

**Tillbridge Solar Project
EN010142**

**Volume 6
Environmental Statement**
Chapter 12: Landscape and Visual Amenity
Document Reference: EN010142/APP/6.1

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

~~April~~ December 2024
Revision Number: 001

tillbridgesolar.com

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12. Landscape and Visual Amenity

12.1 Introduction

12.1.1 This chapter presents the findings of an assessment of the likely significant effects on landscape and visual receptors as a result of the Tillbridge Solar Project (hereafter referred to as 'the Scheme'). For more details about the Scheme, refer to **Chapter 3: Scheme Description** of this Environmental Statement (ES) [EN010142/APP/6.1].

12.1.2 At Deadline 3, this chapter has been updated in response to comments received within Lincolnshire County Council's Local Impact Report [REP1A-001] and the Examining Authority's First Written Questions. The document references have not been updated from the original submission. For the most up-to-date documents, the reader should access these through the Guide to the Application [EN010142/APP/1.2 (Rev05)] and Schedule 13 of the Draft DCO [EN010142/APP/3.1(Rev04)].

~~12.1.2~~ 12.1.3 Landscape effects relate to changes to the landscape as a resource, including physical changes to the fabric or individual elements of the landscape, its aesthetic or perceptual qualities and landscape character. Visual effects relate to changes in existing views of identified visual receptors (people), from the loss or addition of features within their view. Although effects on the landscape and visual environment are interrelated, they are assessed and reported separately in this chapter.

~~12.1.3~~ 12.1.4 The focus of this chapter is the identification of 'significant' effects of the Scheme on landscape and visual receptors through a landscape and visual impact assessment (LVIA). Significant effects are those assessed as major or moderate (adverse or beneficial), based on the methodology provided in **Appendix 12-2 [EN010142/APP/6.2]** and **Chapter 5: EIA Methodology** of this ES [EN010142/APP/6.1] and summarised in **Section 12.4**. The LVIA is based on information available at the time of preparation, including the Scheme design as illustrated on **Figure 3-1: Indicative Principal Site Layout Plan [EN010142/APP/6.3]**; parameters outlined in **Chapter 3: Scheme Description** of this ES [EN010142/APP/6.1]; and site surveys. It also includes a baseline review of desktop information such as planning policy and supporting evidence documents.

~~12.1.4~~ 12.1.5 The assessment reflects a progression from the Preliminary Environmental Impact (PEI) Report and accompanying reporting produced previously in relation to the Scheme. It draws on information obtained since preparation of the PEI Report including feedback from stakeholders and consultees; further site surveys and baseline information gathering (including from Neighbourhood Plans); liaison with other disciplines; and subsequent design development.

~~12.1.5~~ 12.1.6 The LVIA includes a summary of the design process for the Scheme, including the initial surveys prior to the PEI Report stage that shaped the extent and layout of the Scheme. Preparation of the LVIA and design development has been a continuous, iterative process of design

development drawing on the information noted above, as well as further meetings with property owners, landowners and tenants close to the Principal Site boundary. It also details key locations for proposed embedded mitigation that is intended to address potential impacts identified through site surveys and assessment, as well as opportunities for enhancement.

~~12.1.6~~**12.1.7** The LVIA has been undertaken by a Chartered Landscape Architect with experience in LVIA for large-scale infrastructure developments.

~~12.1.7~~**12.1.8** The LVIA has also been undertaken with reference to Chapter 8: Cultural Heritage and **Chapter 9: Ecology and Nature Conservation** of this ES [**EN010142/APP/6.1**], as well as **Appendix 12-7: Arboriculture Impact Assessment** and **Appendix 17-2: Glint and Glare Assessment** of this ES [**EN010142/APP/6.2**], which should be read in combination with this chapter. The selection of representative viewpoints has been undertaken with input from the Cultural Heritage specialists.

~~12.1.8~~**12.1.9** This chapter is supported by the following technical appendices **to the Environmental Statement [EN010142/APP/6.2]**:

- a. **Appendix 12-1:** LVIA Policy and Legislation;
- b. **Appendix 12-2:** LVIA Methodology;
- c. **Appendix 12-3:** LVIA Landscape Baseline;
- d. **Appendix 12-4:** LVIA Representative Viewpoint Descriptions;
- e. **Appendix 12-5:** LVIA Assessment of Landscape Effects;
- f. **Appendix 12-6:** LVIA Assessment of Visual Effects; and.
- g. **Appendix 12-7:** Arboriculture Impact Assessment.

~~12.1.9~~**12.1.10** The following figures accompany this chapter [**EN010142/APP/6.3**]:

- a. **Figure 12-1:** Initial Site Appraisal Plan;
- b. **Figure 12-2:** Example Site Constraints/Opportunities Plan;
- c. **Figure 12-3:** LVIA Study Area;
- d. **Figures 12-4a to 12-4h:** Zones of Theoretical Visibility;
- e. **Figure 12-5:** Topography and Watercourses;
- f. **Figure 12-6:** Designations with Relevance to LVIA;
- g. **Figure 12-7:** Public Rights of Way and Other Access;
- h. **Figure 12-8:** National Landscape Character Areas;
- i. **Figure 12-9:** Regional Landscape Character Areas;
- j. **Figure 12-10:** County and District Landscape Character Areas;
- k. **Figure 12-11:** Local Landscape Character Areas;
- l. **Figure 12-12:** Viewpoint Locations;
- m. **Figure 12-13:** Representative Viewpoint Photographs; and
- n. **Figure 12-14:** Visualisations.

12.2 Legislation and Planning Policy

- 12.2.1 A summary of legislation, planning policy, and guidance relating to landscape and visual amenity is provided in **Appendix 12-1** of this ES [EN010142/APP/6.2].

12.3 Assessment Assumptions and Limitations

- 12.3.1 This chapter is based on information available at the time of preparation. The LVIA is based on **Figure 3-1: Indicative Principal Site Layout Plan** of this ES [EN010142/APP/6.3] and the assumptions and descriptions as per the worst-case parameters in **Chapter 3: Scheme Description** of this ES [EN010142/APP/6.1] and the **Outline Design Principles Statement** [EN010142/APP/7.4].
- 12.3.2 As discussed in **Chapter 3: Scheme Description** of this ES [EN010142/APP/6.1], detailed design has yet to be finalised for the Scheme. Some elements of Scheme may be subject to change in order to allow some flexibility within the design and changes in technology when the Scheme is constructed. The 'Rochdale Envelope' approach has therefore been applied within the LVIA to ensure a robust assessment of the likely significant environmental effects of the Scheme on landscape and visual receptors. The maximum (and, where relevant, minimum) parameters for the design elements of the Scheme have been assessed, providing for a reasonable worst-case scenario in terms of potential effects. This flexibility extends to elements including but not limited to the layout of the solar PV panels, Solar Stations; Battery Energy Storage Systems (BESS) and On-site Substations; the precise route of the onsite cables and cable within the Cable Route Corridor; the detailed layout and type of mitigation such as planting and seeding; and precise locations where vegetation may require removal. All such examples are considered within the parameters of this worst-case scenario.
- 12.3.3 The LVIA draws upon surveys and photography undertaken between May 2022 and November 2023. These allowed observations through different seasons and conditions, both across the area initially identified for potential solar development and later focused on areas within the Order limits, including the Principal Site and Cable Route Corridor and their respective Study Areas. The Order limits and Study Areas are shown on **Figure 3-3: LVIA Study Area** of this ES [EN010142/APP/6.3] and the methodology for the establishment of the latter is described in **Section 12.4** of this ES [EN010142/APP/6.1].
- 12.3.4 Fieldwork outside the Principal Site and along the Cable Route Corridor has been undertaken from publicly accessible locations. In addition, accompanied visits to several residential properties close to the Principal Site were also undertaken.
- 12.3.5 Professional judgement has been used to assess residents' views where it has not been possible to ascertain levels of visibility from gardens and inside properties through accompanied visits. Such judgements have been aided by aerial photography and fieldwork observations from the surrounding area.

