Part 2, Figure 8-15: Viewpoint 5: Huttoft Road, south-east of Thurlby;**
- **Part 2, Figure 8-16: Viewpoint 6: Eastern Edge of Bilby;**
- **Part 2, Figure 8-17: Viewpoint 7: A111, Sutton Road, south of Markby;**
- **Part 2, Figure 8-18: Viewpoint 8: Well High Lane, west of Well;**
- **Part 2, Figure 8-19: Viewpoint 9: Roman Bank, west of Anderby Creek Caravan Park;**
- **Part 2, Figure 8-20: Viewpoint 10: PRoW Ulce/83/1, south-west of Rigsby**
- **Part 2, Figure 8-21: Viewpoint 11: PRoW Sale/290/1, east of Greenfield;**
- **Part 2, Figure 8-22: Viewpoint 12: PRoW Malt/256/2, Maltby le Marsh;**
- **Part 2, Figure 8-23: Viewpoint 13: PRoW Bils/13/1, east of Thurlby;**
- **Part 2, Figure 8-24: Viewpoint 14: A111, Sutton Road, Markby;**
- **Part 2, Figure 8-25: Viewpoint 15: Southern End of Rossa Lane;**
- **Part 2, Figure 8-26: Viewpoint 16: Farlesthorpe Road, Willoughby Branch Line Nature Reserve;**
- **Part 2, Figure 8-27: Viewpoint 17: PRoW Cumb/365/1, west of Cumberworth;**
- **Part 2, Figure 8-28: Viewpoint 18: Route with Public Access, west of Mumby;**
- **Part 2, Figure 8-29: Viewpoint 19: Junction of PRoWs Sale/281/2, Sale/284/1 and Sale/281/3, south of Thoresthorpe;**
- **Part 2, Figure 8-30: Viewpoint 20: Halcyon, Mill Lane, east of Saleby;**

- Part 2, Figure 8-31: Viewpoint 21: PRow Bils/11/1, south-east of Asserby;
- Part 2, Figure 8-32: Viewpoint 22: PRow Hutt/14/1, east of Asserby
- Part 2, Figure 8-33: Viewpoint 23: A52, Sutton Road, northern edge of Huttoft;
- Part 2, Figure 8-34: Viewpoint 24: PRow SuOS/335/1;
Southern edge of Sutton on Sea;
- Part 2, Figure 8-35: Viewpoint 25: PRow Hutt/15/1, Crawcroft Lane;
- Part 2, Figure 8-36: Viewpoint 26: PRow Hutt/2/3, east of Huttoft;
- Part 2, Figure 8-37: Viewpoint 27: PRow Chap/21/2, west of Wolla Bank Pit Nature Reserve;
- Part 2, Figure 8-38: Viewpoint 28: PRow Hutt/2/2, east of Huttoft, and;
- Part 2, Figure 8-39: Viewpoint 29: Anderby Creek Beach.

8.1.5 This chapter is supported by the following appendices in **Volume 2**:

- Part 1, Appendix 2.A: Regulatory and Planning Context;
- Part 1, Appendix 5.A: Outline Register of Design Measures;
- Part 1, Appendix 5.B: Outline Code of Construction Practice (CoCP);
- Part 2, Appendix 8.A: Landscape and Visual Assessment Methodology;
- Part 2, Appendix 8.B: Landscape Character Baseline and Assessment; and,
- Part 2, Appendix 8.C: Visual Baseline and Assessment.

Limitations

8.1.6 The information provided in this Preliminary Environmental Information Report (PEIR) is preliminary; the final assessment of significant effects will be reported in the Environmental Statement (ES). The PEIR has been produced to fulfil National Grid Electricity Transmission plc (NGET)'s consultation duties in accordance with Section 42 of the PA2008 and enable consultees to develop an informed view of the preliminary significant effects of the English Onshore Scheme.

8.1.7 This section describes the key parameters and assumptions that have been made when undertaking the assessment presented within this chapter:

- The viewpoint photography has been carried out from publicly accessible locations in winter; therefore, it represents a worst-case scenario of seasonality with trees without foliage.
- Whilst at this stage no specific mitigation measures have been identified to represent a “worst” case scenario of assessment, year 15 assessment has been included to provide an initial assessment of the effectiveness associated with potential mitigation planting. Therefore, for the purpose of the assessment it has been assumed that lost vegetation within the cable corridor will be reinstated, whilst recognising operational requirements. In addition, an assumption has been made that mitigation around the indicative zone for the new converter station would comprise a range of landscape features such as tree belts, hedgerows and minor landform alteration to provide a considerable degree of landscape integration and visual screening.

- Vegetation loss has been assessed through a desktop study by considering the presence of the existing vegetation identified on aerial imagery, compared with the “maximum” width of the High Voltage Direct Current (HVDC) and High Voltage Alternating Current (HVAC) corridors. Further details will be provided at the ES stage, once the alignment is finalised, including details regarding the proposed trenchless crossings.
- The assessment is based upon development parameters that include the maximum extent of new development within the draft Order Limits (see **Volume 3, Part 1, Figure 1-2: English Onshore Scheme draft Order Limits**) and the maximum heights of the English Onshore Scheme infrastructure outlined in **Volume 1, Part 1, Chapter 4: Description of the Project**, which outlines the maximum heights of key components associated with the indicative converter stations. These height parameters were used to inform the Zone of Theoretical Visibility (ZTV).

Preliminary significance conclusions

- 8.1.8 For ease of reference, a summary of the potentially significant effects from the preliminary landscape and visual amenity assessment is provided in **Table 8-1, Table 8-2 and Table 8-3**.
- 8.1.9 The preliminary assessment for effects on landscape character references the parameters of landscape sensitivity for each landscape character unit, the predicted magnitude of change to identify landscape receptors affected significantly and not significantly on the scale of major adverse (significant), moderate adverse (potentially significant), minor adverse (not significant) and negligible adverse (not significant).
- 8.1.10 These effects were identified at the construction and operational phases (year 0 and year 15). Landscape receptors include Landscape Character Units such as Landscape Character Area’s (LCA’s), Landscape Character Types (LCT’s) and National Character Areas (NCA’s).
- 8.1.11 The preliminary assessment for visual amenity has considered the likelihood of potential significant effects at construction, Year 0 and Year 15 on the same scale of effects, where major adverse effects are significant, whilst moderate adverse effects can be significant or not significant. The details of the methodology and other landscape and visual effects are outlined in the following Appendices, **Volume 2**:
- **Part 2, Appendix 8.A: Landscape and Visual Assessment Methodology;**
 - **Part 2, Appendix 8.B: Landscape Character Baseline and Assessment;** and
 - **Part 2, Appendix 8.C: Visual Baseline and Assessment.**
- 8.1.12 All other effects in relation to Landscape and Visual Amenity have been assessed at this stage as not significant.

Table 8-1 Preliminary summary of potential significance of landscape effects

Receptor locations	Sensitivity/ importance / value of receptor	Magnitude of change	Significance	Summary rationale	
Lincolnshire Wolds National Landscape	High	Construction	Medium	Moderate adverse (not significant)	Change to perceptual qualities across a very small portion of the designated area. Change is associated with the construction of the converter station and within the cable corridor.
		Operation (Y0)	Low	Minor adverse (not significant)	Restricted change to scenic qualities as a result of the converter station introduction. Change is associated with the converter station.
		Operation (Y15)	Negligible	Minor adverse (not significant)	A very small-scale change to scenic qualities as a result of the converter station introduction. Change is associated with the converter station.
Setting of the Lincolnshire Wolds National Landscape	Medium	Construction	High	Moderate adverse (significant)	A substantial change to the landscape character. Change is associated with the construction of the converter station and within the cable corridor.
		Operation (Y0)	Medium	Minor adverse (not significant)	A substantial change to the landscape character, affecting a localised area through the introduction of the converter station. Change is associated mainly with the introduction of the converter station.
		Operation (Y15)	Low	Minor adverse (not significant)	A substantial change to the landscape character, in the vicinity of the proposed converter station. Change is associated with the converter station.

Receptor locations			Sensitivity/ importance / value of receptor	Magnitude of change	Significance	Summary rationale
Lincolnshire Marshes Character (NCA)	Coast National Area	High	Construction	Medium	Major adverse (significant)	A substantial change to the landscape character within a localised area. Change is associated with the construction of the converter station and within the cable corridor.
			Operation (Y0)	Low	Moderate adverse (not significant)	Heavily restricted change following land use restoration. Change is associated mainly with the introduction of the converter station.
			Operation (Y15)	Negligible	Minor adverse (not significant)	Change remains heavily restricted for this receptor due to restored land use and relative distance from the converter station. Change is associated with the converter station.
Donna Gibraltar Naturalistic Landscape Character (LCA)	Nook Point Coast Area	High	Construction	High	Major adverse (significant)	A substantial change to the local landscape character. The change is associated mainly with construction at landfall.
			Operation (Y0)	Negligible	Negligible adverse (not significant)	Perceptible change vastly reduced once the construction phase ends at landfall.
			Operation (Y15)	Negligible	Negligible adverse (not significant)	The change associated with the landfall is barely perceptible.
Tetney Skegness Outmarsh LCA	Lock Coastal	Medium	Construction	Medium	Moderate adverse (significant)	A substantial change to the landscape character associated predominantly with cable corridor.
			Operation (Y0)	Low	Minor adverse (not significant)	Perceptible change greatly reduced once the construction phase ends. The change is associated mainly with converter station.

Receptor locations	Sensitivity/ importance / value of receptor	Magnitude of change	Significance	Summary rationale	
		Operation (Y15)	Negligible	Minor adverse (not significant)	Change to scenic qualities as a result of the introduction of the converter station, partially mitigated.
Holton le Clay to High Great Steeping Middle Marsh LCA		Construction	Medium	Major adverse (significant)	A substantial change to the landscape character. Change is associated with the construction of the converter station and within the cable corridor.
		Operation (Y0)	Low	Moderate adverse (not significant)	Perceptible change greatly reduced once the construction phase ends. Change is associated mainly with converter station
		Operation (Y15)	Negligible	Minor adverse (not significant)	Change to scenic qualities as a result of the introduction of the converter station, partially mitigated.

Table 8-2 Preliminary summary of potential significance on visual amenity of residential receptors

Receptor locations	Sensitivity/ importance/ value of receptor		Magnitude of change	Significance		Summary rationale
Residential receptors						
Markby	High	Construction	Medium	Major (significant)	adverse	Change affects views from residential receptors on the western, eastern and southern edges of the settlement.
		Operation (Y0)	Low	Moderate (significant)	adverse	Substantial change as a result of the converter station introduction.
		Operation (Y15)	Low	Moderate (not significant)	adverse	Change in the views would be restricted by the introduced mitigation planting.
Saleby	High	Construction	Medium	Major (significant)	adverse	Substantial change predicted to views at close proximity for a limited number of receptors.
		Operation (Y0)	Medium	Major (significant)	adverse	Substantial change visible at close proximity, associated with converter station introduction.
		Operation (Y15)	Low	Moderate (not significant)	adverse	The effects will reduce as mitigation planting matures helping to integrate the converter station in views.
Asserby	High	Construction	High	Major (significant)	adverse	Substantial change visible at close proximity, for a limited number of receptors.
		Operation (Y0)	Low	Moderate (significant)	adverse	Substantial change visible at close proximity for a limited number of receptors.

Receptor locations	Sensitivity/ importance/ value of receptor		Magnitude of change	Significance		Summary rationale
		Operation (Y15)	Low	Moderate (not significant)	adverse	The effects will reduce as mitigation planting matures helping to integrate the converter station in views.
Thoresthorpe	High	Construction	High	Major (significant)	adverse	Substantial change visible at close proximity for a limited number of receptors.
		Operation (Y0)	Medium	Major (significant)	adverse	Substantial change visible at close proximity, associated with converter station introduction.
		Operation (Y15)	Medium	Major (significant)	adverse	The effects will remain as converter station would alter the views at close distance.
Ailby	High	Construction	Medium	Major (significant)	adverse	Substantial change visible at close proximity for a limited number of receptors.
		Operation (Y0)	Negligible	Minor (not significant)	adverse (not significant)	Perceptible change will reduce as a result of land use restoration.
		Operation (Y15)	Negligible	Minor (not significant)	adverse (not significant)	Land use will be restored and mature mitigation planting provides partial screening and visual integration of the converter station.
Bilsby	High	Construction	High	Major (significant)	adverse	Substantial change is perceived at close proximity, visible from a limited number of receptors.
		Operation (Y0)	High	Major (significant)	adverse	The converter station will remain prominent in the views.

Receptor locations	Sensitivity/ importance/ value of receptor		Magnitude of change	Significance		Summary rationale
		Operation (Y15)	Medium	Major (significant)	adverse	Mitigation planting will be largely established however due to the proximity of change the effects will remain major adverse.
Alford	High	Construction	High	Major (significant)	adverse	Substantial change at close proximity, visible from a limited number of receptors.
		Operation (Y0)	Low	Moderate (significant)	adverse	The change in the views will reduce but will remain significant for a small proportion of residents.
		Operation (Y15)	Negligible	Minor (not significant)	adverse (not significant)	The mitigation planting will provide some visual integration, reducing the impact.
Anderby Creek	High	Construction	Medium	Major (significant)	adverse	Substantial change in views at close proximity, visible from a limited number of receptors.
		Operation (Y0)	Negligible	Minor (not significant)	adverse (not significant)	As land use is restored the change in the views would be on a smaller scale and extent.
		Operation (Y15)	Negligible	Minor (not significant)	adverse (not significant)	The converter station would be barely perceptible in the views.
Rigsby	High	Construction	Medium	Major (significant)	adverse	Substantial change at close proximity will be visible from a limited number of receptors.
		Operation (Y0)	Negligible	Minor (not significant)	adverse (not significant)	Perceptible change will reduce and will be restricted to the views of the upper sections of the converter station.
		Operation (Y15)	Negligible	Minor (not significant)	adverse (not significant)	The effects will remain as mature planting will help to screen the lower parts of the converter station.

Receptor locations	Sensitivity/ importance/ value of receptor		Magnitude of change	Significance	Summary rationale
Farlesthorpe	High	Construction	Low	Moderate (significant) adverse	Substantial change to view although visibility from a limited number of receptors.
		Operation (Y0)	Negligible	Minor adverse (not significant)	Perceptible change will reduce and will be restricted to the views of the upper sections of the converter station.
		Operation (Y15)	Negligible	Minor adverse (not significant)	The effects will remain as mature planting will help to screen the lower parts of the converter station.
Cumberworth	High	Construction	Low	Moderate (significant) adverse	Large-scale construction will be visible to a few residents at a considerable distance.
		Operation (Y0)	Negligible	Minor adverse(not significant)	Perceptible change will reduce and will be restricted to views of the upper sections of the converter station.
		Operation (Y15)	Negligible	Minor adverse (not significant)	The effects will remain as mature planting will help to screen the lower parts of the converter station.

Table 8-3 Preliminary summary of potential significance on visual amenity of recreational receptors

Receptor locations	Sensitivity/ importance / value of receptor	Magnitude of change	Significance	Summary rationale
Recreational receptors				
King Charles III High England Coast Path North East National Trail (NT)	Construction	High	Major adverse (significant)	Substantial change at close proximity, visible from a large section of the route within the study area.
	Operation (Y0)	Low	Moderate adverse (not significant)	Perceptible change greatly reduces after land use restoration with restricted views of the converter station.
	Operation (Y15)	Negligible	Minor adverse (not significant)	The perceived effects will reduce for restricted distant views towards the upper section of the converter station.
Lindsay Loop – Long Distance Walking Association trail	Construction	Medium	Major adverse (significant)	Substantial change visible from multiple short sections of the route.
	Operation (Y0)	Low	Moderate adverse (not significant)	The effects will reduce as the change in views is largely attributable to the converter station.
	Operation (Y15)	Negligible	Minor adverse (not significant)	The effects will reduce further as the change will be associated largely with the views of the upper sections of the converter station.
Lincolnshire Coastal Country Park	Construction	High	Major adverse (significant)	Substantial change is visible from multiple locations within the park.
	Operation (Y0)	Low	Moderate adverse (not significant)	Perceptible change greatly reduced once land use is restored.
	Operation (Y15)	Negligible	Minor adverse (not significant)	Land use and vegetation restored.

Receptor locations	Sensitivity/ importance / value of receptor		Magnitude of change	Significance		Summary rationale
PRoW (0-1 km)	High	Construction	High	Major (significant)	adverse	Substantial change at close proximity, visible from multiple PRoW within study area.
		Operation (Y0)	Medium	Major (significant)	adverse	Perceptible change reduced once construction phase ends and land use is restored.
		Operation (Y15)	Low	Moderate (significant)	adverse	Land use and vegetation restored but the views of the upper sections of converter station will remain.
PRoW (1-2 km)	High	Construction	Medium	Major (significant)	adverse	Substantial change is visible from multiple sections of PRoW within the study area.
		Operation (Y0)	Low	Moderate (significant)	adverse	Perceptible change reduced once construction phase ends with converter station visible from multiple PRoW.
		Operation (Y15)	Low	Moderate (not significant)	adverse	Land use and vegetation are restored with views restricted to the upper sections of the converter station.
PRoW (2-3 km)	High	Construction:	Low	Moderate (significant)	adverse	Change visible from multiple PRoW sections within study area.
		Operation (Y0)	Low	Moderate (not significant)	adverse	Perceptible change is reduced once the construction phase ends and land restoration is completed. The converter station will remain visible from some sections of PRoW.
		Operation (Y15)	Low	Minor (not significant)	adverse (not significant)	Land use and vegetation restored. Mitigation planting will provide screening to the lower parts of the converter station.

8.2 Relevant Technical Guidance, Legislation and Policy

Technical guidance

8.2.1 A summary of the technical guidance for landscape and visual amenity is given in **Table 8-4**.

Table 8-4 Technical guidance relevant to the landscape and visual amenity assessment

Technical guidance document	Context
Landscape Institute and the Institute of Environmental Management and Assessment (IEMA) (2013) Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA 3) (Ref 8.1).	The third edition of this guidance (known as GLVIA 3) is regarded as the 'industry standard' document guiding LVIA. GLVIA 3 provides the framework for assessing Landscape and Visual effects.
Natural England (2014) An approach to Landscape Character Assessment (0).	Provides supplementary guidance, outlining the framework for undertaking Landscape Character Assessment, in conjunction with GLVIA 3 (Ref 8.1)
Landscape Institute (2024) Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA 3) (Ref 8.3).	Provides clarifications to GLVIA 3, supplementing the GLVIA 3 guidelines.
Landscape Institute (2021) Technical Guidance Note (TGN): Assessing Landscape Value outside National Designations (Ref 8.4).	The guidance sets out the approaches to assessing landscape value outside national landscape designations.
Landscape Institute TGN 06/19 (2019) Visual Representation of Development Proposals (Ref 8.5).	The guidance note covers the technical parameters associated with the presentation of different types of visualisations, including annotated photographs, wirelines and photomontages.
Landscape Institute Technical Information Note (TIN) 01/17 (2017) Tranquillity – An overview (Ref 8.6).	Provides an overview of tranquillity, including etymology, research, policy background and tranquillity assessment in practice.
Landscape Institute TGN 04/20 (2000) Infrastructure (Ref 8.7).	Sets out the role of the Landscape Professional in the planning, design and management of infrastructure projects and provides a summary of existing technical guidance.

Legislation and planning policy

8.2.2 Relevant legislation and planning policy informing the assessment have been included in **Volume 1, Part 1, Chapter 2: Regulatory and Policy Overview**.

8.3 Consultation and Engagement

Overview

- 8.3.1 The assessment has been informed by consultation responses and ongoing stakeholder engagement. An overview of the approach to consultation is provided in Section 5.9 of **Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology**.
- 8.3.2 A Scoping Opinion was adopted by the Secretary of State, administered by the Planning Inspectorate, on 13 October 2025 (Ref 8.8). A summary of the relevant responses received in the Scoping Opinion in relation to landscape and visual amenity, and confirmation of how these have been addressed within the assessment to date, is presented in **Table 8-5**.

Table 8-5 Summary of EIA scoping opinion responses for landscape and visual amenity

Consultee	ID	Consideration	How addressed in this PEIR
The Planning Inspectorate	3.3.1	<p>Short term impacts from construction activities on Landscape receptors: located outside of the study area with the exception of the Lincolnshire National Landscape.</p> <p><i>“Figures 8-1 and 8-2 of the Scoping Report illustrate the zone of theoretical visibility (ZTV) for the proposed converter station. The figures do not indicate the extent to which construction activities may be visible but demonstrate that the ZTV extends beyond the proposed 3 km study area. The Scoping Report states that effects on landscape units beyond the study area will be limited to perceptual qualities perceived locally and would not be directly affected therefore, significant effects are not likely. Based on the information provided, the Inspectorate does not agree to scope out impacts on landscape and visual receptors beyond the proposed study areas, as there is insufficient evidence to justify the proposed study areas at this stage. The applicant should seek to agree the study area with relevant statutory bodies.”</i></p>	<p>The extent of the study area will be kept under review till the start of work on the ES.</p> <p>Further ZTVs illustrating the potential visibility extent of construction compounds are shown in Volume 3, Part 2, Figure 8-10, while the potential visibility of the construction corridor is shown in Volume 3, Part 2, Figure 8-9.</p> <p>Comments from Natural England were sought at a consultation meeting on 20 November 2025. Any stakeholder comments regarding the extent of the study area following submission of this PEIR will be considered at the ES stage.</p> <p>As indicated in the preface to the GLVIA 3 (Ref 8.1) guidance, the LVIA should focus on likely significant adverse and positive effects; therefore, the study area has been tailored to capture likely significant effects.</p>

Consultee	ID	Consideration	How addressed in this PEIR
The Planning Inspectorate	3.3.2	<p>Short term impacts from construction activities on Visual receptors – employees and transport users.</p> <p><i>“Figures 8-1 and 8-2 of the Scoping Report illustrate the ZTV for the proposed converter station. The figures do not indicate the extent to which construction activities may be visible.</i></p> <p><i>However, the Inspectorate agrees that effects are not likely to be significant on the basis that impacts would be short term and transport and employee receptors are generally of low sensitivity. This matter can be scoped out of further assessment.”</i></p>	<p>Noted and agreed to scope out the effects on employees and transport receptors.</p>
The Planning Inspectorate	3.3.3	<p>Short term impacts from construction activities on visual receptors outside the study area,</p> <p><i>“Figures 8-1 and 8-2 of the Scoping Report illustrate the ZTV for the proposed converter station. The figures do not indicate the extent to which construction activities may be visible but demonstrate that the ZTV extends beyond the proposed 3 km study area.</i></p> <p><i>The Scoping Report states that impacts to receptors beyond the study area will be minimized due to the screening of intervening vegetation, landform and built form, however there is limited evidence to support this.</i></p> <p><i>In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope these matters from the assessment. Accordingly, the ES should include an assessment of these matters or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of a LSE.”</i></p>	<p>The extent of the study area will be kept under review till the start of work on the ES.</p> <p>Further ZTVs illustrating the potential visibility extent of construction compounds, Volume 3, Part 3, Figure 8-10, and the potential visibility of the construction corridor are shown in Volume 3, part 2, Figure 8-9.</p> <p>Comments from Natural England were sought at the consultation meeting on 20 November 2025. Any stakeholder comments regarding the extent of the study area following submission of this PEIR will be considered at the ES stage.</p> <p>As indicated in the preface to GLVIA 3 (Ref 8.1) guidance, the LVIA needs to focus on likely significant adverse and positive effects, therefore, the study area has been tailored to capture likely significant effects.</p>

Consultee	ID	Consideration	How addressed in this PEIR
The Planning Inspectorate	3.3.4	<p>Construction – impacts from night time lighting throughout the cable route corridor on vegetation alongside effects on identified landscape character units (LCU's) in the study area at the national and local level and alongside the Lincolnshire Wolds National Landscape and visual receptors located within the study area.</p> <p><i>“The Scoping Report provides some detail of mitigation measures in relation to lighting in Table 6-7 in order to minimise potential effects. Impacts from lighting are proposed to be scoped out on the basis of impacts being short term.</i></p> <p><i>The short-term nature of lighting is currently not understood from the Scoping Report i.e. what receptors would be impacted by the lighting and how long night time lighting would be required and in which areas. It is also unclear from the wording of the Scoping Report what is meant by ‘vegetation alongside effects on identified landscape character units’ i.e. whether vegetation and landscape character units are considered separate receptors or it is referring to some interlinkage. On this basis, the Inspectorate does not agree to scope this matter out.</i></p> <p><i>The ES should provide an assessment of impacts from night time lighting to landscape receptors where they are likely to be significant or provide appropriate justification, supported by evidence of agreement from relevant consultation bodies as to why effects would not be significant.”</i></p>	<p>Once the lighting strategy is available for the route corridor at the ES Stage, the potential effects of night time lighting during construction will be considered for scoping in/out of the LVIA at the ES stage.</p>
The Planning Inspectorate	3.3.5	<p>Change in the views and perceptual qualities of Lincolnshire Wolds National Landscape on visual amenity alongside perceptual qualities of landscape character during construction and operation.</p> <p><i>“The Scoping Report claims limited intervisibility between converter stations and medium-term perceptual impacts. The Inspectorate does not agree to scope this matter out on the basis that insufficient information has been provided to exclude</i></p>	<p>Noted and agreed. The effects on Lincolnshire Wolds National Landscape are assessed in this PEIR Chapter. The assessment will be reviewed and will be included in the assessment at the ES stage.</p>

Consultee	ID	Consideration	How addressed in this PEIR
		<p><i>further consideration, as individual stations may still have effects regardless of intervisibility, and medium-term impacts could still be significant. The ES should either provide an assessment of likely significant effects or provide sufficient evidence to demonstrate that significant effects are not likely, supported by evidence of agreement from relevant consultation bodies.”</i></p>	
The Planning Inspectorate	3.3.6	<p>Permanent night-time lighting associated with the converter station during operation on:</p> <ul style="list-style-type: none"> • LCAs wholly or partly within 3 km of converter stations • visual receptors within the defined study area. <p><i>“The Inspectorate agrees that on the basis the ES secures that permanent lighting would be limited/sporadic for maintenance and repair activities, that this matter can be scoped out of further assessment.”</i></p>	<p>Noted and agreed to scope out the lighting effects associated with permanent lighting at the converter station.</p>
The Planning Inspectorate	3.3.7	<p>Permanent presence of the converter station on landscape receptors located outside the study area during operation.</p> <p><i>“Figures 8-1 and 8-2 of the Scoping Report illustrate the ZTV for the proposed converter station. The figures demonstrate that the ZTV extends beyond the proposed 3 km study area.</i></p> <p><i>The Scoping Report states that effects on landscape units beyond the study area will be limited to perceptual qualities perceived locally and would not be directly affected therefore significant effects are not likely.</i></p> <p><i>Based on the information provided, the Inspectorate does not agree to scope out impacts on landscape and visual receptors beyond the proposed study areas, as there is insufficient evidence to justify the proposed study areas at this stage (see box ID 3.4.12 below). The applicant should seek to agree the study area with relevant statutory bodies and ensure that the</i></p>	<p>The extent of the study area will be kept under review till the start of work on the ES.</p> <p>Further ZTVs illustrating the potential visibility extent of construction compounds, Volume 3, Part 2, Figure 8-10, and the potential visibility of the construction corridor are shown in Volume 3, Part 2, Figure 8-9.</p> <p>Comments from Natural England were sought at the consultation meeting on 20 November 2025. Any stakeholder comments regarding the extent of the study area following submission of this PEIR will be considered at the ES stage.</p> <p>As indicated in the preface to GLVIA guidance (Ref 8.1), the LVIA needs to focus on</p>

Consultee	ID	Consideration	How addressed in this PEIR
		<i>assessment of effects is based on the agreed study area.”</i>	likely significant adverse and positive effects, therefore, the study area has been tailored to capture likely significant effects.
The Planning Inspectorate	3.3.8	<p>Permanent presence of the converter station on visual receptors – employees, transport users during operation.</p> <p><i>“The Inspectorate agrees that effects are not likely to be significant on the basis that impacts would be short term and transport and employee receptors are generally of low sensitivity. This matter can be scoped out of further assessment.”</i></p>	Employees and transport receptors are generally of low sensitivity and therefore excluded from further assessment.
The Planning Inspectorate	3.3.9	<p>Permanent presence of the converter station on visual receptors outside study area during operation.</p> <p><i>“Figures 8-1 and 8-2 of the Scoping Report illustrate the ZTV for the proposed converter station. The figures demonstrate that the ZTV extends beyond the proposed 3 km study area.</i></p> <p><i>The Scoping Report states that impacts to receptors beyond the study area will be minimized due to the screening of intervening vegetation, landform and built form¹, however there is limited evidence to support this.</i></p> <p><i>In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope these matters from the assessment. Accordingly, the ES should include an assessment of these matters or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of a LSE.”</i></p>	<p>The extent of the study area will be kept under review till the start of work on the ES.</p> <p>Further ZTVs illustrating the potential visibility extent of construction compounds, Volume 3, Part 2, Figure 8-10, and the potential visibility of the construction corridor are shown in Volume 3, Part 2, Figure 8-9.</p> <p>Comments from Natural England were sought at the consultation meeting on 20 November 2025. Any stakeholder comments regarding the extent of the study area following submission of this PEIR will be considered at the ES stage.</p> <p>As indicated in the preface to GLVIA 3 (Ref 8.1) guidance, the LVIA needs to focus on likely significant adverse and positive effects; therefore, the study area has been tailored to capture likely significant effects.</p>

¹ The arrangement of streets, buildings, and open spaces.