- 12.3.6 For the construction phase assessment (peak anticipated in 2026), construction activity is assumed to be undertaken simultaneously across the Order limits and during winter, such that existing deciduous vegetation is not in leaf, thereby representing a worst-case scenario in terms of potential impacts.
- 12.3.7 Key elements relevant to the LVIA for the construction phase of the Principal Site include:
- a. The perimeter fence around the Principal Site will be implemented early in the construction phase and will consist of permanent deer-proof fencing with timber poles. Temporary fencing or solid hoardings will be provided around retained vegetation and as specific tree protection measures.
 - b. Compound areas (the locations of which are provisionally identified on **Figure 3-8** of this ES [EN010142/APP/6.3]) will include offices, welfare facilities, canteens, storage and waste skips, parking areas, fencing and sufficient space to allow the storage, download and turning areas of vehicles. Mobile cranes will be required to implement the compounds, i.e. lifting and placing of offices etc.
 - c. Ground preparation of will consist of localised topsoil stripping, levelling and storage, construction of foundations for structures and trenching for wiring. This will be undertaken by standard construction equipment and followed by the construction of the solar PV panels and infrastructure.
 - d. The landscape design and all new planting (as elements within the wider site green infrastructure) will be implemented in line with the **Framework Landscape and Ecological Management Plan (LEMP)** [EN010142/APP/7.17] as illustrated on **Figure 3-1** of this ES [EN010142/APP/6.3].
- 12.3.8 Excavation for the open cut trench sections of the Cable Route Corridor is anticipated to be within an area of approximately 40m wide, reducing to 10m around vegetation. Where required due to environmental constraints and/or design requirements (e.g. at intersections with watercourses and the railways) trenchless methods of construction will be undertaken, requiring rigs and associated equipment to install the cable beneath these features. In addition, outdoor termination structures and equipment modification work will be required where the cable terminates within the existing 400kV National Grid Cottam Substation.
- 12.3.9 The construction phase will be undertaken in accordance with a **Framework Construction Environmental Management Plan (CEMP)**, [EN010142/APP/7.8]. The **Framework CEMP** will set out the best construction practice measures, including to protect retained vegetation, minimise noise and dust and ensure compounds and stockpiles are kept in a tidy manner.
- 12.3.10 For the year 1 operation assessment (2028), the LVIA assumes that the Scheme will be operational across all of the Order limits, the season is winter and deciduous vegetation will not be in leaf. This therefore reflects a worst-case assessment scenario. Grassland will not have fully established at year 1 and proposed new native hedgerows and trees will be immature.

- 12.3.11 For the year 15 operation (2043), the LVIA assumes that the Scheme is operational across all of the Order limits, the season is summer and vegetation and proposed planting is in leaf. All new planting will have established as a result of the implementation of the **Framework LEMP [EN010142/APP/7.17]**, such that there will be grassland swards beneath the Solar PV Panels and habitat enhancement within the ecological mitigation areas. The tree planting will be between around 4m and 6.5m in height and new and existing hedgerows will be managed and maintained between around 2m and 3m in height.
- 12.3.12 For the decommissioning (2088) phase, within the Principal Site, the LVIA assumes that the Scheme is no longer operational. Within the Principal Site, the solar PV panels and associated infrastructure will be removed in a manner similar to the construction phase, requiring machinery and localised excavation. The proposed planting and habitat enhancement (as illustrated on **Figure 3-1** of this ES **[EN010142/APP/6.3]**) will remain, although some targeted vegetation loss may be required, for example to accommodate vehicle movements or road widening. The former Solar PV Panel areas will be grass seeded where they are bare of vegetation or converted to arable agriculture. The assessment for the decommissioning is undertaken for the winter season with the duration of this phase being between 12 and 24 months.
- 12.3.13 For the decommissioning (2088) of the Cable Route Corridor, the LVIA assumes that the cable will remain in place.

12.4 Assessment Methodology

Initial Site Analysis, Design and Review: Principal Site

- 12.4.1 A preliminary site visit and baseline review was undertaken prior to the preparation of the PEI Report during July 2022 to establish the broad landscape and visual characteristics of an area initially identified for potential solar development and mitigation (the Principal Site). At this stage, this area extended south from the A631 towards Fillingham and Ingham; west to Springthorpe and Heapham; and east to Lincoln Cliff. A high-level site appraisal plan, identifying potential landscape and visual risk factors, was prepared following this exercise, an example of which is provided in **Figure 12-1** of this ES **[EN010142/APP/6.3]**.
- 12.4.2 An iterative design process was driven by this initial site appraisal plan, alongside further site surveys, a review of documents such as Neighbourhood Plan Character Assessments and meetings with residents. This informed further revisions to the Principal Site boundary. Additional site constraints and opportunities were collated and illustrated on later versions of the plan, an example of which is provided in the Example Site Constraints/Opportunities Plan (**Figure 12-2** of this ES **[EN010142/APP/6.3]**).
- 12.4.3 Through this process, the boundary to the Principal Site was refined, in order to limit the risk of significant landscape and visual effects on receptors

identified during the site appraisal stages. This also took into account high-level sensitivities associated with heritage assets, along with constraints on construction access routes, flood risk and other extant planning applications.

- 12.4.4 As the boundary to the Principal Site became established, preferred locations for infrastructure were identified, including on-site substations, storage compounds, access routes and office locations. These were sited to take advantage of existing screening by vegetation and limit impacts on sensitive receptors such as residential properties.
- 12.4.5 Initial areas of high-level mitigation were then identified. These included buffers and woodland screening around residential properties; the setting-back of infrastructure from sensitive landscapes such as Lincoln Cliff; and areas of ecological mitigation to provide a gap between the Scheme and the proposed Cottam Solar Project to the south.
- 12.4.6 Once these mitigation and enhancement areas were identified, Sensitive Archaeology Sites (SAS) excluded and easements provided to utilities including gas pipes, buffers were established as follows:
- a. 5m from hedgerows, based on the extent of the canopy drip line indicated on the topographic survey;
 - b. 15m from all trees above 4m height, based on based on the extent of the canopy drip line and heights indicated on the topographic survey;
 - c. 10m from all ponds, with the exception of a 50m buffer around from the pond north of Grange Cottages (Springthorpe) due to the presence of protected species;
 - d. 10m from the top of the bank to all watercourses, including drains.
- 12.4.7 The proposed solar panels and associated infrastructure (including the Solar Stations/BESS) were set out across the developable areas of the Principal Site, alongside indicative locations of access tracks and temporary compounds. The resulting indicative Principal Site layout formed the basis for the Environmental Impact Assessment (EIA) assessment.

Establishing the Study Area

- 12.4.8 Concurrent with the initial site analysis described above, Zones of Theoretical Visibility (ZTV) were produced in order to better define the LVIA Study Area. ZTVs, produced using Geographic Information System (GIS) software, provide an indication of potential visibility of the proposed solar infrastructure and the location of receptors (people with views) likely to be affected. They also assist in the identification of potential representative viewpoints to form the basis of the assessment.
- 12.4.9 At the EIA scoping stage, ZTVs were produced to display theoretical visibility up to 3km from the outer boundary of the Principal Site, based on initial site observations of likely visibility. This 3km distance was used as the basis for defining the Study Area for the Principal Site at the EIA scoping stage.
- 12.4.10 The preliminary ZTVs produced at the EIA scoping stage were based on a maximum height of panels of 3.5m and the extent of indicative panel areas identified at that time. Elements including on-site substations, Solar Stations

and the control building were not modelled as part of the ZTV, as the locations had not yet been defined.