Consultee	ID	Consideration	How addressed in this PEIR
The Planning Inspectorate	3.3.10	Impacts from maintenance activities on all landscape and visual receptors. <i>“The Inspectorate agrees that on the basis the ES confirms maintenance activities would be temporary and mainly restricted to the converter station, this matter may be scoped out of further assessment.”</i>	The ES will confirm that maintenance activities will be temporary and will mainly be restricted to the converter station, therefore this matter is scoped out of further assessment
The Planning Inspectorate	3.3.11	Residential Visual Amenity Assessment (RVAA) <i>“The Scoping Report proposes to scope this matter out on the basis that the LVIA would provide an assessment of views from private properties based on representative viewpoints. The Inspectorate does not agree to scope this matter out. The Inspectorate understands that in the Landscape Institute’s Technical Guidance Note TGN 2/19: ‘Residential Visual Amenity Assessment’ the requirement for an RVAA is generally dependent on the outcome of a LVIA. The need for an RVAA should be justified based on the conclusions of the LVIA presented in the ES and agreed with the relevant consultation bodies. In the absence of a LVIA, the Inspectorate does not have sufficient evidence to agree to scope this matter out of further assessment.”</i>	A detailed assessment of views from the key settlements has been carried out within this Chapter and associated appendices. The need for the RVAA at the ES or post ES Stage will be considered following the receipt of the comments post submission of the LVIA.

Technical engagement

- 8.3.3 Technical engagement with consultees in relation to landscape and visual amenity is ongoing. A summary of the technical engagement undertaken to date is outlined in **Table 8-6**.

Table 8-6 Technical engagement on the environmental impact assessment

Consultee	Consideration	How addressed in this PEIR
<p>Natural England (NE) 20 November 2025 (via Teams meeting)</p>	<p>The following items were discussed by NGET:</p> <ul style="list-style-type: none"> • Provided justification for the current extent of the study area and sought comments regarding its extent alongside the proposed location of viewpoints at the Scoping Stage. • Sought feedback guiding the mitigation strategy for the Converter Station was sought. • NGET provided reassurance that the effects on Lincolnshire Wolds National Landscape will be assessed. • Confirmed that effects of night time lighting during construction will be considered for scoping in/out once more detailed information becomes available at the ES stage. • Welcomed any comments regarding furthering the purpose of conserving and enhancing the natural beauty of Lincolnshire Wolds National Landscape • NGET highlighted that RVAA will not be provided, as a detailed assessment of effects on the settlements will be carried out. 	<p>The extent of the study area has been justified in the PEIR. The extent of the study area. Mitigation assumptions have been set out in PEIR. NGET mitigation hierarchy has been applied at the routing and siting stage and continues to be applied as the design develops. The work is ongoing to identify additional mitigation measures to further the statutory purpose of conserving and enhancing the natural beauty of Lincolnshire Wolds AONB.</p>
<p>Natural England 8 December 2025 (via email)</p>	<p>The following comments were included in response from NE:</p> <ul style="list-style-type: none"> • High-level siting comments in the context of the considered options for converter stations CS05 and CS06. • Required LVIA to inform the location and design of converter station as part of an iterative design process, considering the mitigation hierarchy to minimise adverse landscape and visual effects, including on Lincolnshire Wolds National Landscape. 	<p>The location of the Converter Station has been considered by NGET at the siting and routing stage, with input from multidisciplinary teams, including the landscape team. Converter Station design is ongoing and is informed by landscape and visual considerations associated with siting and mitigation hierarchy. Viewpoints assessments from identified areas within the Lincolnshire Wolds, as well as assessments of effects on residential receptors, have</p>

Consultee	Consideration	How addressed in this PEIR
	<ul style="list-style-type: none"> Required assessment of viewpoints from Lincolnshire Wolds National Landscape. Highlighted the need to consider the visual amenity of local residents. 	<p>been included where views of the converter station are likely.</p>
Natural England 9th February 2026 (via e-mail)	<p>The following comments were received from NE:</p> <ul style="list-style-type: none"> Clarified the purpose of join landscape forum Outlined high-level requirements; Provided outline of mitigation hierarchy requirements; Outlined the requirement to further the statutory purpose; Required alignment of mitigation with LWNL Management Plan (2018-2023); and Highlighted NE role in engagement. 	<p>There is ongoing participation with joined landscape forum regarding the cumulative assessment.</p> <p>The work is ongoing to identify additional mitigation measures to further the statutory purpose of conserving and enhancing the natural beauty.</p> <p>The requirements of LWNL Management Plan (2018-2023) form part of ongoing mitigation considerations as design progresses.</p>

8.3.4 Further engagement with Natural England and other relevant consultees (Lincolnshire Wolds Joint Advisory Committee), as well as with local planning authorities, Parish Councils and the communities, will continue to inform the ES through the formal consultation process.

8.3.5 Consultations with local planning authorities will seek to ensure collaborative agreement on the study area, the selection of representative viewpoints, and the content of visualisations. Statements of Common Ground will be used to record engagement and ongoing discussions with all stakeholders throughout the Development Consent Order (DCO) process.

8.4 Data Gathering Methodology

Study area

8.4.1 The GLVIA 3 (Ref 8.4) clarifies how study areas should be determined on a project-specific basis. Paragraph 5.2 of GLVIA 3 states that the study area extent should be “... based on the extent of Landscape Character Areas likely to be significantly affected either directly or indirectly” or “on the extent of the area from which the development is potentially visible, defined as the Zone of Theoretical Visibility, or a combination of the two.”

8.4.2 The study area for the landscape and visual assessment extends 3 km beyond the boundary of the English Onshore Scheme (see **Volume 3, Part 2, Figure 8-1**).

- 8.4.3 For the assessment of effects on landscape character, the full geographical extent of identified LCU's overlapping the study area buffer has been considered as part of the assessment.
- 8.4.4 Preliminary ZTVs have been generated for the indicative zone of theoretical visibility, illustrating the theoretical visibility of the converter station (see **Volume 3, Part 2, Figure 8-6**). This ZTV assumes a current 'worst-case' scenario based on the maximum footprint within the plan, while also taking into account the maximum height of the tallest element of within the indicative zone for the new converter station, stretching across the entire footprint of the indicative converter station siting zone, without any proposed mitigation planting. This ZTV has been produced up to an extent of 10 km from the draft Order Limits, taking into account visibility within the wider landscape, including Lincolnshire Wolds National Landscape.
- 8.4.5 Further ZTV's were produced to illustrate the potential visibility of construction activity within the Construction Swathe (see **Volume 3, Part 2, 8-9**) based on the assumption that most construction vehicles would not exceed a height of 7 m, extending up to 10 km from the draft Order Limits. As there will be no permanent above ground infrastructure associated with the indicative zone for underground cable assets in operation, no ZTV's have been produced for this phase.
- 8.4.6 The theoretical visibility of the construction compounds, is based on the maximum height of 10 m, excluding the potential presence of a concrete batching plant or cranes, and has been run to the extent of 5 km from the proposed construction compounds (see **Volume 3, part 2, Figure 8-10**).
- 8.4.7 The ZTVs have been referenced, in combination with further site-based appraisal and additional desk studies, to inform the extent of the study area, capturing the area where significant adverse landscape and visual effects are expected. It is important to note that the study area defines the area within which it is judged that significant landscape and/or visual effects could occur, rather than the full extent of visibility of the English Onshore Scheme.

Desk study

- 8.4.8 A summary of the organisations that have supplied data, together with the nature of that data is outlined in **Table 8-7**.

Table 8-7 Data sources used to inform the landscape and visual assessment

Organisation	Data source	Data provided
Ordnance Survey	Digital 1:50,000 Scale Colour Raster mapping resolution. VectorMap District boundary data. (Ref 8.9)	Baseline information on landscape context, including topography, drainage, settlement pattern, land-use, woodland, promoted recreational routes, transport network and infrastructure.
Environment Agency	Digital Surface Model DSM, 1 m resolution. (Ref 8.10)	Information used for base heights of the observer points for ZTV generation.
Google	Google Earth Pro (Ref 8.11)	Baseline information in the plan and street view covers the landscape context, including topography, drainage, settlement pattern, land

Organisation	Data source	Data provided
		use, landcover, transport network, and infrastructure.
Natural England	National Landscape Character Area profiles (Ref 8.12): Lincolnshire Coast and Marshes NCA 42, Lincolnshire Wolds NCA 43.	Baseline information at a national level which sets the policy context for regional and local level landscape character assessments.
Multi-Agency Geographic Information for the Countryside (MAGIC)	MAGIC interactive map (Ref 8.13)	Baseline information to inform landscape sensitivity assessment, including details of environmental designations, for example heritage and ecology, which may influence landscape value.
National Trails	National Trails interactive mapping (Ref 8.14)	National Trails information on the existing routes.
Lincolnshire County Council	Public Rights of Way (PRoW) (Ref 8.15)	GIS dataset of public rights of way providing baseline information on the distribution of local routes.
Landscape East	East of England Landscape Character Typology 2010 ((Ref 8.16)	Regional landscape characteristics of Landscape Character Type (LCT) profiles covering the East of England and associated mapping.
East Midlands Landscape Partnership	East Midlands Region Landscape Character Assessment 2010 (Ref 8.17)	Regional landscape characteristics of LCT profiles covering counties in the East of England, including Peak District National Park and Lincolnshire Wolds National Landscape.
East Lindsey District Council	Landscape Character Assessment 2009 (Ref 8.18)	Local landscape characteristics of LCAs for East Lindsey District Council.

Survey work

- 8.4.9 Site surveys continue to be an important part of the assessment process, as they inform and helps to refine the spatial scope of the study area. Field surveys also help inform landscape character and a visual baseline, in combination with data collected from different sources.
- 8.4.10 Viewpoint and walkover surveys help to inform a detailed assessment of landscape and visual effects. Site surveys have also been undertaken to inform the route optioneering process (documented within the Corridor and Preliminary Routing and Siting Study (Ref 8.19). Field surveys have been undertaken on the following dates with identified purposes as described:
- November 2024: to inform the route optioneering process and siting of Converter Stations;
 - November 2025: to inform the landscape and visual baseline, combined with the identification of sensitive visual receptors and initial viewpoint photography; and
 - December 2025: to capture viewpoint photography from identified viewpoint locations.

- 8.4.11 Further viewpoint and walkover surveys are planned in summer 2026 and December 2026. The surveys would aim to capture summer and winter viewpoint photography at existing locations, alongside the addition of further viewpoints if required.

8.5 Overall Baseline

Current landscape character baseline

- 8.5.1 The English Onshore Scheme is located entirely within the Lincolnshire Coast & Marshes (NCA 42). In addition, Natural England published the East Midlands Region Landscape Character Assessments (Ref 8.17), which identify Landscape Character Types (LCT's), the extent of which is very similar to the LCA's identified within the East Lindsey District Landscape Character Assessment (Ref 8.19). Therefore, the assessment has been presented with reference to the LCA's identified within the East Lindsey District Landscape Character Assessment, as more detailed baseline characteristics are included in this assessment. The detailed landscape character baseline and assessment are presented in **Volume 2, Part 2, Appendix 8.C: Visual Baseline and Assessment** and illustrated in **Volume 3, Part 2, Figure 8-4** and **Volume 3, Part 2, Figure 8-5**.
- 8.5.2 The English Onshore Scheme extends from the low-lying Tetney Lock to Skegness Coastal Outmarsh LCA to a flat open landscape of reclaimed coastal marshes, where the landform becomes gently undulating, as defined by a patchwork of arable fields, linear ditches, and shelterbelts. Further inland, beyond the western extents of the draft Order Limits, the landscape transitions into the Chalk Wolds of Lincolnshire Wolds National Landscape.

Natural character

Landform

- 8.5.3 Across the English Onshore Scheme's draft Order Limits, the landform is predominantly flat and low-lying or gently undulating, with subtle topographical variation marking the transition from the coastal and Tetney Lock to Skegness Coastal Outmarsh LCA through the Holton le Clay to Great Steeping Middle Marsh LCA. To the west, the land rises toward the Lincolnshire Wolds National Landscape, where undulating farmland and dry valleys form a distinct contrast with the surrounding lowlands. The Lincolnshire Wolds edge creates a pronounced backdrop to the lower-lying Tetney Lock to Skegness Coastal Outmarsh LCA and Holton le Clay to Great Steeping Middle Marsh LCA, accentuating the perception of openness across the coastal plain.
- 8.5.4 The Tetney Lock to Skegness Coastal Outmarsh LCA, formerly tidal saltmarsh, has been progressively enclosed and drained, resulting in a lowland landscape of regular fields bounded by ditches. The Holton le Clay to Great Steeping Middle Marsh LCA, by comparison, features slightly higher ground further inland to the west, with a more gently undulating landform, an irregular field pattern, scattered woodland, and nucleated settlement.

Landscape Pattern

- 8.5.5 Within the Holton le Clay to Great Steeping Middle Marsh LCA, the landscape pattern is defined by gently undulating arable fields, enclosed by hedgerows, ditches, and occasional shelterbelts. Small woodlands, copses, and remnant hedgerows add to the

sense of enclosure and contribute to a more intimate landscape structure, particularly in the western part of this LCA. Villages are typically linear or clustered along minor roadways, with scattered farmsteads and isolated farm buildings reflecting the continuity of agricultural land use.

- 8.5.6 Moving into the Settled Fens and Marshes LCA to the east, the pattern becomes more geometric, with large, rectilinear fields set within man-made drainage network. Drainage dykes and embanked channels form the dominant visual lines within the landscape, often reinforced by slightly elevated road and rail corridors that follow historic fenland drainage alignments. The draft Order Limits are crossed by the Boy Grift Drain alongside a series of smaller drains. Settlement is sparse with isolated farmsteads, hamlets and small villages of nucleated pattern that evolved from a historic linear pattern. They are concentrated along elevated routes and embankments that afford access and relative elevation above the surrounding farmland.

Hydrology

- 8.5.7 Hydrology plays a defining role in shaping the landscape of the Tetney Lock to Skegness Coastal Outmarsh LCA and Holton le Clay to Great Steeping Middle Marsh LCA. The low-lying topography, coupled with the area's proximity to the coast, necessitates an extensive network of artificial drainage infrastructure, including ditches, dykes, and pumping stations, where much of the land remains below sea level and vulnerable to flooding without active control. These features are integral to maintaining agricultural viability and are prominent visual and ecological components of the landscape. Drainage is achieved through a combination of natural and modified watercourses, such as the Great Eau and Louth Canal within the broader landscape context, and, more locally, by Boy Grift Drain west of Huttoft and Main Drain near Anderby Creek. The numerous field drains and embanked channels, some historically associated with medieval reclamation, form a key part of the landscape's historic and functional fabric.