- 12.4.11 Further ZTVs were produced for the PEI Report. Following further site visits and reflecting comments received during consultation, the Study Area and extent of ZTV visibility was extended to 5km from the outer boundary of the solar panel areas of the Principal Site. ZTVs were revised to reflect the final layout at the ES stage.
- 12.4.12 ZTVs have been produced as both 'bare earth' and 'screened' versions. The latter provide an indication of the screening effects of woodland and buildings, based on a single height assigned to each type of feature. ZTVs were produced for the solar panels, the combined 'solar stations' and BESS; for each of the two proposed on-site substations; and for all of these elements combined. ZTVs are presented in **Figures 12-4a to 12-4j** of this ES [EN010142/APP/6.3].
- 12.4.13 It should be noted that the ZTVs for the solar PV panels do not demonstrate the theoretical visibility of such features across the entire Principal Site. Due to computer processing capabilities, reference points were taken from the outer boundary of the panel areas. ~~As such, some areas of panels, particularly along slightly higher topography such as the north-south ridge between the A631 and Harpswell Wood, may increase theoretical visibility beyond that shown. This outer boundary coincides with the highest points with the overall panel areas, close to Springthorpe Grange and immediately east of the barn south of Harpswell. As such, it is considered that the outer boundary of the panel areas is reflective of the worst-case visibility derived from the elevated locations.~~
- 12.4.14 The ZTVs for the Principal Site demonstrate the strong presence of the north-south oriented Lincoln Cliff or Edge. This almost completely prevents views of the Principal Site from locations further east of the B1398 Middle Street which runs along the top of the Cliff. To the west, theoretical visibility for the Principal Site encompasses an area up to and beyond the Study Area. Subtle topography results in theoretical visibility of the Solar PV Panels being absent from areas including the centre of Glentworth village, the majority of bridleway Fill88/1 between Glentworth and Fillingham and around Fillingham Lake.
- 12.4.15 When the screening effect of woodland and buildings is included, the extent of theoretical visibility of the Solar PV Panels is locally reduced, including theoretical absence of views from areas within much of Fillingham village and a wider area around Glentworth.
- 12.4.16 The 'screened' ZTVs do not, however, demonstrate the screening effects of existing hedges and hedgerow trees, which can markedly reduce visibility of elements such as solar panels, particularly when in leaf. For example, visibility of the solar panels indicated by the ZTV immediately adjacent to the Principal Site along Common Lane west of Heapham is not likely to be available, due to the dense, tall hedgerows. The cumulative screening by multiple trees and hedgerows combined with distance will rapidly limit visibility of the site away from elevated locations.

- 12.4.17 Overall, and taking the ZTVs, site surveys and professional judgment into account, appreciable views of the Principal Site are largely expected to be limited to approximately 1km within low-lying areas. Beyond this, the exception is along Lincoln Cliff, particularly between Hemswell and Fillingham, where longer-range views will be available, up to 5km. The 5km Study Area (**Figure 12-3** of this ES [EN010142/APP/6.3]) is therefore considered to be representative and proportionate, with significant effects arising from the Principal Site not expected beyond this distance.
- 12.4.18 No ZTVs have been prepared for the Cable Route Corridor. Visual impacts will mainly arise through short-term, temporary construction works that will not be undertaken along the whole route at the same time and for the most part will involve relatively small-scale machinery. For these reasons, a single ZTV, which would not reflect localised vegetation such as hedgerows, would substantially exaggerate the likely visibility of the works. As such, assessment of likely effects for the Cable Route Corridor has been undertaken through a combination of baseline surveys and professional judgement to within a 1km buffer from the external boundary to the corridor (**Figure 12-3** of this ES [EN010142/APP/6.3]) which is considered proportionate. No significant landscape or visual effects are expected for the Cable Route Corridor beyond this distance.

Sources of Information

Desktop Survey

12.4.19 Sources of information consulted include:

- a. ZTVs, aerial photography, historic mapping and OS mapping at various scales;
- b. Relevant national energy policies, planning policy and planning practice guidance;
- c. Relevant Lincolnshire and Nottinghamshire landscape and visual amenity related Local Plan policies and supporting evidence base documents such as landscape strategies;
- d. Published landscape character assessments;
- e. Local history websites;
- f. Neighbourhood Plans and supporting evidence, including character profiles and appraisals;
- g. Conservation area appraisals;
- h. Feedback provided formally and informally through consultation, including events; and
- i. Reporting and surveys from other EIA disciplines such as cultural heritage and biodiversity.

Field Survey

12.4.20 Fieldwork and photography was undertaken between May 2022 and November 2023, ranging from full day site surveys to more site-specific visits to meet residents, tenants and landowners. Each visit provided an opportunity to view the Principal Site, Cable Route Corridor and Study Area

in different seasons and in varied weather conditions. These surveys assisted in the verification of statements within the published landscape character assessments, allowed an analysis of the landscape character and ascertained the likely visibility of the Scheme by identifying visual receptors.

Methodology for Assessment of Landscape and Visual Effects

Assessment Criteria

- 12.4.21 A full methodology for the assessment is provided in **Appendix 12-2 Methodology for Assessment of Landscape and Visual Effects** of this ES [EN010142/APP/6.2]. This broadly reflects that which is described in **Chapter 5: EIA Methodology** of this ES [EN010142/APP/6.1], but also takes into account discipline-specific aspects of the methodology described in Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013) (GLVIA3) (Ref. 12-1). This is the standard reference for undertaking LVIA in the UK. Details of other relevant documents are provided in **Appendix 12-2** of this ES [EN010142/APP/6.2].
- 12.4.22 For clarity and in accordance with good practice, the assessments of potential effects on landscape character and visual amenity, although closely related, are undertaken separately.
- 12.4.23 This assessment methodology establishes the baseline landscape and visual conditions of the Study Area. Following appraisal of this baseline landscape, the LVIA then assesses the:
- Sensitivity of both landscape and visual receptors derived from their susceptibility and value, with value determined through consideration of the baseline;
 - Magnitude of change on the receptor, derived from scale/extent, duration and reversibility, whether adverse or beneficial; and
 - The level and significance of the effect, based on a comparison of the sensitivity of the receptor and magnitude of change of the effect.

Significance of Effect

- 12.4.24 The level of the landscape or visual effect and the resulting determination of significance is derived from the relationship between the sensitivity of the receptor and the magnitude of effect. A guide to this relationship is set out in **Table 12-1** below.

Table 12-1: Classification of Effects Matrix

Sensitivity of Receptor	Magnitude of Potential change/impact				
	High	Medium	Low	Very Low	None
High	Major	Major	Moderate	Minor	Neutral
Medium	Major	Moderate	Minor	Negligible	Neutral
Low	Moderate	Minor	Negligible	Negligible	Neutral

Very Low	Minor	Negligible	Negligible	Neutral	Neutral
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- 12.4.25 Following the classification of an effect, clear statements have been made within the LVIA as to whether that effect is considered significant or not significant. Residual effects (those that remain after mitigation) that are found to be ‘moderate’ or ‘major’ are deemed to be ‘significant’ and may be important or relevant to the decision-making process. Effects found to be ‘negligible’ or ‘minor’ are considered to be ‘not significant’.
- 12.4.26 GLVIA3 states that this is not a prescriptive process and that tables and matrices are provided as a guide to how combinations of sensitivity and magnitude are typically combined. In this LVIA, reasoned explanations of judgements made on effect significance are based on consideration of the factors set out in **Appendix 12-2** of this ES [EN010142/APP/6.2] as an indicative framework. However, conclusions of significance may differ from those in the table when supported by evidence.

Relationship to Residential Visual Amenity Assessment

- 12.4.27 The LVIA assesses the potential visual effects to different types of visual receptor (people with views). This includes residential receptors, i.e. private views, by means of representative viewpoints from publicly accessible locations, along with judgments based on information including aerial mapping.
- 12.4.28 Residential Visual Amenity, according to the Landscape Institute’s Technical Guidance Note (TGN) 2/19: ‘Residential Visual Amenity Assessment’ (Ref. 12-2), is defined as:
- 12.4.29 “...the overall quality, experience and nature of views and outlook available to occupants of residential properties, including views from gardens and domestic curtilage”.
- 12.4.30 Significant adverse effects on views and visual amenity may be experienced by residential receptors. In itself, this does not normally cause planning concern, but there may be situations where the effect is so significant that it is not generally considered to be in the public interest to permit such conditions where they did not exist before.
- 12.4.31 In circumstances where an effect is potentially this significant, a Residential Visual Amenity Assessment (RVAA) may be prepared to assist in making judgements as to whether (with reference to TGN 2/19), this ‘Residential Visual Amenity Threshold’ (RVAT) has been reached and that the effect may potentially affect ‘living conditions’ or residential amenity.
- 12.4.32 The RVAT guidance is based upon a four-step approach. Steps one to three accord with the above LVIA methodology whereby, in line with GLVIA3, visual receptors are identified, along with the magnitude of impact and the significance of effect; and concluding which properties may be assessed further.

12.4.33 For identified properties, stage four comprises further assessment in order to make a concluding judgement as to whether or not the RVAT threshold has been reached.

12.4.34 The guidance states that there are no ‘hard and fast rules’ as to making a judgement on RVAT and notes:

12.4.35 “LVIA findings of significant (adverse) effects on outlook and/or on visual amenity at a residential property do not automatically imply the need for a RVAA. However, for properties in (relatively) close proximity to a development proposal, and which experience a high magnitude of visual change, a RVAA may be appropriate, and may be required by the determining / competent authority.”

12.4.36 Consideration of residential visual amenity and justification that an RVAA is not required in respect of the Scheme is provided in **Section 12.8**.

12.5 Stakeholder Engagement

12.5.1 A request for an EIA Scoping Opinion, **Appendix 1-2: EIA Scoping Opinion** of this ES [EN010142/APP/6.2], was sought from the Secretary of State through the Planning Inspectorate in 2022 as part of the EIA scoping stage.

12.5.2 Consultation on landscape and visual matters was also undertaken prior to the submission of the PEI Report. This is summarised below and in **Table 12-2**.

- a. Site meetings with residents at around twelve properties close to the Principal Site to introduce the Scheme and understand potential landscape and visual concerns (11 and 12 July 2022);
- b. Follow-up visits to local residents (5 September 2022);
- c. Site meeting with the Lincolnshire County Council (LCC) Landscape Officer, to review the baseline and broad principles for the assessment, including representative viewpoints (20 October 2022); and
- d. Online meeting with the LCC Landscape Officer, to discuss matters including potential future viewpoints, methodology and approach (24 November 2022).

Table 12-2: Main Matters Raised Through the Scoping Opinion and Stakeholder Meetings

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
Residents along Kexby Road and Common Lane (site meetings with land agent)	Concerns over visibility of the Scheme and general landscape effects.	Landscape-led design development, with use of screening and iterative approach to design to reduce effects.	Sections 12.5 and 12.6 and of this chapter and Figures 3-1 and 12-2 of this ES [EN010142/APP/6.3]
Planning Inspectorate	Comments on LVIA scope and methodology, including the Study Area extent; visual effects on River Trent receptors and impacts from lighting.	Study Area amended to take account of greater visibility from Lincoln Cliff; inclusion of representative viewpoint on River Trent; lighting considered within assessment.	Sections 12.3 12.4, 12.4, 12.5,12.7 and 12.8 of this chapter.
Canal & River Trust	The ES should demonstrate that significant visual impacts will not occur to receptors using the River Trent.	An assessment has been undertaken for river and riverside receptors.	Section 12.8 of this chapter.
Civil Aviation Authority	It is recommended that impact assessments are undertaken on Sturgate Airfield, particularly with reference to draft NPS-EN3 and potential impacts from glint and glare on aviation navigation.	A glint and glare assessment has been undertaken in relation to the Scheme (refer to Appendix 17-2 of this ES [EN010142/APP/6.2]), which concludes that impacts on Runway 27 at Sturgate Airfield are low and not significant.	Section 12.7 of this chapter and Appendix 17-2 of this ES [EN010142/APP/6.2] .

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
Glentworth Parish Council, Marton and Gate Burton Parish Council	Requirement to include images reflecting potential adverse visual effects from locations along Middle Street (Area of Great Landscape Value [subject to Central Lincolnshire Local Plan policy (Ref. 12-3)] and Lincoln Cliff.	Representative viewpoints have been selected along Middle Street, with three visualisations provided.	Sections 12.6 and 12.8 of this chapter and Figures 12-13 and 12-14 of this ES [EN010142/APP/6.3]
LCC Planning (landscape, through Scoping response)	Comments on LVIA scope and methodology, including consideration of Residential Visual Amenity Assessment (RVAA) where required; agreement of on viewpoints and visualisations with LCC; that susceptibility should consider recreational users of lanes and tracks; and use of an assessment of landscape effects at a range of scales and finer grain.	Justification provided for discounting the need for an RVAA; agreement reached with LCC on viewpoints; recreational use of rural roads informs baseline sensitivity; 'bespoke' local landscape character assessment undertaken.	Sections 12.2, 12.3, 12.6 and 12.8 , , and of this chapter.
National Grid (through Scoping response)	Request that only slow and low-growing species of trees and shrubs are planted beneath and adjacent to existing overhead lines.	The mitigation and enhancement planting for the Scheme will incorporate recommendations on plant species within easements and wayleaves for overhead lines, and will be included in the Framework LEMP.	Framework LEMP [EN010142/APP/7.17]
Natural England	Recommendations including habitat creation that complements the surrounding area, enhancing existing features, improving connectivity and	Provision of buffers to hedges, trees and watercourses; and proposed enhancement coordinated with ecology and in accordance with Local	Sections 12.6 and 12.7 of this chapter and

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	contributing to the Nature Recovery Network; and use of widened field boundaries/buffers and compensatory off-site habitats.	Plan and Landscape Character guidance on Green Infrastructure and biodiversity; included in the Framework LEMP [EN010142/APP/7.17] .	Figure 3-1 of this ES [EN010142/APP/6.3] Framework LEMP [EN010142/APP/7.17]
West Lindsey District Council	Noted Area of Great Landscape Value (AGLV) designation; requested that the ZTV extends to Middle Street; and that the LVIA considers cumulative effects with the other NSIP solar projects.	Representative viewpoints have been included from the AGLV and consultation on viewpoints undertaken. ES includes an assessment of cumulative landscape and visual effects	Sections 12.3, 12.4, 12.6 of this chapter and Chapter 18: Cumulative Effects and Interactions of this ES [EN010142/APP/6.1]
Willingham by Stow Parish Council (through Scoping response)	Concerns in relation to visual impacts, including the attractive link between the village and the countryside; and the loss of footpaths and byways during construction.	Key constraints and sensitivities have informed the design of the Cable Route Corridor and landscape and visual effects have been assessed within this area.	Sections 12.6 and 12.8 of this chapter.
LCC Landscape Officer following meetings on site and Teams (November 2022)	Request that viewpoints are reviewed before finalising and taken from the most advantageous locations.	Agreement reached on final viewpoint locations.	Sections 12.3 and 12.5 , of this chapter.