Geology

- 8.5.8 The Holton le Clay to Great Steeping Middle Marsh LCA and Tetney Lock to Skegness Coastal Outmarsh LCA are predominantly underlain by glacial till and alluvial deposits over cretaceous chalk, reflecting a complex history of marine regression and post-glacial sedimentation. Localised areas of sand, silt, and gravel occur along the former estuarine margins. Within the Tetney Lock to Skegness Coastal Outmarsh LCA the superficial geology comprises marine clays, peat, and tidal silts, forming the basis of the highly fertile but drainage-dependent fenland soils.
- 8.5.9 Inland, west of the study area, the underlying geology transitions to chalk bedrock, overlaid by glacial drift deposits. These deposits contribute to the well-drained soils and fertile agricultural conditions that characterise the Lincolnshire Wolds farmland and its transitional slopes.
- 8.5.10 Beyond the draft Order Limits, the wider coastal landscape of East Lindsey continues to exhibit the characteristic sequence of coastal saltmarshes, mudflats, and intertidal sand flats, shaped by the interplay of marine and fluvial processes. These zones provide a natural transition from the low-lying reclaimed marshes to the open coastal fringe. Inland, to the west of draft Order Limits, the Lincolnshire Wolds National Landscape rises as a contrasting landform defined by glacial and periglacial deposits overlying Cretaceous chalk, influencing the local topography and hydrology that feed the adjacent marsh and fens crossed by the draft Order Limits.

Flora & Fauna

- 8.5.11 The landscape within the draft Order Limits is dominated by intensive arable cultivation. Field boundaries are typically formed by drainage ditches lined with reeds and sedges, interspersed with sparse hedgerows containing hawthorn, elder, and willow. Occasional mature hedgerow trees, small shelterbelts, and fragments of semi-natural woodland provide habitat connectivity and visual diversity.
- 8.5.12 Tree cover generally increases slightly towards the Middle Marsh and along the lower slopes of the Lincolnshire Wolds National Landscape, where mixed woodland and hedgerow networks create a more enclosed character. However, considering the landscape within and adjacent to draft Order Limits, the field boundary vegetation within draft Order Limits is sparse and increases more notably west of Alford. The outmarsh along coastal areas remain largely open and exposed, with riparian vegetation dominating along drain channels and sporadic hedgerow and trees. The coastal margin itself that forms the transition between onshore and offshore elements of the Project providing valuable habitat for wetland bird species, aquatic flora, and invertebrates, contributing to local biodiversity interest.

Cultural/Social Land Use character

- 8.5.13 Land use within the draft Order Limits is almost entirely agricultural, dominated by arable cropping such as cereals, oilseed rape, and root vegetables. Pastoral use is limited and typically confined to wetter areas or small grassland parcels adjacent to drainage corridors and coastal outmarsh. Settlement within and adjacent to the draft Order Limits is sparse, with scattered, small hamlets and villages situated along minor roads on raised ground. Larger settlements, such as Skegness or Mablethorpe, are distant and therefore exert limited visual influence due to intervening vegetation. The coastal areas are under pressure from recreational uses, with many local villages accommodating caravan sites. Although Anderby Creek has several caravan parks, their presence is considerably less than in Chapel St. Leonards. This is also the case for local villages, such as Huttoft, with the nearby Jolly Common Caravan Park. The cultural, social and land use character in the vicinity of draft Order Limits is characteristic of the wider landscape within and beyond the study area.

Settlement

- 8.5.14 Settlement patterns across the outmarsh and middle marsh are dispersed, with isolated farms and small linear villages aligned along roads and drains. This pattern reflects the historic enclosure and reclamation process, as well as the ongoing dominance of agriculture. A nucleated settlement pattern dominates, influenced by topography and the historic pattern of enclosure. Built form near draft Order Limits is generally modest in scale and traditional in character, featuring brick-built farmhouses, agricultural buildings, and scattered hamlets. More substantial urban development is limited to nearby towns outside the study area.
- 8.5.15 The outer study area includes a mixture of coastal and inland settlement patterns, reflecting both the topographic and historical development of the region. Along the coast, larger clusters of settlement, such as Mablethorpe and Sutton-on-Sea, have evolved as seaside towns situated on slightly elevated ground above the tidal flats, whereas further inland, settlements tend to be smaller, rural and dispersed, often following historic drainage corridors or elevated routes across reclaimed marsh and fen.

Time Depth

- 8.5.16 Time depth recognises natural and man-made changes that influence the current landscape and how it is perceived. The draft Order Limits cross through two of Lincolnshire's Historic LCAs: The Grazing Marshes and The Lincolnshire Wolds. The landscapes traversed by the draft Order Limits display considerable time depth, with evidence of human occupation and modification extending from the prehistoric period through to the modern day. The pattern of drainage, enclosure, and settlement reflects successive phases of reclamation and agricultural improvement, particularly across the coastal outmarsh and settled fens and marshes, where land has been progressively engineered to control water levels and extend the area of cultivable ground.
- 8.5.17 Major phases of drainage and land reclamation occurred between the 17th and 19th centuries, when extensive engineered channels and embankments were constructed to control water and enable large-scale cultivation. Straightened roads and drains mirror the geometric field patterns imposed during enclosure, while isolated farmsteads and pumping stations illustrate the continuous process of managing and maintaining the reclaimed land. Over time, further mechanisation and the removal of traditional hedgerows have increased the openness and scale of the agricultural landscape.
- 8.5.18 At the western fringes of the draft Order Limits, the Lincolnshire Wolds National Landscape provides a markedly different historic landscape context. Here, the topography, geology, and settlement pattern reveal a longer continuity of occupation and land use, characterised by medieval open-field systems, ridge and furrow, and later enclosure by hedgerow. The gently rolling farmland and nucleated villages contrast with the open reclaimed plains to the east.

Cultural Associations

- 8.5.19 The wider landscape around Lincolnshire has played a significant role in shaping regional and national cultural identity. Their distinct topography, open skies, and interplay between land and water have long been sources of artistic and literary inspiration.
- 8.5.20 Prominent cultural figures such as Alfred Lord Tennyson, who was born and raised within the Lincolnshire Wolds, drew inspiration from the area's tranquil and pastoral character. The expansive views and changing light of the marshes and fens, together with the intimacy of the wolds valleys, have been depicted in both painting and literature, capturing the contrasts that define the Lincolnshire landscape.
- 8.5.21 In addition to literary associations the landscapes of East Lindsey reflect a deep connection to local identity and sense of place. The enduring agricultural traditions, distinctive settlement forms, and patterns of reclamation remain integral to community character and continue to shape how the landscape is perceived and valued today.

Perceptual & Aesthetic

Views

- 8.5.22 Views across the outmarsh, and marshland landscape are typically wide, open, and horizontal in nature, offering long vistas over arable fields framed by drainage dykes, distant shelterbelts, and isolated farm buildings. Coastal views out to the North Sea are panoramic and widely unbroken, whilst inland sporadic tidal defences and sand dunes can occasionally break up the views. The subtle topography and absence of major vertical features create a strong sense of openness offering panoramic views both east and west, such as from King Charles III England Coast Path National Trail.

- 8.5.23 Inland, within the Middle Marsh and towards the fringe of the Lincolnshire Wolds, the landform becomes more gently rolling, introducing variation and partial enclosure and considerable degree of enclosure although close to middle distance views maintain frequently open character. Views here are often contained by hedgerows and small woodlands, creating a more intimate landscape character. The rising ground of the Lincolnshire Wolds National Landscape forms a prominent backdrop in many views, providing visual containment and orientation within the wider landscape.
- 8.5.24 The contrast between the low-lying fenland and the elevated Wolds enhances visual diversity and contributes to the distinct identity of this transitional landscape. The Wolds ridges, when viewed from the lower plains, act as key visual landmarks, while from higher ground, expansive vistas extend across the outmarsh and fens towards the coast.

Tranquillity

- 8.5.25 A sense of tranquillity dominates throughout much of the landscape within the study area, particularly across the coastal outmarsh and middle marsh, where sparse settlement, low population density, and the dominance of agricultural land use create a perception of isolation and remoteness. The extensive views and open skies reinforce the quiet, rural atmosphere.
- 8.5.26 Within the study area tranquillity is occasionally diminished in proximity to key transport corridors, such as sections of the A16, where traffic noise and movement introduce localised disturbance. A number of 'A' roads fall within the draft Order Limits, such as the A52, A1104, and A1111/Alford Road, which create localised disturbances of tranquillity. Similarly, areas near settlement edges experience reduced tranquillity, although these influences remain limited and discrete.
- 8.5.27 To the west of the draft Order Limits the tranquillity increases once more, aided by both the enclosed character of the landscape and limited modern intrusion as well as the proximity of the Lincolnshire Wolds National Landscape. The combination of topographical variation, small-scale field structure, and vegetative enclosure creates a more secluded, reflective landscape experience.

Published Landscape Character Assessments

- 8.5.28 Landscape character is a composite of physical, cultural, perceptual and aesthetic elements. Landform, hydrology, vegetation, land cover, land use patterns, cultural and historic features, and associations combine to create a common 'sense of place' and identity that can be used to categorise the landscape into definable types and areas. Published landscape character assessments provide baseline information that is used to guide landscape change. Below, a reference has been made to published Landscape Character Assessments at National, Regional and District scale alongside HLC.

National Landscape Character

- 8.5.29 At the national scale, Natural England mapped and designated NCA in 2013-15 (0) based on recognised and identifiable characteristics. The NCAs that the draft Order Limits passes through are shown in **Volume 3, Part 2, Figure 8-4**. Further detail is provided in **Volume 2, Part 2, Appendix 8.B: Landscape Character Baseline and Assessment**.

Regional Landscape Character

- 8.5.30 At the regional scale, East Midlands Landscape Partnership published the East Midlands Region Landscape Character Assessment (Ref 8.17), and Landscape East published the East of England Landscape Character Typology (Ref 8.18). These define LCTs and LCAs, which provide landscape characterisation at a regional level. The LCTs and LCAs that fall within the area the draft Order Limits passes through are shown in **Volume 3, Part 2, Figure 8-5**. Further detail is provided in **Volume 2, Part 2, Appendix 8.B: Landscape Character Baseline and Assessment**.

District Landscape Character

- 8.5.31 At the district scale, the study area traverses through East Lindsey District Council, and therefore, the assessment has been carried out with reference to East Lindsey District Landscape Character Assessment (Ref 8.20). **Volume 3, Part 2, Figure 8-5** shows the LCAs and LCTs that the draft Order Limits traverses. Further detail is provided in **Volume 2, Part 2, Appendix 8.B: Landscape Character Baseline and Assessment**.
- 8.5.32 The Lincolnshire Wolds AONB Management Plan (Ref 8.21) defines four local LCA's. The draft Order limits do not cross into the Lincolnshire Wolds National Landscape but are located approximately 1.3 km at the closest point. The South-Eastern Claylands LCA, identified within the Lincolnshire Wolds AONB Management Plan cross over marginally with draft Order Limits. However, the South-Eastern Claylands LCA and the Ridges and Valleys of the South West LCA have been excluded from the assessment as they will not be directly affected, and any perceived change would be indirect and short-term at a scale that would not affect the LCA's inherent qualities.

Landscape Designations

- 8.5.33 The study area overlaps marginally with the Lincolnshire Wolds National Landscape. The section below includes a description of special qualities that contribute to the 'natural beauty' and 'sense of place' of this landscape. **Table 8-8** below details key special qualities of the Lincolnshire Wolds National Landscape, which are detailed within the Lincolnshire Wolds AONB Management Plan 2018 - 2023 (Ref 8.21).

Table 8-8 Special Qualities of Lincolnshire Wolds National Landscape

Special Quality	Key features, including quality and extent
Landscape Character	<p>Scenic beauty & rural charm: Undulating landscape with strong cohesive identity throughout and agriculture as a core underlying feature.</p> <p>Expansive, sweeping views: Panoramic, dramatic vistas from peaks and elevated plateaus looking out across the surrounding landscapes.</p> <p>Peace & tranquillity: General sense of remoteness and rural isolation away from main roads enhanced by raised plateaus and secluded valleys.</p> <p>Farmed land: Rectilinear fields of agricultural cultivation cover most of the area with additional areas of permanent grassland.</p>
Earth Heritage	<p>Chalk upland plateau & valley landscape: Key geological character formed by a chalk capping underlain by a series of clay, sandstones, and ironstones, that have been established by at least two cycles of glaciation.</p>

Special Quality	Key features, including quality and extent
Biodiversity	<p>Glacial/periglacial features: Remains of glacial and periglacial geological features, particularly outside of the Northwest Scarp LCA. Including remnant lakes and spillways.</p> <p>Geological qualities: Evidence of pits throughout the National Landscape, typically either overgrown or infilled, that demonstrate geological qualities of the area.</p> <p>Calcareous, meadow, pasture & wet grasslands: Roughly 13% of the National Landscape consists of calcareous meadow, pasture and wet grassland including over 55 sites with primary grassland chosen as Local Wildlife Sites, as well as 10 SSSI across the area.</p> <p>Beech clumps: Clumps of Beech scattered throughout the landscape, with most copses located in the Chalk Wolds LCA.</p> <p>Woodlands: Range of mixed woodlands, largely 18th or 19th century plantings, mainly broadleaved, covering 4.4% of the area.</p> <p>Ancient Woodlands: Patches of ancient woodland, but highly visible, including several SSSI, totalling roughly 600 ha, predominantly consisting of oak and ash.</p> <p>River, streams, and ponds: Complex network of waterways including 9 principal river systems, spring line sources, and streams.</p> <p>Hedgerows: Predominantly enclosure hedgerows bounding agricultural fields, though small patches of species rich pre-enclosure hedgerows remain in places.</p> <p>Roadside verges and green lanes: Broad verges alongside some ancient, drover's and salter's roads provide valuable flower rich habitats and notably 17 roadside nature reserves (RNR) within the area.</p>
Archaeology	<p>Ancient route-ways: Roman roads, salter routes, and drover routes are key features throughout the whole of the National Landscape with many acting as byways within the area.</p> <p>Scheduled monuments: Archaeologically rich area with around 100 Scheduled Monuments within the National Landscape.</p> <p>Burial mounds & monuments: Abundance of barrow sites can be seen on the chalk tops and connecting routes, along with 13 Anglo-Saxon cemeteries scattered throughout the landscape.</p> <p>Deserted medieval villages & shrunken medieval villages: High volume of deserted or shrunken medieval villages located on plateaus and around spring lines across the majority of the National Landscape, excluding the Southeastern Claylands LCA.</p> <p>Roman villas and settlements: Some presence of Roman villas and settlements across the National Landscape, with higher concentration of features within the Chalk Wolds LCA.</p>
Cultural Associations Historic Landscapes & Buildings	<p>Literary/artistic: Cultural associations recognised in poetry, art and writing, influencing also local vernacular dialect.</p> <p>Village character, including churches: The National Landscape has a significant number (72) of villages with distinctive churches and a smaller number (16) of villages without a church with many houses constructed of brick and pantile.</p>

Special Quality	Key features, including quality and extent
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Conservation areas: Throughout the area there are 343 listed buildings, and heritage features of grade I, II & III, as well as several Conservation Areas.

Traditional farm buildings: Large number of traditional agricultural buildings, particularly planned Victorian farmsteads, with the majority located within the Chalk Wolds LCA and Southwestern Ridges and Valleys LCA.

Industrial heritage, airfields, railways and mine workings: Pockets of industrial and military heritage across the whole of the National Landscape, including nine historic military sites, former airfields and old railway lines.

Moated sites: There are several moated sites, primarily located within the Southwestern ridges and valleys LCA.

Watermill & Windmills: Records of locations across the area with remains of structures in about a dozen places.

Dry stone walls: Drystone walls are characteristic for the Northwest Scarp LCA.

- 8.5.34 Although ‘*natural beauty*’ is not defined within the Lincolnshire Wolds AONB Management Plan 2018-2023 (2018) (Ref 8.21), the reference has been made to the definition published by the Countryside Agency (2001) (Ref 8.22) (at present Natural England): “*Natural beauty*’ is not just the visual element of the landscape, but includes landform and geology, plants and animals, landscape features and the rich history of human settlement over the centuries”, encompassing qualities extending beyond the ‘*scenic beauty*’.

Relevant Designations

- 8.5.35 In addition to the above, the study area also contains the following heritage and ecological designations:
- Listed Buildings;
 - Scheduled Monuments;
 - Registered Parks and Gardens;
 - Conservation Area;
 - Ancient Woodland;
 - Local Nature Reserves (LNR);
 - Special Protection Area (SPA); and
 - Sites of Special Scientific Interest (SSSI).
- 8.5.36 The impacts and effects on these designations will not be assessed within the LVIA as they are to be considered in other aspect specific chapters; however, they will inform the judgement of landscape value and contribute to designations of present-day landscape character and visual amenity. Their location is shown in **Volume 3, Part 2, Figure 8-5**.

Visual baseline

- 8.5.37 The following narrative provides an overview of visual baseline characteristics, describing the key characteristics of views and visual amenity of the landscape where the English Onshore Scheme is located just to the west of Alford and stretches to the east for approximately 13 km toward the North Sea Coast. Additionally, specific details of the visual baseline are included via the context descriptions with reference to key settlements and recreational receptors (included within **Volume 2, Part 2, Appendix 8.C: Visual Baseline and Assessment**) and illustrated in Figures (**Volume 3, Part 2, Figure 8-7** and **Volume 3, Part 2, Figure 8-8**). The viewpoints are illustrated in Figures (**Volume 3, Part 2, Figure 8-11 to 8-39**).
- 8.5.38 The most eastern extent of the English Onshore Scheme draft Order Limits is characterised by a broad coastal margin defined by open beaches, raised dunes, and intertidal sand flats. It is a visually open and dynamic environment, strongly influenced by coastal processes, availability of sea views, and expansive skies. The dunes provide a degree of containment and elevation, offering extensive panoramic views inland across coastal farmlands and westward towards the distant skyline of the Lincolnshire Wolds.
- 8.5.39 This area supports recreational use along the King Charles III England Coast Path National Trail, beach access points, frequently allowing inland and sea views along and seasonal visitor infrastructure, including car parks and caravan or holiday parks concentrated near Anderby Creek. Despite these interventions, the coastal landscape retains a predominantly naturalistic and remote character, in which human activity is generally seasonal and visually subordinate to the scale of the coastline. The sense of openness and exposure to natural forces is a defining characteristic, contributing to the strong perceptual identity and scenic quality of this coastal environment.
- 8.5.40 Moving inland from the coastal margin, the draft Order Limits traverse an area of settled fen and outmarsh landscape, broadly with flat, low-lying, and extensively drained and farmed landscape of open arable fields enclosed by rectilinear drainage ditches and embanked watercourses with frequently open and panoramic views across rural landscape, with distant field boundary vegetation seen against the horizon. The settlement pattern is characterised by small, nucleated villages and dispersed farmsteads linked by a network of narrow rural lanes with frequent shelterbelts around settlements in places also along the local road network, such as between Huttoft, Mumby and Sutton-on-Sea.
- 8.5.41 Vegetation is limited, with localised shelterbelts concentrated around settlement edges and occasionally along roads, and field boundaries where hedgerow remnants persist. Many field boundaries are marked by drainage ditches. This results in a visual experience of extensive horizontal openness, with long views occasionally punctuated by small clusters of vegetation or views of the coastal dunes to the east. The simplicity and repetition of field patterns, drainage features, and farms contribute frequently to large scale views with modest enclosure. Settlement features and occasional vertical structures such as telegraph poles or distant church towers act as reference points within this otherwise expansive and visually uniform setting.
- 8.5.42 West of the settled fenland around Huttoft or Rigby, the draft Order Limits enter a more varied agricultural landscape, aligning with the middle marsh and marsh margin fenland. Here, subtle changes in landform and drainage create a slightly more enclosed and textured landscape. Fields are arranged in a more irregular pattern, often smaller than those of the coastal outmarsh, with a greater incidence of hedgerows, tree belts, and riparian vegetation along drainage channels. Villages such as Alford and Bilsby occupy slightly raised ground, forming discernible nodes of settlement and activity within the

broader agricultural context. The views from these settlements are severely restricted by dense shelterbelts, garden vegetation and built form.

- 8.5.43 The Middle Marsh exhibits a transition between the flat fenland and the undulating slopes of the Wolds to the west, producing a more intricate visual composition. Although still predominantly agricultural, with arable land prevailing, the increased tree cover creates a visually more enclosed landscape with more frequent views of the raised landform of the Lincolnshire Wolds National Landscape. Long-distance views remain long and open, but the rolling ground and vegetation layers introduce greater visual depth and a sense of enclosure than those of the lower-lying coastal plain.
- 8.5.44 The most western extent of the study area lies along the fringe of the Lincolnshire Wolds. Here, the landform rises more distinctly, marking a perceptible change in topography and landscape character. The rolling slopes, wooded ridges, and defined field patterns create a landscape of greater containment and scenic diversity. Tree belts, shelterbelts, and estate woodlands associated with historic landscapes provide structure and enclosure, in contrast to the open, expansive vistas of the adjoining fen and marsh areas to the east.
- 8.5.45 The Lincolnshire Wolds fringe possesses a strong sense of visual unity and rural character, balanced agricultural use, woodland, and settlement. Villages such as Alford, located near the transition zone, serve as gateways between the lower marsh landscapes and the upland Wolds. The elevated ground affords far-reaching views eastwards across the middle marsh and coastal plain, reinforcing the topographical hierarchy that underpins the wider visual relationship between the coast and inland Lincolnshire. The Lincolnshire Wolds form an important visual backdrop to the draft Order Limits, contributing to the landscape setting and scenic composition of the outer study area.
- 8.5.46 The section below outlines key recreational and visual receptors and provides a brief overview of the nature of views available alongside identified viewpoints.

Residential Receptors

- 8.5.47 Settlement in the study area consists of dispersed small settlements frequently with properties aligned along the local winding roads, resulting in a nucleated settlement pattern. Residential properties within settlements are generally two-storey, with some three storey buildings found within the larger settlements at Sutton-on-Sea and Alford. Built form, and vegetation within gardens and along field boundaries frequently restricts views towards the draft Order Limits from settlements such as Rigsby and Sutton-on-Sea, although existing views are available for a limited number of residential receptors where existing conditions allow for clear views of the draft Order Limits, such as at Mumby, Bilsby, and Asserby.

Viewpoints:

- 8.5.48 The following viewpoints are representative of residential receptors in the context of English Onshore Scheme, as illustrated on:
- Viewpoint 1: Crawcroft Lane, Southern Edge of Hannah (Winter Photography);
 - Viewpoint 5: Huttoft Road, south-east of Thurlby (Winter Photography);
 - Viewpoint 6: Eastern Edge of Bilsby (Winter Photography);
 - Viewpoint 7: A111, Sutton Road, south of Markby (Winter Photography);
 - Viewpoint 8: Well High Lane, west of Well (Winter Photography);

- Viewpoint 14: A111, Sutton Road, Markby (Winter Photography);
- Viewpoint 15: Southern End of Rossa Lane (Winter Photography);
- Viewpoint 16: Farlesthorne Road, Willoughby Branch Line Nature Reserve (Winter Photography);
- Viewpoint 20: Halcyon, Mill Lane, east of Saleby (Winter Photography); and
- Viewpoint 23: A52, Sutton Road, northern edge of Huttoft (Winter Photography).

Recreational Receptors

Viewpoints:

- 8.5.49 PRoW are frequent and scattered throughout the study area, often running along the field boundaries within the wider agricultural landscape. In general, PRoW offer open views of the countryside, although a combination of intervening vegetation and topography limits views in several locations (such as south of Alford, south and southeast of Mumby, and immediately to the south of Anderby). Views towards the draft Order Limits are frequently afforded from locations along PRoW at the edge of settlements, located near and facing the draft Order Limits, and are available from PRoW near Rigsby, Ailby, North of Alford, Thoresthorpe, south of Bilsby, Saleby, Huttoft, south of Sutton-on-Sea, south of Asserby and northwest of Anderby Creek.
- 8.5.50 The King Charles III England Coast Path North East National Trail runs parallel to the coastline, passing through the study area, crossing the draft Order Limits between Sutton-on-Sea and Anderby Creek. The land to the west of the National Trail is flat and low-lying, with occasional mounds associated with the golf course that screen views towards the draft Order Limits. Views from PRoW elsewhere within the study area are generally open across large agricultural fields filtered by surrounding field boundary vegetation.

Viewpoints:

- 8.5.51 The following viewpoints are representative of recreational receptors in the context of English Onshore Scheme:
- Viewpoint 2: King Charles III England Coastal Path near Huttoft Beach (Winter Photography);
 - Viewpoint 3: PRoW Ande/16/1, Sea Road, Anderby (Winter Photography);
 - Viewpoint 4: PRoW Hutt/13/1, south-west of Huttoft (Winter Photography);
 - Viewpoint 9: Roman Bank, west of Anderby Creek Caravan Park (Winter Photography);
 - Viewpoint 10: PRoW Ulce/83/1, south-west of Rigsby (Winter Photography);
 - Viewpoint 11: PRoW Sale/290/1, east of Greenfield (Winter Photography);
 - Viewpoint 12: PRoW Malt/256/2, Maltby le Marsh (Winter Photography);
 - Viewpoint 13: PRoW Bils/13/1, east of Thurlby (Winter Photography);
 - Viewpoint 17: PRoW Cumb/365/1, west of Cumberworth (Winter Photography);
 - Viewpoint 18: Route with Public Access, west of Mumby (Winter Photography);

- Viewpoint 19: Junction of PRowS Sale/281/2, Sale/284/1 and Sale/281/3, south of Thoresthorne (Winter Photography);
- Viewpoint 21: PRowS Bils/11/1, south-east of Asserby (Winter Photography);
- Viewpoint 22: PRowS Hutt/14/1, east of Asserby (Winter Photography);
- Viewpoint 24: PRowS SuOS/335/1, Southern edge of Sutton-on-Sea (Winter Photography);
- Viewpoint 25: PRowS Hutt/15/1, Crawcroft Lane (Winter Photography);
- Viewpoint 26: PRowS Hutt/2/3, east of Huttoft (Winter Photography);
- Viewpoint 27: PRowS Chap/21/2, west of Wolla Bank Pit Nature Reserve (Winter Photography);
- Viewpoint 28: PRowS Hutt/2/2, east of Huttoft (Winter Photography); and
- Viewpoint 29: Anderby Creek Beach (Winter Photography).

Future baseline

- 8.5.52 The future baseline relates to known or foreseeable changes to the current baseline in the future, against which the effects of the English Onshore Scheme can be assessed during construction and operation. Specifically, it accounts for anticipated changes, including those caused by changing climatic conditions, policy and legislation, and by other confirmed development projects that would be completed prior to construction of the English Onshore Scheme.
- 8.5.53 Consideration was given to the following types of change that could potentially alter the landscape and visual environment:
- The natural evolution of the landscape, for example, growth of existing vegetation would alter existing landscape character, and these vegetation features as a component in existing views.
 - The potential dieback or spreading of plant diseases affecting trees, hedgerows and other habitats may have a potentially considerable impact on the retention of existing structure and pattern of vegetation. However, as both the spread of diseases and the resilience of particular species are difficult to foresee for the purposes of the assessment, it has been assumed that local policy will help protect and preserve the current species composition.
 - The loss of existing elements and features in the landscape, for example, due to land take from planned developments in the area, leading to changes in landscape character and resulting enclosure of existing views for visual receptors.
 - The introduction of further infrastructure, such as energy transmission infrastructure or renewable schemes such as solar farms or wind farms.
 - The lowering of water tables may result in changes to the composition of vegetation along water courses, reducing the presence of riparian habitats and trees that generally thrive in riparian habitats.
 - Higher water tables are likely to result in flooding and may result in damage to flood defences, agricultural crops, existing vegetation and habitats but also to residential properties and existing infrastructure.

- A slow-paced increase of woodlands and hedgerows within coastal marshes landscape is expected through continued support of Environmental Stewardship Schemes. There is likely to be a continuous loss of wetland pastures, occasionally replaced by wetland woodlands within the fenland landscape.
- The introduction of new receptors, for example, residents of new dwellings or small-scale expansion of local settlements under construction that are expected to become occupied and subsequently exposed to views of the English Onshore Scheme during construction and/or operation.
- Consideration has also been given to nationally designated landscapes such as the Lincolnshire Wolds National Landscape, located approximately 1.3 km to the west of the English Onshore Scheme and recommendations of the Landscape Review (Ref 8.23), were analysed to inform broader consideration of future potential baseline relating to nature recovery, biodiversity, climate change and greater public access.

8.5.54 The ES will include assessment of schemes under construction and those planned as part of cumulative assessment. Further detail of **Volume 1, Part 4, Chapter 27: Cumulative effects**.

8.6 Environmental Measures

8.6.1 As set out in **Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology** the environmental measures are characterised as design measures or control and management measures. A range of environmental measures would be implemented as part of the English Onshore Scheme and will be secured in the DCO as relevant. **Table 8-9** outlines how these design and control measures will influence the landscape and visual assessment. In addition to the measures listed in **Table 8-9** standard mitigation measures are not listed to avoid repetition. These measures comprise management activities and techniques to be implemented during the construction of the English Onshore Scheme to limit effects by adhering to good site practices and achieving legal compliance.