12.5.3 Further consultation in response to formal pre-application engagement was undertaken through the PEI Report. **Table 12-3** outlines the statutory consultation responses relating to landscape and visual amenity and how these have been addressed through the ES. Responses have been grouped thematically where relevant, but all relevant consultees are listed. No additional comments were received during the subsequent round of targeted consultation.

Table 12-3: Main matters raised through the Statutory Consultation

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
Canal and River Trust	Visual impacts on the River Trent to be assessed within the context of the river being a navigable waterway.	A representative viewpoint on the Trent Valley Way has been used to support the visual assessment.	Section 12.8 of this chapter and Figure 12-13-aa of this ES [EN010142/APP/6.3] .
Glentworth Parish Council	Impacts during construction; and the landscape as a protected asset, including important views outlined in the Glentworth Neighbourhood Plan (Ref. 12-5).	Traffic movement and noise has been considered within the LVIA; and the Neighbourhood Plan has informed the assessment of the value and sensitivity of the landscape baseline.	Sections 12.3, 12.6 and 12.8 12.7 of this chapter.
Lincolnshire County Council (Landscape Officer)	Comments relating to the scope and methodology of the LVIA, including impacts from larger and taller elements such as the substations, including updated ZTVs; more detailed assessment of impacts along the Cable Route Corridor, including a 'combined crossing' of the Trent; clarification on elements including Study Area, rationale and choice of viewpoint and visualisation locations and timescales for assessment; and robust assessment of cumulative effects supported by a methodology.	Further consultation with LCC has informed the viewpoints selected for the Environmental Statement. The presence of elements other than the panels within the assessment has been noted; and with for the Cable Route Corridor, a more comprehensive baseline and representative viewpoints (with respect to the PEIR) have been provided to ensure consistency of assessment with that of the Principal Site. Confirmation that the viewpoints and methodology were suitable, and no further locations were required (subject to any changes in the Scheme) was provided on 21 September 2023. A cumulative assessment has been provided as a separate chapter based on a methodology that is consistent for all disciplines.	Sections 12.3, 12.4 and 12.6 of this chapter and Chapter 18: Cumulative Effects and Interactions of this ES [EN010142/APP/6.1] .

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
Various respondents	Comments about lost views and negative impacts on the AGLV Local Plan designation to Lincoln Cliff, including views from locations along Middle Street.	Assessments supported by visualisations have been provided for Middle Street/Lincoln Cliff: it is accepted that impacts will arise, and that screening of the Scheme will also locally restrict the valued views, although the effects arising from the presence of this screening are not significant.	Sections 12.3, 12.4, 12.6 and 12.8 of this chapter and Chapter 18: Cumulative Effects and Interactions of this ES [EN010142/APP/6.1].
Various respondents	Concerns over the changing the character of the area, the scale of the scheme, industrialising of the landscape and difficulty of mitigating visual impacts.	Significant effects at all stages are assessed but are expected for large-scale infrastructure projects and the ‘industrialisation’ has been noted in the LVIA. Such effects will be weighed in the planning balance against benefits, including a reduction in intensive farming practices and provision of new habitats that will enhance biodiversity across a wide area once established.	Sections 12.6, 12.7 and 12.8 of this chapter.
Resident	Clarification and details including commitments to woodland planting and meadow creation north and south of Kexby Road.	Provision of woodland and grassland to the north of Kexby Road has been retained, with some adjustments for site constraints. Tree planting will be provided to the far southern boundary in pace of that originally proposed to the southern side of Kexby Road, planting will be secured through the Framework LEMP [EN010142/APP/7.17]	Sections 12.6 and 12.7 of this chapter; Figure 3-1 of this ES [EN010142/APP/6.3]; and the Framework LEMP [EN010142/APP/7.17]
Resident	Unacceptable use of AGLV north of Glentworth for mitigation and	No solar infrastructure will be located in the AGLV, although a temporary access road will use an existing track from Middle Street.	Sections 12.6 and 12.7 of this chapter and Figure

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	enhancement, contrary to Central Lincolnshire Plan Policy S62	Within the AGLV, mitigation and enhancement will include the introduction of more ecologically diverse habitats and green infrastructure that accord with the Plan policy and published Landscape Character Assessment guidance.	3-1 of this ES [EN010142/APP/6.3] .
Resident	Lack of mitigation from elevated residential viewpoint on the Cliff.	It is acknowledged that visual effects from representative viewpoints on the Cliff will be significant, even when any mitigation is established; and that reduction in visual impacts at this location is very difficult.	Section 12.6 of this ES [EN010142/APP/6.3] .
Resident	The Scheme would cause harm to the setting of Hemswell and Harpswell and is in breach of the Hemswell and Harpswell Neighbourhood Plan (Ref. 12-6).	The Neighbourhood Plan and supporting documents have been considered in detail in the baseline, with much of the landscape within Harpswell afforded a 'High' landscape value. Solar infrastructure has been pulled back to reduce impacts from the Scheduled Monument at Harpswell Hall, the associated moat and well-used walking routes. It is acknowledged that there will be impacts on views from the AGLV around Middle Street.	Sections 12.6 and 12.8 of this chapter and Figure 3-1 of this ES [EN010142/APP/6.3] .
Resident	Consideration of the proposed bridleway between Glentworth and Harpswell and potential visual impacts.	The importance of this route has been highlighted through the consultation process. No panels are proposed along the route and the Scheme will not prejudice the proposal. The majority of the route will be screened by existing trees, with further vegetation along	Sections 12.6 and 12.7 of this chapter.

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
		the eastern edge of the Principal Site limiting views once established.	
Resident	Impacts on views from Harpswell Moat and associated historic vistas.	The importance of these designed views has informed baseline landscape and visual value and are also considered within the Cultural Heritage assessment. The Principal Site boundary has been withdrawn further west from the Scheduled Monument to reduce impacts and allow more scope for mitigation planting, as demonstrated in the visualisation for representative viewpoint 14.	Sections 12.4, 12.6 and 12.7 of this chapter; Figure 12-14h ; and Chapter 8: Cultural Heritage of this ES [EN010142/APP/6.1].
Resident	Impacts on the open section of Common Lane and recreational amenity, including loss of views from proposed hedging.	The LVIA notes the loss of views and the impacts from the proposed mitigation hedgerows as a change in the nature of the view. However, hedgerows have largely been removed through agricultural intensification, are not out of character with the wider area and new planting will locally benefit biodiversity and green infrastructure.	Sections 12.6 and 12.7 of this chapter.
Resident	Concerns regarding the locations and suitability of screening to the proposed substations and office buildings.	The locations for these facilities have been selected to limit visual effects through the presence of existing woodland, ensuring a suitable distance from sensitive receptors.	Sections 12.6 and 12.7 of this chapter.
Resident	Request for native trees and more wildlife areas, including wildflower meadows.	Tree species will be native and appropriate for Lincolnshire, with consideration of climate change and future risk from pests and disease. All areas within the Principal Site,	Sections 12.3, 12.4, 12.6 and 12.7 of this chapter and the Framework