Table 8-9 Summary of the environmental measures

Receptor	Potential changes and effects	Environmental measures	ID reference
Construction			
Landscape receptors	Potential loss of trees and hedgerows.	The Contractor would retain vegetation where practicable and in accordance with the Landscape and Ecology Management Plan (LEMP). Where vegetation is lost and trees cannot be replaced in situ due to land rights required or operational safety, suitable native planting approved by NGET will be used as a replacement in accordance with the outline vegetation reinstatement plans included in the LEMP. Where possible replacement tree planting would be undertaken at the closest suitable location to the area of loss.	MT02 (C)
Landscape receptors	Alteration to the aesthetic and perceptual aspects of landscape, such as scale, complexity, openness, tranquillity, and wildness.	The existing landscape pattern, including vegetation, will be restored at the end of the construction phase. Vegetation will be restored in the same or nearby locations due to land rights required or for operational safety. Other measures would include the introduction of mitigation planting at the converter station and consideration of potential enhancements to reduce the adverse significant effects.	LV01 (C)
Landscape receptors	Alteration to the overall landscape character within identified LCU's.	A combined change during construction may alter landscape character within identified landscape character units. The ongoing design work is being progressed by multidisciplinary teams, with consideration of the mitigation hierarchy, including avoidance, prevention, reduction, and offset, followed by consideration of potential enhancements to avoid or reduce impacts on landscape character.	LV02 (C)
Visual receptors	Change in views due to the loss of existing elements and the introduction of construction activities and construction elements.	The change in views would be managed through both sensitive design measures to avoid views of nearby settlements, PRoW, and the Lincolnshire Wolds National Landscape, as well as various good-practice measures set out in Volume 2, Part 1, Appendix 5.B: Outline Code of Construction Practice (CoCP) and additional mitigation measures to be considered at the ES stage e.g., placement of topsoil and subsoil adjacent to the trench where possible.	LV03 (C)

Receptor	Potential changes and effects	Environmental measures	ID reference
		All Public Rights of Way (PRoW) which have the potential to be impacted by the Projects will be identified in an Outline PRoW Management Plan (PRoWMP). The PRoWMP set out the measures required (including any potential temporary closures applied for/detailed in the DCO) to ensure that that PRoW remains safe to use and any that any potential disruption PRoW is minimised.	
Landscape and visual receptors	Loss of riparian vegetation.	Riparian vegetation loss will be avoided where possible and limited through construction techniques such as trenchless crossings. Where it will occur, replacement seeding/planting will be undertaken.	LV04 (C)
Operation			
Landscape receptors	Integration of permanent components of the English Onshore Scheme within the existing landscape, including the introduction of new components, alteration to aesthetic and perceptual qualities and landscape character.	As the key components of the English Onshore Scheme comprise a cable corridor, with land use restored after completion, the mitigation will focus on reinstatement and consideration of potential enhancements along the HVDC and HVAC). An outline landscape strategy will be prepared for the converter station, encompassing a collaborative approach to delivering landscape and biodiversity mitigation as well as biodiversity net gain (BNG). It will be developed in recognition of local landscape policies and character, considering opportunities to enhance local landscape and biodiversity, and will continue to be developed as part of the iterative design and assessment process.	LV01 (D)
Landscape receptors	Permanent change in views from visual receptors.	The design of the converter station, including the building form and external materials, will be developed through consultation and stakeholder feedback. A Design Code for these buildings will be provided with the application for development consent, providing guidance on the design intent and principles to be adopted and embedded in the detailed proposals for this structure.	LV02 (D)
Landscape and visual receptors	Landscape integration of replacement and enhancement planting.	A five-year aftercare period will be established for all reinstatement and mitigation planting.	LV03 (D)

8.7 Scope of the Assessment

Spatial scope and study area

- 8.7.1 The spatial scope for assessing landscape effects has been established through a combination of desk study and field work to establish key landscape components, such as vegetation, perceptual qualities, including views and overall landscape character that may be affected by the English Onshore Scheme. The purpose of these initial studies was to establish the extent of the landscape, its components, and characteristics that may be significantly affected by relationships with features of heritage and ecological value, and with landscape designations such as the Lincolnshire Wolds National Landscape.
- 8.7.2 The spatial scope of assessment for visual effects has been informed by identifying the area in which the English Onshore Scheme is likely to be visible and where visual receptors have the potential to be significantly affected, verified through field surveys and professional judgement. The study area is set at 3 km from the draft Order Limits, extending from Mean High Water Springs (MHWS) levels along the coastline, as illustrated in the following figures:
- **Volume 3, Part 2, Figure 8-6: Screened ZTV - Converter Station;**
 - **Volume 3, Part 2, Figure 8-7: Screened ZTV - Residential Receptors;** and
 - **Volume 3, Part 2, Figure 8-8: Screened ZTV - Recreational Receptors.**
- 8.7.3 The spatial scope has been further informed through the mapping of preliminary ZTVs for the Indicative zone for underground cable assets and the Indicative zone for construction compounds, which assume a 'worst-case' scenario (see **Volume 3, Part 2, Figure 8-9** and **Volume 3, Part 2, Figure 8-10**). The ZTVs have been referenced, in combination with further site-based appraisal and additional desk study to consider an area where there is a potential likelihood of any significant effects within a specific area to ensure a proportionate approach is followed which focuses on potentially significant effects.
- 8.7.4 It is important to note that the study area defines the area within which it is judged that significant landscape and/or visual effects are likely to occur, rather than the full extent of visibility of the English Onshore Scheme. In accordance with paragraph 5.2 of GLVIA 3 (Ref 8.1), it is recognised that the selection of receptors may change as the English Onshore Scheme progresses, for example as a result of field work and changes to the design. Some receptors within the study area may have very localised theoretical visibility, indicated by the ZTV, for example, from isolated locations on the edge of a settlement. In some instances, field surveys can establish that intervisibility from particular locations would, in reality, be further restricted by landscape elements not included in the ZTV models, for example, walls, fences, hedgerows and tree cover outside the larger woodland blocks.
- 8.7.5 The extent of the study area will be kept under review till the start of work on the ES.

Temporal scope

- 8.7.6 The temporal scope of the Landscape and Visual assessment is consistent with the period over which the English Onshore Scheme would be carried out. As detailed in **Volume 1, Part 1, Chapter 4: Description of the Project**, it covers the period 2029 – 2035 for construction, and the lifetime of the Project for operation (expected to operate for 40 years, although likely extended through replacement and repair).

8.7.7 Permanent effects correspond to operational effects that include permanent and temporary changes associated with maintenance. Operational effects are expected to be permanent. At the PEIR stage, landscape and visual assessment have been undertaken with reference to the following stages of the English Onshore Scheme:

- Construction;
- Operation Year 0; and
- Operation Year 15.

8.7.8 The English Onshore Scheme is expected to have a minimum life span of approximately 40 years. If decommissioning is required at this point in time, then activities and effects associated with the decommissioning phase are expected to be of a similar level to those during the construction phase works, albeit with a lesser duration of two years. Acknowledging the complexities of completing a detailed assessment for decommissioning works up to 40 years in the future, it is considered that the significance of effects relating to the decommissioning phase would be no greater than those from the construction phase and decommissioning effects are not discussed in detail in this chapter; however, Table 4-19 in **Volume 1, Part 1, Chapter 4: Description of the Project** provides a high level summary assessment of the likely significant effects associated with decommissioning. Furthermore, should decommissioning take place it is expected that an assessment in accordance with the legislation and guidance at the time of decommissioning would be undertaken.

Identification of receptors

8.7.9 The key landscape and visual receptors that are likely to be subject to potential significant effects are summarised in **Table 8-10** below.

Table 8-10 Landscape and visual receptors subject to potential effects

Receptor	Reason for consideration
Landscape receptors	
Existing landscape elements within the draft Order Limits.	A combination of existing landscape elements which contribute to the characteristics of a landscape, where removal could result in direct effects e.g. vegetation.
Landscape Character Units	Potential direct and indirect effects on the key qualities of identified LCU's, which form part of the landscape character assessment.
Landscape Designations	Landscape Designations, such as National Landscapes, which could experience direct and indirect effects.
Visual Receptors	
Local communities, including occupiers of residential properties, visitors to local attractions, caravan parks, people using designated walking trails, PRoW and cycle routes.	Views and the immediate visual environment are important to residents and recreational receptors.

Potential effects considered within this assessment

8.7.10 The effects on landscape and visual receptors, which have the potential to be significant and have been taken forward for detailed assessment are summarised in **Table 8-11**.

Table 8-11 Landscape and visual receptors scoped in for further assessment

Receptor	Reason for consideration
Existing landscape elements within the draft Order Limits	A combination of existing landscape elements contributes to the characteristic of landscape character. Potential changes to existing landscape elements will inform the assessment of effects on identified LCU's.
Landscape Units within the draft Order limits	Character The effects on the key qualities of identified LCU's form part of the landscape character assessment. The subtraction of landscape elements and potential introduction of elements associated with the English Onshore Scheme will inform the assessment of landscape character effects on identified landscape character units.
Landscape Designations	Landscape Designations, such as National Landscapes, are protected, and the proposals are required not to detract from the natural beauty of the National Landscape.
Residential receptors within the 3 km study Area, where ZTV indicates potential intervisibility.	Residents have a strong interest in their immediate environment and may be potentially impacted by the presence of temporary construction activity, the temporary or permanent loss of vegetation or the permanent appearance of above-ground structures within the landscape during operation, such as a converter station.
Recreational receptors comprising PRoW users and users of other recreational routes and other outdoor recreational users.	The attention of recreational users may be focused on the surrounding landscape and may be potentially impacted upon by the presence of temporary construction activity, the temporary or permanent loss of vegetation or the permanent appearance of above-ground structures within the landscape at operation (indicative zone for converter station siting and indicative Walpole Lincolnshire Connection Substation B (LCS - B).

8.7.11 The receptors/effects detailed in **Table 8-12** have been scoped out from being subject to further assessment because the potential effects are not considered likely to be significant.

Table 8-12 Summary of effects scoped out of the landscape and visual assessment

Receptors/ potential effects	Justification
Effects on the existing landscape elements, perceptual and aesthetic qualities, and LCU's that fall outside the 3 km study area.	The change to the LCU's beyond the 3 km extent of the study area, not affected directly will be limited to perceptual and aesthetic qualities. Therefore, any change would be indirect, limited to views and other perceptual characteristics such as tranquillity and sense of wildness, but at this distance the change will be either screened completely or barely perceptible.

Receptors/ potential effects	Justification
Effects on the existing landscape elements, perceptual and aesthetic qualities, and LCU's within the 3 km study area are not directly affected.	The change to landscape character would be limited to perceptual and aesthetic qualities, such as tranquillity, a sense of wildness, and scenic qualities. As there would be no direct changes to these LCAs, and the changes would be temporary, the effects on the LCU's would not be significant and are therefore scoped out from the assessment.
Visual receptors located beyond the defined study areas.	Visual receptors beyond the 3 km study area, where views toward the construction / operational phases of the English Onshore Scheme are either obscured or at a distance where the magnitude of change experienced would be no higher than negligible. The extent of the study area will be kept under review till the start of work on the ES.
Night time effects on landscape, residential and recreational receptors during construction.	Effects of nighttime lighting during construction have been scoped in but will be assessed at the ES Stage, when the Lighting Strategy becomes available.
Night time effects on residential and recreational receptors during operation.	Scoped out as permanent lighting associated with converter station would be limited to maintenance and repair activities as indicated in Table 8-4 above.

8.8 Key Parameters for Assessment

Realistic worst-case design scenario

- 8.8.1 The assessment has followed the Rochdale Envelope approach as outlined in **Volume 1, Part 1, Chapter 4: Description of the Project** and **Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology**. The assessment of effects has been based on the description of the Project and parameters outlined in **Volume 1, Part 1, Chapter 4: Description of the Project**. However, where there is uncertainty regarding a particular design parameter, the realistic worst-case design parameters for Landscape and Visual amenity are provided below, along with the reasons why these parameters are considered worst-case. The preliminary assessment for Landscape and Visual amenity has been undertaken on this basis. Effects of greater adverse significance are not likely to arise should any other development scenario, based on details within the Rochdale Envelope (such as different infrastructure layout within the draft Order Limits), to that assessed here be taken forward in the final design scheme.
- 8.8.2 In relation to Landscape and Visual Amenity, the following assumptions are made regarding the Project's design parameters in order to ensure a robust worst-case assessment has been undertaken.
- As set out in **Volume 1, Part 1, Chapter 4: Description of the Project**, and specifically in Section 5.4-5.6, at this stage in the design process, the converter station may be sited anywhere within the indicative zone for new converter station, with the final footprint being likely smaller in comparison to the indicative zone for the new converter station. The ZTVs generated for the indicative converter station are based on the maximum height of the converter station (30 m), excluding potential platform height, as shown in **Volume 3, Part 2, Figure 8-6**. Furthermore, other proposed

features within the indicative zone of the converter station would be of considerably lower height.

- It is envisaged that there will be embedded landscape environmental measures (specifically, 'design measures') introduced as part of the detailed design consideration for the converter station. These will be developed at the ES stage, once the final design for the converter station is available.
- Any specific architectural approaches/rationale for the converter station structures will be subject to further design refinement; none have been referenced for the preliminary assessment, which is based on an assumption of maximum height and massing and not the detail of the built form.
- It is envisaged, that the cable could be laid anywhere within the identified indicative zone for underground cable assets.
- The full extent and arrangement of proposed trenchless crossing locations is to be determined. A worst-case assumption has been made for areas where the cable corridor will cross field boundaries or drainage channels, where, unless trenchless crossings are confirmed at this stage, the open-cut installation will take place, resulting in the likely loss of vegetation corresponding to the 'worst case scenario' of working widths associated with the HVDC cable (49 m) and the HVAC cable (84 m). It is envisaged that the inclusion of trenchless crossings will ultimately reduce vegetation loss and any localised alterations to the working width of the construction corridors, minimising such losses where operational and safety considerations allow.
- At this stage, it has been assumed that cable could be laid anywhere within the indicative zone of underground cable assets.
- Regarding the indicative zone for construction compounds, it has been assumed that quantity of compounds, location and footprint may change.
- It has been assumed that reinstatement of vegetation lost to construction along the indicative zone for underground cable assets would be reinstated, with some trees planted further away from the cable corridor due to the operational requirements, while sections of hedgerow crossing the cable corridor would be replanted using shallow-rooted species.

Consideration of construction scenarios

- 8.8.3 As detailed in **Volume 1, Part 1, Chapter 4: Description of the Project**, the timing of construction activities set out within this PEIR is indicative. It has been identified that elements of the Project could be constructed sequentially or concurrently. To allow for any unexpected circumstances and a realistic worst-case assessment, the impact assessment for the English Onshore Scheme considers the 'worst case scenario' of the English Onshore Scheme to be constructed concurrently. This has greater potential for a higher magnitude of change as experienced by visual receptors.