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
		including beneath the panels, will be seeded and managed in order to maximise habitat and species diversity.	LEMP [EN010142/APP/7.17]
Resident	Concerns regarding the presence of fencing and security e.g. CCTV.	Fencing and CCTV poles will be located behind existing and proposed hedging. Fencing will be timber and wire mesh, which is not out of keeping with the agricultural character. Visualisations indicate the likely visibility of these features and their presence has been considered within the LVIA.	Sections 12.6 12.7 and 12.8 of this chapter.
Various respondents	Concerns regarding cumulative landscape and visual effects with other major solar schemes.	The LVIA includes an assessment of cumulative effects, including for locations on Lincoln Cliff (supported by visualisations); and for sequential views when travelling through the wider area. It is acknowledged that significant landscape and visual effects (including cumulative) will arise; such significant effects require weighing in the planning balance against benefits of the Scheme.	Chapter 18: Cumulative Effects and Interactions of this ES [EN010142/APP/6.1] ; and the Joint Report on Interrelationships with Other Nationally Significant Infrastructure Projects [EN010142/APP/7.6]
Various respondents	Concerns in relation to the Scheme being too close to local communities.	Early design input informed the layout of the Principal Site, which was intentionally set back from villages including Glentworth and Springthorpe.	Sections 12.6 and 12.7 this chapter.
Respondent	Concerns regarding the presence of solar panels in existing residential, rural views	A set-back of undeveloped land has been provided along the A631 at this location, which will be planted with woodland.	Sections 12.6 and 12.7 of this chapter.

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	along the northern A631 boundary to the Principal Site.		

12.6 Baseline Conditions

12.6.1 This section provides:

- a. A description of the landscape baseline within the Order limits and the associated Study Area;
- b. The baseline visual amenity in relation to views of the Scheme; and
- c. Consideration of the value of landscape and visual receptors.

12.6.2 The Scheme, including the Principal Site and the majority of the Cable Route Corridor, is located within Lincolnshire in the West Lindsey District. To the west, the River Trent forms the boundary with Nottinghamshire, which contains the western termination of the Cable Route Corridor that lies within the Bassetlaw District.

12.6.3 An overview of the baseline conditions within the Order limits and Study Area is provided below. For further detail, reference should be made to the baseline Local Landscape Character Assessment, which is summarised below and provided in detail in **Appendix 12-3** of this ES [EN010142/APP/6.2].

Overview of the Landscape and Visual Baseline: Principal Site

12.6.4 The Principal Site is located on farmland between the settlements of Springthorpe and Heapham in the west; Hemswell and Harpswell in the northeast; and Glentworth to the east.

12.6.5 The land within the Principal Site is generally flat and low-lying but dominated in the east by the scarp slope of Lincoln Cliff (or Edge). The Cliff is a notable topographic feature in Lincolnshire, extending in a relatively straight, north-south line from around Scunthorpe to Grantham. It is derived from the presence of the more resistant Upper Jurassic Lincolnshire Limestone formation.

12.6.6 Although relatively modest in elevation (rising to around 67m Above Ordnance Datum (AOD) above Glentworth), the Cliff contrasts with the low-lying farmlands in the west that comprise much of the Principal Site, making the latter a prominent local feature. Expansive views are available from the crest (scarp) of the Cliff, extending across the Trent valley and with good visibility as far as the Peak District, over 60km to the west. Also visible are the landmark cooling towers of coal-fired power stations of the Trent Valley: West Burton to the north, and Cottam (now decommissioned) in the south.

12.6.7 Away from the Cliff, the land dips imperceptibly from a watershed along Common Lane to low points of around 20m AOD, to the north on the A631 near Hemswell Grange; and to the south on Kexby Lane. A slight watershed also runs north-south through the centre of the Principal Site, falling very gently west towards Springthorpe from a high point of 27m AOD near Harpswell Wood.

12.6.8 Ditches or small watercourses form the boundaries to some fields, particularly in lower-lying areas, although their visibility on the ground is

limited. Many have been straightened through agricultural improvement and generally drain south or west, towards the River Till that rises near Corringham and flows towards Lincoln, where it is named the Foss Dyke. Tributaries to the west of Harpswell flow north, into the River Eau. Intensive farming has led to siltation, low water quality and limited biodiversity within the watercourses. There is also a small number of isolated ponds.

- 12.6.9 The Principal Site largely comprises fields that are medium to large scale and rectilinear, reflecting planned enclosure and modern consolidation of fields. These are almost exclusively managed as arable farmland through with intensive agricultural practices. Game bird cover strips or grassland margins are present along the edges of some fields.
- 12.6.10 The fields are generally bounded by hedges, occasionally with trees, but hedges are often cut low and sometimes absent. Hedgerows closer to the edges of villages and along some roads or tracks are often wider and taller, with more numerous trees. Several trees have been identified (**Appendix 12-7: Arboriculture Impact Assessment** of this ES [EN010142/APP/6.2]) as 'veteran', of large diameter and good vitality; with a single crab apple (near Harpswell Low Farm) identified as 'ancient' for the species due to the large stem diameter.
- 12.6.11 Tree cover is relatively sparse, mainly comprising isolated blocks of woodland. Harpswell Wood (11 ha) is the largest, with others including belts of deciduous (mainly dominated by oak and ash) or mixed woodland along field boundaries. Some are relatively recent in age, with **Appendix 12-7: Arboriculture Impact Assessment** of the ES [EN010142/APP/6.2] and aerial images indicating that plantations south of Harpswell Grange and around Westlands Farm were planted approximately 30 years ago. A small number of hedgerows have been identified as 'historic' (refer to **Chapter 8: Cultural Heritage** of this ES [EN010142/APP/6.1]).
- 12.6.12 The A631 forms the northern boundary of the Principal Site: a relatively busy national speed limit, single-carriageway route that links Gainsborough and Market Rasen. Roads through the Principal Site itself are notably limited and restricted to unclassified, single-track roads. The two longest run east-west: Common Lane, linking Heapham and Harpswell; and Kexby Road, which forms part of a route from Upton to Glentworth. Others are School Lane, east of Springthorpe; and Northlands Road, west of Glentworth.
- 12.6.13 Farm tracks, particularly older, more historic features such as Bratt Field Middle and South Road (east of Springthorpe) run generally east to west, following the dominant field pattern and reflecting former enclosure routes. The presence of hedgerows along these roads varies, with taller vegetation along the section of Common Lane east of Heapham, but also very open sections west of Harpswell, where such features are absent. The latter allow expansive views, including towards the Cliff.
- 12.6.14 Built form within the outer boundary to the Principal Site is limited to isolated farmsteads and houses, although it should be noted that residential properties and curtilage are excluded from the Order limits. Most are associated with outbuildings such as modern portal barns. Older properties are red brick with pantile roofs. The majority have small garden areas,

sometimes bounded by hedges and trees. There are also a very small number of isolated barns not associated with residences.

- 12.6.15 Part of the former Sturgate Airfield is within the southwest of the Principal Site: a former World War II RAF base that has been partly returned to agricultural use, with remnant sections of runway used for storing of materials. The operational airfield lies outside the Order limits to the west.
- 12.6.16 Public Rights of Way (PRoW) are notably limited within the Principal Site, the only route being on the southern periphery: a bridleway extending south from Kexby Road near Glentworth Grange, towards Willingham Road (Gltw/85/1).
- 12.6.17 At the time of ES preparation, an application to claim a new bridleway has been submitted to LCC, reinstating a section of the historic 'low' route along the base of the Cliff between Harpswell and Glentworth, parallel to Middle Street.
- 12.6.18 Overall, the combination of low-lying farmland with limited woodland cover, sparse built form and low or absent hedgerows creates a very expansive character with open and long-range views. The exception is the locally distinctive landform of Lincoln Cliff to the east, which provides a backdrop to many of these views, as well as offering panoramas from the feature itself.

Overview of the Landscape and Visual Baseline: Principal Site 5km Study Area

- 12.6.19 The Study Area, being the area up to 5km surrounding the Principal Site, is broadly similar to that described above, but with the presence of a number of settlements. These are listed below, with approximate distances provided between the nearest edge of the settlement and Principal Site. Settlements (other than Hemswell Cliff) to the east of Middle Street and Lincoln Cliff are not listed, as no visibility is expected. Distances are not necessarily to the nearest solar infrastructure.
- a. Yawthorpe: 1.0km north;
 - b. Willoughton: 2.7km north-east;
 - c. Blyborough: 4.1km north-east;
 - d. Hemswell: 600m north-east;
 - e. Hemswell Cliff: 700m east;
 - f. Harpswell: 540m east and 120m north;
 - g. Glentworth: 320m south
 - h. Fillingham: 1.4km south-east;
 - i. Ingham: 3.3km south-east;
 - j. Coates: 3.0km south;
 - k. Normanby-by-Stow: 4.6km south-west;
 - l. Willingham-by-Stow: 3.5km south-west;
 - m. Kexby: 2.4km south-west;
 - n. Upton: 1.8km south-west;

- o. Knaith Park: 4.9km south-west;
- p. Heapham: 350m west;
- q. Sturgate: 1.0km west;
- r. Springthorpe: 570m west;
- s. Corringham: 1.0km north-west;
- t. Aisby: 2.0km northwest;
- u. Pilham: 3.4km north-west; and
- v. Blyton: 4.5km north-west.

12.6.20 Settlements along the lower scarp slope of Lincoln Cliff are termed 'springline' villages, locally including Hemswell, Harpswell, Glentworth and Fillingham.

12.6.21 Of the two closest to the Principal Site, Harpswell is scattered and open in character, dominated by the Grade I listed 11th century Church of St. Chad. Glentworth is more enclosed, with narrow lanes around the Grade II* listed Church of St. Michael but with the Grade II* listed Glentworth Hall located in more open grounds to the north.

12.6.22 Prominent on the elevated crest of Lincoln Cliff is Fillingham Castle, a Grade I listed 18th century Gothic style castle, set within a designed landscape that is designated a Grade II Registered Park and Garden.. The woodland around the Castle contrasts with generally open farmland along the remainder of the ridge and the gentle east-facing dip slope.

12.6.23 The elevated location was well-suited to World War II airfields. The former RAF Hemswell, around 1km north-east, is now the site of industrial and commercial units and a popular Sunday market, with the RAF married quarters providing private housing. RAF Scampton, around 6.5km south, was the base for the Red Arrows until closure in October 2022, although the aircraft (now based at RAF Waddington) still practice over the Study Area.

12.6.24 The closest settlements to the west of the Principal Site are the villages of Springthorpe and Heapham and the hamlet of Sturgate. The Grade I listed Church of All Saints at Heapham is, unusually for the area, set within fields. Around these settlements, fields are generally smaller than in the Principal Site, reflecting ancient enclosure patterns. These are bounded by taller more dense hedges that often restrict views and contrast with the surrounding open landscapes. The villages are located on marginally higher ground, which continues to the north to include Corringham; and south to include Upton, Kexby, Willingham-by-Stow and Stow.

12.6.25 North and south of the Principal Site is the flat, open farmland of the Till and Eau rivers that forms a broad 'vale', with a broadly similar character to the Principal Site itself. It comprises scattered farmsteads, large post-enclosure fields, occasional woodland blocks (such as the 13ha Big Wood), rural roads often running east-west and generally few PRow. Notable features include deserted medieval villages such as at Dunstall and Coates. As with the Principal Site, built form is limited and in this case restricted to small hamlets such as Yawthorpe and the remnant buildings at Coates.

- 12.6.26 PRow are relatively limited within the more open farmland, with routes being generally centred on the slightly higher ground around villages. The exceptions are a small number of broadly north-south bridleways and footpaths that link Glentworth, Fillingham and Ingham.
- 12.6.27 Immediately to the west of the Principal Site, around Sturgate, a recently adopted byway and a 'temporary voluntary permissive bridleway' have created a small circular walking, cycling and horse riding route linking Green Lane and Bratt Field Middle Road.
- 12.6.28 The notable exception to the above is the provision of permissive, informal recreational access at Harpswell. This is largely within the open green space and around the historic moat on the site of the former Harpswell Hall (a Scheduled Monument). These routes are signed and easily accessible from a parking area adjacent to Hall Farm, where an open garden and small artisan businesses represent a low-key visitor attraction. Permissive access is also available around the boundary of a field to the west of Hall Farm.
- 12.6.29 Where PRow are absent, quiet rural lanes, particularly where close to villages, provide opportunities for recreation including walking, cycling and horse-riding. As an example, Northlands Road offers a circular route on the edges Glentworth. Some routes have wide, grassed verges which are protected at certain locations through the county Roadside Nature Reserve scheme and designated as Local Wildlife Sites.
- 12.6.30 Oil wells west and south of Glentworth are incongruous but low-key features, with 'nodding donkeys' set behind screening bunds and palisade fencing. Oil is removed by road tankers.
- 12.6.31 The operational Sturgate Airfield is located to the west of the Principal Site, with the truncated runway housing the Lincoln Aero Club. Between the airfield and the Principal Site is a small waste processing facility on the former runway, with the surrounding area having a generally functional and sometimes degraded appearance.

Overview of the Landscape and Visual Baseline: Cable Route Corridor

- 12.6.32 The character of much of the eastern part of the Cable Route Corridor is broadly similar to that described for the Principal Site and associated Study Area above, comprising low-lying or very gently undulating arable farmland with occasional woodland blocks and scattered farmsteads or isolated properties.
- 12.6.33 Field boundaries are slightly more sinuous further to the southwest, with marginally more pronounced topography around Marton, where a gentle north-south ridge exists, with steeper slopes facing west across the River Trent. PRow are again generally limited east of the River Trent. The A156 runs north-south between Gainsborough and Newark, with the A1500 branching east towards Lincoln, along the alignment of a Roman Road that led to a historic crossing point of the Trent at Littleborough. Traffic along the main roads reduces tranquillity in this area. Stow village includes the Grade I listed Minster, of Saxon and Norman origin and of substantial proportions relative to the size of the settlement.

- 12.6.34 The River Trent is a prominent landscape feature, representing the boundary of Nottinghamshire and Lincolnshire. The absence of any road crossing along the 15km stretch between Gainsborough and Dunham Bridge to the south creates a barrier to east-west vehicle traffic, although the Grade II* railway viaduct at Torksey now carries a walking and cycling route. Along the Trent and contrasting with the wider, more intensively farmed land are narrow riverside pastures and riparian woodland, with some of the latter designated as Local Wildlife Sites.
- 12.6.35 West of the River Trent, the Cable Route Corridor is dominated by industrial infrastructure including the cooling towers of the decommissioned coal-fired Cottam power station, one of three constructed along the Trent during the 1960s. The adjacent gas turbine plant (Cottam Development Centre) which opened in 1999 is smaller but also has a functional character. A number of high voltage overhead lines with pylons terminate at a large National Grid substation to the south. The wider area includes former coal storage areas and ash tips, some now restored with woodland; and designated as Local Wildlife Sites. These are set within low-lying farmland comprising medium to large-scale rectilinear fields.
- 12.6.36 At the time of ES preparation, some demolition of Cottam Power Station had taken place, with the landmark cooling towers also scheduled for removal. Much of the power station site is identified in the Local Plan for mixed-use redevelopment. The demolition of the power station, particularly the cooling towers, will result in a change in the future baseline, similar to that experienced following closure and demolition of the cooling towers at High Marnham Power Station (around 8km to the south) in 2003 and 2012 respectively.
- 12.6.37 Although located around 5km north of the Cable Route Corridor, the cooling towers and chimney of the coal fired West Burton power station further reinforce the presence of energy infrastructure in the wider landscape, although these are also scheduled for demolition in the near future.
- 12.6.38 The village of Cottam lies immediately north of the power station, but partly screened by mature trees and woodland belts around the latter. The village of Rampton lies around 1km to the east, with a network of well-used PRow between the village and the River Trent, including the unsurfaced byway Torksey Ferry Road.