8.9 Assessment Methodology

Overview

- 8.9.1 The project-wide approach to the assessment methodology is set out in **Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology**, and specifically in Sections 5.4 to 5.6. However, whilst this has informed the approach used in this landscape and visual assessment, it is necessary to set out how this methodology has been applied and, where appropriate, adapted to address the specific needs of this assessment. Details are provided below.
- 8.9.2 The methodology for undertaking the landscape and visual assessment is presented in **Volume 2, Part 2, Appendix 8.A: Landscape and Visual Impact Assessment Methodology**, and it is based on the principles outlined in GLVIA3 (Ref 8.1) and its associated Notes and Clarifications (Ref 8.3).
- 8.9.3 The Landscape and Visual Assessment, based on GLVIA3 (Ref 8.1), is the established good practice guidance for landscape and visual assessment. The GLVIA3 emphasises that the assessment should reflect the scale and complexity of the development, focusing on likely significant effects rather than all possible effects.
- 8.9.4 At the PEIR stage, all conclusions and assessments are, by their nature, preliminary as the Project is still evolving with design information being refined and expected to be more detailed at the ES stage.
- 8.9.5 The assessment of landscape and visual effects has been carried out at the construction and operation phase of year 0 (winter) without any mitigation planting, to represent a 'worst-case' scenario, contrasted with year 15 (summer) when the mitigation planting is largely effective and where the foliage provides the greatest level of screening.

Landscape

- 8.9.6 As explained in paragraph 5.1 of GLVIA3 (Ref 8.1) 'An assessment of landscape effects deals with the effects of change and development on landscape as a resource'. Changes may affect the elements that make up the landscape, its aesthetic and perceptual aspects, and its distinctive character.
- 8.9.7 Landscape receptors are the elements or aspects of the landscape that may be affected by a proposed development or change. These can include physical, visual, and experiential components of the landscape.
- 8.9.8 The landscape assessment is based on published Landscape Character Assessments across the study area. The baseline and the assessment for this preliminary LVIA are presented in **Volume 2, Part 2, Appendix 8.B: Landscape Character Baseline and Assessment**.

Visual

- 8.9.9 As explained in paragraph 6.1 of GLVIA3 (Ref 8.1). 'An assessment of visual effects deals with the effects of change and development on views available to people and their visual amenity'. Changes in views can be experienced by individuals at various locations within the study area, including from static positions (typically assessed using representative viewpoints) and while moving through the landscape (commonly referred to as sequential views, such as those experienced from roads and footpaths).

- 8.9.10 Visual receptors are individuals or groups of people who may be affected by changes in views and visual amenity. As noted in paragraphs 6.31-6.32 of GLVIA3 (Ref 8.1), they are usually grouped by occupation or activity (e.g., residents, motorists, recreational users, and tourists visiting a specific location or area).
- 8.9.11 The visual assessment has been carried out with reference to key settlements, recreational receptors and visitor attractions and is presented in **Volume 2, Part 2, Appendix 8.C: Visual Baseline and Assessment**.

Sensitivity

- 8.9.12 As explained in **Volume 2, Part 2, Appendix 8.A: Landscape and Visual Impact Assessment Methodology**, the sensitivity of landscape and visual receptors is determined through consideration of the value attached to the receptors and the susceptibility of the landscape and visual receptors to the change arising from the English Onshore Scheme.
- 8.9.13 Sensitivity is determined through informed professional judgement guided by the indicative criteria set out in Table 8.A-5 (Landscape) and Table 8.A-12 (Visual) of **Volume 2, Part 2, Appendix 8.A: Landscape and Visual Impact Assessment Methodology**. Judgements on sensitivity are recorded as either high, medium, low or negligible.

Magnitude

- 8.9.14 In accordance with paragraph 6.38 of GLVIA3 (Ref 8.1), evaluations of the magnitude of landscape and visual change are informed by balanced consideration of the judgements on size/scale, geographical extent, duration and reversibility of the predicted change.
- 8.9.15 Professional judgements on the magnitude of change are made through consideration of the likely size and scale of the change, which is informed by professional judgement and guided by the indicative criteria set out in detail in **Volume 2, Part 2, Appendix 8.A: Landscape and Visual Impact Assessment Methodology**.

Significance of landscape and visual effects

- 8.9.16 The final step in the assessment requires a combination of the judgements on the sensitivity and the predicted magnitude of change to make an informed professional judgement regarding the significance of the landscape and visual effects. In accordance with paragraph 5.55 of GLVIA3 (0), the evaluations of the individual aspects set out above (susceptibility, value, size and scale, geographical extent, duration and reversibility) are considered together to provide an overall profile of each identified landscape and visual effect guided by the indicative criteria set out in the **Volume 2, Part 2, Appendix 8.A: Landscape and Visual Impact Assessment Methodology**.
- 8.9.17 Professional judgement and experience are applied to balance the many variables that need to be considered and given different weights according to site-specific and location-specific considerations.
- 8.9.18 Levels of landscape effect are identified as major, moderate, minor, or negligible, with the direction of change as beneficial or adverse. Effects judged to be major adverse are considered significant. Moderate adverse effects can be judged significant or not. Effects assessed to be minor or below are considered to be not significant.

Preliminary assessment of cumulative effects

- 8.9.19 At the current stage of the Project (PEIR stage), design information for the English Onshore Scheme is insufficient to allow for a robust cumulative assessment to be undertaken, due to the evolving nature of the design. Furthermore, given the current position relative to baseline data collection, with much of the environmental surveys still to be undertaken in 2026, the baseline identified at this PEIR stage cannot be taken as a complete picture of the potential presence and significance of sensitive receptors. Therefore, a cumulative assessment has not been undertaken at this stage; however, **Volume 1, Part 4, Chapter 27: Cumulative Effects** and **Volume 2, Part 4, Appendix 27.A: Long List of other Developments** present the long and short lists of 'other developments' which will consider inter-project cumulative effects (referred to as 'cumulative effects with other existing and, or approved development') at the ES stage (with updates as necessary), and the methodology which allowed for the identification of these other developments, to allow consultation bodies to form a view and provide comment on the other developments included. The long-list will be reviewed and, if necessary, updated in the lead-up to the production of the ES, as the project design further evolves and in response to any comments raised during statutory consultation.
- 8.9.20 Intra-project cumulative effects (referred to as 'inter-relationships between aspects') result principally from different types of impacts from one development acting in combination on a specific receptor. The Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment (Ref 8.24) refer to Intra-project effects when a single receptor is affected by more than one source of effect arising from different aspects of the Project. An example of an intra-project cumulative effect is when a resident is affected by dust, noise, and traffic disruption during the construction of a scheme, resulting in a greater overall effect than the individual effects alone.
- 8.9.21 The initial findings reported in the specialist chapters have been considered to identify potential interactions between Landscape and Visual Assessment effects upon single receptors. The initial review identified the following other types of environmental impacts that interact with the single identified landscape and visual receptors:
- **Volume 1, Part 2, Chapter 6: Biodiversity;**
 - **Volume 1, Part 2, Chapter 7: Cultural Heritage;** and
 - **Volume 1, Part 2, Chapter 13: Noise and Vibration.**
- 8.9.22 As effects identified in other sections of the PEIR are still under consideration due to the continuous iterative design process, the intra-project cumulative effects will be identified at the ES Stage.

8.10 Preliminary Assessment of Landscape Effects

- 8.10.1 Sections below outline the assessment of landscape effects associated with the undergrounding of HVAC, HVDC cables and the introduction of a converter station. The **Volume 2, Part 2, Appendix 8.B: Landscape Character Baseline and Assessment** presents a more detailed assessment of landscape effects on identified landscape character units.

Effects on Landscape Designations

- 8.10.2 The section below presents a summary of the effects on Lincolnshire Wolds National Landscape. A more detailed assessment of the effects is presented in **Volume 2, Part 2, Appendix 8.B: Landscape Character Baseline and Assessment**.

Lincolnshire Wolds National Landscape

- 8.10.3 The sensitivity of the Lincolnshire Wolds has been recognised through its designation as a National Landscape, with the main purpose of "*conserving and protecting natural beauty*" and therefore assessed of high sensitivity.
- 8.10.4 As the main construction works will be located in excess of 5 km from the boundary of Lincolnshire Wolds National Landscape, the effects will be indirect and restricted to changes in the views, perceptual and aesthetic qualities, such as tranquillity and sense of wildness. The views associated with the construction of the converter station would be restricted to very small areas within the Lincolnshire Wolds National Landscape, resulting in a **major** adverse (**significant**) effect on small, restricted areas of designated landscape, leaving the vast remainder of the National Landscape unaffected.
- 8.10.5 At year 0, there will be very few signs of development above ground within the cable corridor, except for marker posts. The land will be returned to its pre-development use, focused on farming, while crops may not be fully restored. The converter station would become an uncharacteristic addition to the local landscape in year 0, with mitigation planting offering minimal screening upon commencement of operation. The magnitude of change associated with the introduction of a converter station would be limited to changes in scenic and perceptual qualities. The effects would be **moderate** adverse (**not significant**) as the change would affect very small areas, where views are available, within the Lincolnshire Wolds National Landscape.
- 8.10.6 At year 15, mitigation planting would help to screen the converter station, the effects would however remain **minor** adverse (**not significant**).

Setting of Lincolnshire Wolds National Landscape

- 8.10.7 Although the extent of the Lincolnshire Wolds National Landscape is not defined, for the purpose of the assessment, it has been assumed that it covers an adjacent area to the perimeter of Lincolnshire Wolds National Landscape.
- 8.10.8 The boundary of draft Order Limits is located approximately 630 m from the Lincolnshire Wolds National Landscape, with a construction access route to the main area of works and construction compounds being located at the closest distance. As the Project is orientated in the east-west direction, the change to the setting would be localised and associated primarily with the works at the Landfall, within an indicative zone for underground cable assets and at the Converter Station. The effects would be **moderate** adverse (**significant**).
- 8.10.9 At year 0, agricultural land use would be restored alongside field boundary vegetation along an indicative zone for underground cable assets. Whilst the landscape around the converter station would be transformed, with field boundaries being altered and enhanced, the converter station would become a permanently introduced feature. Whilst mitigation planting would not provide a screening effect, the converter station would benefit from the screening of existing field boundary vegetation, located further away. The effects would be **moderate** adverse (**not significant**).

8.10.10 At year 15, the field pattern and agricultural land use would be largely restored, although the introduced converter station would remain however largely integrated within the existing landscape. The effects would be **minor** adverse (**not significant**).

Effects on Landscape Character

8.10.11 The preliminary Landscape Character Assessment has been undertaken based on the landscape character of the draft Order Limits and the LCU's identified within published Landscape Character Assessments. LCU's that have the potential to be significantly affected are also detailed in Section 8.1 of this chapter. The section below includes preliminary assessments of landscape effects presented with reference to the following components of the English Onshore Scheme:

- Anderby Creek Landfall;
- HVDC and HVAC underground cables; and
- Converter Station.

8.10.12 These elements of the English Onshore Scheme have different characteristics and will affect landscape elements, landscape character, and associated perceptual qualities in different ways. Therefore, the potential effects are summarised below based on a more detailed assessment with the reference to LCU's in **Volume 2, Part 2, Appendix 8.B: Landscape Character Baseline and Assessment**.

Anderby Creek Landfall

Construction

8.10.13 Construction of the landfall would lead to the localised disturbance caused by construction activities. Construction would be carried out using trenchless solutions; however, some landform profiling would likely be required to provide a gradual slope from agricultural land, where Transition Joint Bays (TJBs) connecting onshore and offshore cable elements would be installed, across to the North Sea beach. Two large construction compounds would be required at the Landfall to accommodate construction machinery, material set-down areas, and welfare facilities. This would result in local land-use and landscape changes through the introduction of uncharacteristic construction features.

8.10.14 The indicative zone for construction compounds alongside construction areas would be fenced off, with construction traffic utilising a temporary access track off the existing road network. Vegetation around field parcels is very limited, consisting of occasional shrubs and riparian vegetation along the existing drainage channels. Due to the relatively large size of the land parcels, most vegetation would likely be retained, with only localised loss as diversion of drains or provision of temporary crossings would be likely required.

8.10.15 Construction may require temporary closure or diversion of King Charles III England Coast Path National Trail alongside PRoW such as Hutt/9/1, Hutt/10/5, Hutt/10/4. The presence of uncharacteristic features and activities would affect the tranquillity alongside views, noise, and memories of residents through a change to a relatively unspoilt coastline near the quiet village of Anderby Creek.

8.10.16 Overall, **major** adverse (**significant**) effects have been identified for the Donna Nook to Gibraltar Point Naturalistic Coast LCA, Holton le Clay to Great Steeping Middle Marsh LCA and Lincolnshire Coast Marshes NCA, whilst **moderate** adverse (**significant**) effects were identified for the Tetney Lock to Skegness Coastal Outmarsh LCA.

Year 0

8.10.17 Upon completion at year 0, the change to the landscape character would be minimal, as public access along the PRoW and shoreline would be restored. However, the change would be perceptible through the minor landform alteration and the establishment of mitigation planting. The TJB would be buried underground, with an access manhole present at the ground level marking the cable connection point. Although vegetation may not be fully established above it in the first year, other minimal above-ground installations, such as manholes and marker posts, would be the only signs of work remaining above ground. It is expected that riparian vegetation would be planted alongside restored native shrubs along the drains. Although vegetation would not be fully established, agricultural land use would be largely restored. None of the assessed LCU's will be affected significantly.

Year 15

8.10.18 Mitigation and enhancement planting would largely restore the baseline scenario by year 15. The landfall connection would be covered with sand, and further inland, with habitats sympathetic to coastal areas. The landfall would be perceptible only through the inspection chamber over the TJB connection, the presence of marker posts and barely perceptible landform alteration. Agricultural land use in the western part of the Anderby Creek Landfall would be fully restored. None of the assessed LCU's will be affected significantly.

Undergrounding of HVDC and HVAC cables

Construction

8.10.19 The indicative HVDC cable route would pass through three LCA's as identified within East Lindsey Landscape Character Assessment (0). A much shorter HVAC cable route, approximately 3 km, will pass through Holten Le Clay to Great Steeping Middle Marsh LCA. Construction of both HVDC and HVAC underground cables would comprise trench excavation and temporary storage of topsoil and subsoil in storage bunds, resulting in similar changes within affected LCAs, except for trenchless crossings, which are likely to be used in several locations. Access to the indicative underground cable assets corridor would be via temporary haul roads and existing access tracks. In some places, there may be a requirement for temporary bridges/culvert crossings to allow temporary haul-road crossings of smaller ditches and drains.

8.10.20 Some loss of vegetation would occur at trenched crossings, and the extent of vegetation loss would vary. As many field boundaries comprise drains with grassed banks and some riparian vegetation, the loss of vegetation would be small-scale, with more notable loss around the proposed converter station, but still small within the scale of the considered LCA's. As the presence of hedgerows as field boundaries and woodlands is generally limited, changes in land use and landscape patterns would be perceptible through changes in tranquillity, views of construction activity, the movement of construction vehicles, and the introduction of uncharacteristic features associated with construction. Large-scale construction associated with underground cabling would be uncharacteristic of the rural, generally quiet and tranquil landscapes. The geographical extent of change would vary, within assessed LCU's. Overall, **major** adverse (**significant**) effects have been identified for the Donna Nook to Gibraltar Point Naturalistic Coast LCA, Holton le Clay to Great Steeping Middle Marsh LCA and Lincolnshire Coast Marshes NCA, whilst **moderate** adverse (**significant**) effects were identified for the Tetney Lock to Skegness Coastal Outmarsh LCA.

Year 0

8.10.21 The agricultural soil profile within the indicative cable route would be fully restored by year one, although crops may not be fully restored at year 0. The change in landscape would be perceptible mainly through gaps in vegetation; however, as field boundary vegetation is limited, the land use would be largely restored, therefore the effects would reduce to not significant although the introduced converter station would result in a notable change within the local landscape. None of the assessed LCU's will be affected significantly.

Year 15

8.10.22 All crops and hedgerows would be fully restored by the year 15, with most of the field boundary vegetation fully restored, except for any replacement trees or those planted as part of embedded mitigation or additional mitigation measures. The converter station would be largely integrated within the existing landscape.

8.10.23 None of the assessed LCU's will be affected significantly.

8.10.24 **Table 8-13** below presents a summary of identified landscape effects.

Table 8-13 Preliminary summary of landscape effects

Landscape Character Units	Significance of landscape effects		
	at construction	at operation (Year 0, Winter)	at operation (Year 15, Summer)
Lincolnshire Wolds National Landscape	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Setting of the Lincolnshire Wolds National Landscape	Moderate adverse (significant)	Moderate adverse (not significant)	Minor adverse (not significant)
Lincolnshire Coast Marshes NCA	Major adverse (significant)	Moderate adverse (not significant)	Minor adverse (not significant)
Lincolnshire Wolds NCA	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Donna Nook to Gibraltar Point Naturalistic Coast LCA	Major adverse (significant)	Negligible adverse (not significant)	Negligible adverse (not significant)
Tetney Lock to Skegness Coastal Outmarsh LCA	Moderate adverse (significant)	Minor adverse (not significant)	Minor adverse (not significant)
Holton le Clay to Great Steeping Middle Marsh LCA	Major adverse (significant)	Moderate adverse (not significant)	Minor adverse (not significant)

8.11 Preliminary Assessment of Visual Effects

- 8.11.1 The preliminary Visual Assessment has been undertaken based on the visual baseline of the draft Order Limits. The visual receptors that have the potential to be significantly affected are also detailed in Section 8.1 of this chapter.

Effects on Visual Receptors

- 8.11.2 The section below includes preliminary assessments of visual effects presented with reference to the residential and recreational receptors.

Residential Receptors

Construction

- 8.11.3 Construction activity would alter the landscape pattern by introducing uncharacteristic urban features into a largely rural landscape. Where views of construction activity are available from settlements, these are largely restricted to a relatively small proportion of properties located along the settlement edge closest to the corridor; for example, at Sutton-on-Sea, Huttoft, Beesby and Anderby Creek. The views are further screened by shelterbelts around settlements and, to a lesser degree, by intervening field boundary vegetation, which more frequently provides screening in the middle distance and background of the views. Agricultural outbuildings also contribute to a screening of the views. Views from properties within the centre of settlements will be screened by intervening built form. In the case of most settlements, views of construction activity will be screened for the majority of residential receptors by a combination of existing vegetation and built form, as views would be typically restricted to a small proportion of the settlement.
- 8.11.4 Views of the upper sections of construction activity associated with the converter station, and the temporary presence of cranes, will be available from several settlements within the study area, including Maltby le Marsh, Saleby, Asserby, Thorethorpe and Ailby, with the change visible above existing belts of intervening vegetation. Views of construction activity associated with the converter station at ground level, however, will be largely screened by existing vegetation and intervening built form.
- 8.11.5 Construction within the landfall will be screened for the majority of receptors within the study area. Due to the close proximity of the settlement to the draft Order Limits, receptors within the settlement of Anderby Creek, and a limited number of receptors along the southern edge of Sutton-on-Sea, will have views of construction activity associated with the landfall and the cable corridor, including views of the construction compound. These views will be visible from a small proportion of receptors within each settlement.
- 8.11.6 Construction traffic along construction access routes would be visible in several locations, including Ailby, Bilsby and Alford. In many locations, views of construction traffic will be screened by intervening vegetation, such as along existing field boundaries and locally by woodland blocks.
- 8.11.7 Significant adverse effects on views and visual amenity for residential receptors would be mostly perceptible to visual receptors located close to the draft Order Limits, such as Bilsby, Alford, Asserby, Anderby Creek and Saleby.

Operation (year 0, winter)

- 8.11.8 At operation year 0, the geographical extent and scale of change in the views would reduce for most receptors affected. Upon completion, the most visible aspect of the proposed scheme would be the converter station, as the cable corridor would be largely restored to agricultural use. The converter station would be primarily visible from the settlements located closest to the draft Order Limits. In many locations, including visual receptors at Mumby, Sutton-on-Sea, Hannah, Markby, Ailby, Huttoft, Alford, Anderby Creek, Rigsby, Farlesthorpe, Cumberworth, and Althorpe Row, filtered views of the upper sections of the converter station would be available.

At operation year 0, potential mitigation planting will not have established and therefore is unlikely to provide full landscape integration for the Landfall and within cable corridor, with a low degree of change still experienced by visual receptors at Anderby Creek. Equally, mitigation planting will not yet provide full screening of the converter station; as there will still be a change in views for receptors towards the edges of settlements and where gaps in existing vegetation permit views towards the converter station.

Operation (year 15, summer)

- 8.11.9 The landscape pattern would be largely restored alongside vegetation, providing a considerable degree of screening and visual integration to the converter station. The converter station would remain a notable alteration in certain views from settlements such as Asserby, Markby and Bilsby, but would be largely integrated into the existing landscape. The proposed mitigation would increase screening of views of the upper parts of the converter station, with the change reducing for receptors in many locations including Anderby Creek, Mumby, Thoresthorpe and Markby. The scale of change would reduce alongside the geographical extent of change in the views for most of visual receptors.

Recreational Receptors

Construction

- 8.11.10 Construction activity would affect a large number of recreational receptors within the study area, introducing uncharacteristic features and intruding on tranquillity in what is primarily an open and scenic rural landscape with few detracting features. Construction activity within the corridor would be highly visible in particular from recreational receptors in locations close to the coastline, including recreational receptors using the King Charles III England Coast Path National Trail, and receptors within the Lincolnshire Coastal Park, will experience views of construction activity associated with the landfall, including views of the construction compound, and views of construction activity relating to the middle to upper parts of the converter station, between Sutton-on-Sea and Anderby Creek, where the landscape is primarily one of large agricultural fields with little intervening vegetation. Many PRoW within 1 km of the draft Order Limits would experience views of construction activity associated with the cable corridor, particularly around Asserby, Huttoft, south of Sutton-on-Sea and to the north and west of Anderby Creek, filtered by field boundary vegetation and occasionally by built form in nearby settlements. Views of the converter station from locations closer to the coast would be either fully screened or there would be distant views of the construction of the upper sections of the converter station, but more frequently, the views would be restricted to the temporary presence of a crane.

- 8.11.11 For recreational receptors located further inland views are more enclosed due to the rising landform, and an increase in woodland cover further acts to help screen views towards the draft Order Limits. Recreational receptors in these locations are still likely to experience filtered views of construction activity within the cable corridor. The views of construction activity within the cable corridor involving the use of cranes would be available above the top of existing intervening vegetation. Views of the construction activities associated with the middle and upper parts of the converter station would be available to recreational receptors along PRoW in the vicinity of Rigsby, south and east of Ailby, around Thoresthorpe, around Alford, Bilsby, north of Huttoft, south of Sutton-on-Sea and west of Anderby Creek, at Well Hall Grade II Registered Park and Garden and Alford Manor House Grade II* Listed Building.
- 8.11.12 The presence of construction vehicles travelling along the construction access route (in particular close to the A1104, A52, Sea Road, and the B1449/Long Lane) will affect the tranquillity of the visitors to recreational receptors and users of PRoW close to these roads.

Operation (year 0, winter)

- 8.11.13 Overall, the geographical extent and scale of change in the views would reduce for most receptors affected. In operation, features within the corridor and landfall would be buried underground, with the land returned to its original condition, with little perceptible change due to the lack of permanent above-ground features.
- 8.11.14 With the exception of a small number of PRoW in the vicinity of Bilsby (where the scale of change would remain high due to the close proximity of the converter station), views of the converter station would either be fully screened, or views of the upper parts only available from PRoW around Rigsby, Thoresthorpe, Alford, Bilsby, Huttoft, south and east of Ailby, north of Farlesthorpe, north of Beesby, north of Hannah and west of Anderby, with recreational receptors at Alford Manor House experiencing no views of the converter station. Distant views of the upper sections of the converter station would be visible to approximately half of the users of PRoW within 2-3 km of the corridor, and the change would be substantial from PRoW near the converter station, including PRoW east and southeast of Bilsby, east of Thurlby, and close to Asserby. Mitigation planting would not provide effective screening, however, overall, the magnitude of change would be reduced from that of construction stage.

Operation (year 15, summer)

- 8.11.15 In year 15 the geographical extent and scale of change in the views would be further reduced for recreational receptors. Areas of reinstated land within the corridor would be fully established, and mitigation planting would provide considerable screening to the converter station. However, views of the upper sections of the converter station would be available from PRoW, particularly near Rigsby, Thoresthorpe, Alford, Bilsby, Huttoft, south and east of Ailby, north of Farlesthorpe, north of Beesby, north of Hannah and west of Anderby.
- 8.11.16 **Table 8-14** and **Table 8-15** below presents a summary of identified visual effects.

Table 8-14 Preliminary summary of visual effects (residential receptors)

Visual receptors	Significance of visual effects		
	at construction	at operation (Year 0, Winter)	at operation (Year 15, Summer)
Residents of Maltby le Marsh	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Residents of Sutton-on-Sea	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Residents of Beesby	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Residents of Hagnaby	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Residents of Hannah	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Residents of Markby	Major adverse (significant)	Moderate adverse (not significant)	Moderate adverse (not significant)
Residents of Saleby	Major adverse (significant)	Major adverse (significant)	Moderate adverse (not significant)
Residents of Asserby	Major adverse (significant)	Moderate adverse (significant)	Moderate adverse (not significant)
Residents of Thorethorpe	Major adverse (significant)	Major adverse (significant)	Major adverse (significant)
Residents of Ailby	Moderate adverse (significant)	Minor adverse (not significant)	Minor adverse (not significant)
Residents of Bilsby	Major adverse (significant)	Major adverse (significant)	Major adverse (significant)
Residents of Huttoft	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Residents of Alford	Major adverse (significant)	Moderate adverse (significant)	Minor adverse (not significant)
Residents of Anderby Creek	Major adverse (significant)	Minor adverse (not significant)	Minor adverse (not significant)
Residents of Anderby	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Residents of Rigsby	Major adverse (significant)	Minor adverse (not significant)	Minor adverse (not significant)

Visual receptors	Significance of visual effects		
	at construction	at operation (Year 0, Winter)	at operation (Year 15, Summer)
Residents of Farlesthorne	Moderate adverse (significant)	Minor adverse (not significant)	Minor adverse (not significant)
Residents of Mumby	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Residents of Cumberworth	Moderate adverse (significant)	Minor adverse (not significant)	Minor adverse (not significant)
Residents of Authorpe Row	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)

Table 8-15 Preliminary summary of visual effects (recreational receptors)

Visual receptors	Significance of visual effects		
	at construction	at operation (Year 0, Winter)	at operation (Year 15, Summer)
King Charles III England Coast Path North East National Trail (NT)	Major adverse (significant)	Moderate adverse (not significant)	Minor adverse (not significant)
Lindsay Loop Long Distance Walking Association trail	Major adverse (significant)	Moderate adverse (not significant)	Minor adverse (not significant)
Lincolnshire Coastal Country Park	Major adverse (significant)	Moderate adverse (not significant)	Minor adverse (not significant)
Visitors to Alford Manor House, Grade II* Listed Building	Major adverse (significant)	Minor adverse (not significant)	Minor adverse (not significant)
Visitors to Alford Windmill Grade I Listed Building	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Visitors to Well Hall Grade II Registered Park and Gardens	Moderate adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
Users of PRow (0-1 km)	Major adverse (significant)	Moderate adverse (significant)	Moderate adverse (significant)
Users of PRow (1-2 km)	Major adverse (significant)	Moderate adverse (significant)	Moderate adverse (not significant)
Users of PRow (2-3 km)	Moderate adverse (significant)	Moderate adverse (not significant)	Minor adverse (not significant)

8.12 Further Work to be Undertaken

8.12.1 The information provided in this PEIR is preliminary; the final assessment of potential significant effects will be reported in the ES. This section describes the further work to be undertaken to support the Landscape and Visual assessment presented in the ES.

Baseline

8.12.2 A field survey is ongoing and will inform the assessment provided in the ES. In addition, discussions with technical stakeholders, including those related to methodology, viewpoint identification, and visualisation requirements, will further inform the assessment baseline.

Assessment

8.12.3 The preliminary Landscape and Visual assessments undertaken for the PEIR will be updated following stakeholder consultation feedback and in response to further design refinement. The following assessments will then either be updated or undertaken where they have not been undertaken for this PEIR:

- The assessment of landscape and visual effects will be reviewed in the context of amended design information, available at the ES stage, including any information on design embedded and good practice measures;
- The update to the assessment would likely require further field survey work, including summer viewpoint photography, photomontages, and provision of further assessment detail;
- Night-time visual effects (during construction) will be assessed for the sensitive receptors identified as those potentially affected;
- Cumulative Assessment of Landscape and Visual Effects will be included at the ES Stage;
- Intra-project cumulative Landscape and Visual effects (Intra-project cumulative effects will be assessed at the ES stage); and
- In addition, an input will be provided to a Statement of Common Ground (SoCG).

Further environmental measures

8.12.4 Further consultation with relevant statutory consultees will be undertaken to define the scope and extent of the environmental measures set out in the assessment. The proposed environmental design measures will be reviewed following stakeholder consultation feedback, through ongoing design refinement informed by assessment work. The ES will also detail any additional mitigation measures identified.

- 8.12.5 As described in the preliminary assessment, there is a potential for significant adverse landscape and visual effects due to impacts associated with the converter station. The siting and design of the converter station are subject to development and ongoing collaborative effort by Architects informed by a range of environmental and engineering specialists. Therefore, the work at the ES stage will continue to focus on the finer level of embedded mitigation, including planting. The approach to mitigation along the cable corridor will predominantly be reinstatement, although landscape and ecological enhancements are likely to be introduced where they don't conflict with operational requirements, land ownership rights, or future land uses.
- 8.12.6 Environmental measures will be proposed as part of the development of an integrated environmental measures strategy, with inputs from ecological and arboricultural surveys. They will be adopted as an embedded part of the English Onshore Scheme and, therefore, will be factored into the assessment presented in the ES.

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