Designations relevant to LVIA

- 12.6.39 Designations or land use categories which relate fully or contribute to landscape value in the Study Area are shown on **Figure 12-6** of this ES [EN010142/APP/6.3]. Reference should be made to **Chapter 8: Cultural Heritage** and **Chapter 9: Ecology and Nature Conservation** of this ES [EN010142/APP/6.1] for further details of the heritage and biodiversity designations.

International and National Designations

- 12.6.40 With reference to **Figure 12-6** of this ES [EN010142/APP/6.3], neither the Study Area nor the Order limits are covered by any statutory landscape designations (e.g. National Parks or National Landscapes, formerly Areas

Outstanding Natural Beauty); or any international designations that may inform landscape value, such as World Heritage Sites.

12.6.41 The boundary to the Lincolnshire Wolds National Landscape (an Area of Outstanding Natural Beauty (AONB)) lies around 18km to the east of the Principal Site at the closest point. No appreciable visibility of the Scheme is expected from the National Landscape due to distance and the intervening landform of Lincoln Cliff.

Local Designations

12.6.42 With reference to **Figure 12-6** of this ES [EN010142/APP/6.3], the Study Area includes areas protected through Central Lincolnshire Local Plan (Ref. 12-3) Policy S62 and denoted on accompanying Proposal Maps as AGLV.

12.6.43 Areas within the AGLV designation are subject to a greater level of policy protection reflecting their “*locally important high scenic quality, special landscape features and sensitivity*”. The policy wording also references the ‘setting’ of the AGLV, although the setting is not defined. Further details of this policy are included within **Appendix 12-1** of this ES [EN010142/APP/6.2]

12.6.44 Within the Study Area are two separate areas identified as AGLV. These include:

- a. The north-south scarp slope of Lincoln Cliff, extending from a point at South Carlton (north of Lincoln), northwards to the county boundary at Grayingham. The eastern extent is generally defined by the B1398 Middle Street, except where it includes the grounds to Fillingham Castle. The western boundary runs broadly along the base of the scarp slope, but also includes Fillingham Lake, land to the west of Glentworth village and Blyborough Hall.
- b. An area extending south from Gainsborough that includes historic parkland around Knaith and Gate Burton and continues as far south as the northern edge of Marton.

Other Designations Influencing Landscape Value: Heritage

12.6.45 A single Registered Park and Garden (Grade II) is associated with Fillingham Castle, located approximately 2.3km south-east of the Principal Site) at the nearest point. It comprises a mid- to late-18th century park and woodland surrounding the 18th century Gothic style (Grade I listed) castle. The Official List Entry for the park (Ref. 12-7) notes that the “...*ground falls away to the west, giving dramatic views over Fillingham Broad [Lake] and the village of Fillingham*”.

12.6.46 Scheduled Monuments, listed buildings, and conservation areas, whilst not specific landscape designations, may reflect landscape and architectural quality and can be relevant to development proposals that may impact upon them. The presence of such features can inform landscape and visual value and hence sensitivity. Further details are provided in **Chapter 8: Cultural Heritage** of this ES [EN010142/APP/6.1].

12.6.47 There are no heritage designations of this nature within the Principal Site and the Cable Route Corridor but within the Study Area there are numerous Listed Buildings, including Grade I churches in Harpswell, Springthorpe, Heapham and Marton.

12.6.48 The closest Scheduled Monuments to the Principal Site include Harpswell Hall (a post-medieval house and gardens which overlies earlier medieval remains) and a Moated Manorial Complex at Elm Tree Farm, Heapham. The closest to the Cable Route Corridor is the Fleet Plantation moated site, immediately south of the National Grid Cottam Substation and power station at Cottam.

12.6.49 A number of Conservation Areas are located close to the Scheme:

- a. Hemswell Conservation Area, within the central part of the village;
- b. Glentworth Conservation Area, within the historic core of the village and centred on the Church of St. Michael;
- c. Fillingham Conservation Area, which encompasses much of the village;
- d. Ingham Conservation Area, which covers the High Street and central Green; and
- e. Springthorpe Conservation Area, extending south from St. George and St. Lawrence's Church.

12.6.50 Summaries of the information that informs baseline landscape and visual receptor value within Conservation Area Appraisals and supporting assessments are provided below.

12.6.51 Two non-designated (unregistered) parks and gardens, listed on the Nottinghamshire Historic Record, are located north of Rampton village, around 300m west of the Cable Corridor. These are associated with grounds of Rampton Hall and Rampton Manor, both now demolished. Remnant elements include woodland to the north of the village, although the eastern extent of the area has been ploughed.

Other Designations Influencing Landscape Value: Nature and Biodiversity

12.6.52 National and local designations provide protection to areas of biodiversity value, which may inform landscape condition, quality and value. None are located within the Principal Site or Cable Route Corridor, but there is a single statutory designation (Site of Special Scientific Interest (SSSI)) for nature conservation value at Ashton's Meadow, around 1.3km west of the Cable Route Corridor.

12.6.53 There are a number of non-statutory sites designated for nature conservation within or close to the Cable Route Corridor. These include the following Local Wildlife Sites (LWS), designated for biodiversity value at county level:

- a. Willingham to Fillingham Road Verges and Upton Grange Road Verges LWS: species-rich road verges set within intensive agricultural fields, highlighted with temporary signs by the Wildlife Trust;

- b. Trent Port Wetland LWS, an area of grassland, scrub and wetland adjacent to the River Trent;
- c. Coates Wetland LWS, a mosaic of wetland, woodland and grassland on the west bank of the River Trent;
- d. Cottam Wetlands, an area of restored power station ash pits, including woodland and grassland; and
- e. Cow Pasture Lane Drains LWS, with notable aquatic and bankside vegetation, including a species-rich hedgerow.

12.6.54 No areas of ancient or semi-natural woodland are within the Order limits. The nearest is Burton Wood, around 550m north-west of the Cable Route Corridor, east of Gate Burton.

Landscape Baseline

Published Landscape Character Assessments and Related Studies

12.6.55 The Study Area is covered by published landscape character assessments and related studies at national, regional and county levels. Local planning authorities use published landscape character assessments as part of their planning policy evidence base. These assessments help guide development, underpin local planning policy and often provide specific guidance or recommendations on managing landscape change.

12.6.56 A summary of published landscape character assessments in the Study Area is provided below. Elements that have particular relevance to the Scheme and local matters, particularly where these may inform baseline value and sensitivity, are highlighted. More detail is provided in **Appendix 12-3** of this ES [EN010142/APP/6.2]. The Appendix also includes more comprehensive details of the Scheme-based local landscape character assessment, undertaken by the Applicant, which is also summarised below.

National Level Published Landscape Character Assessments

12.6.57 Natural England published maps and written descriptions of the landscape character of England, based on National Character Areas (NCA). The aim is to assist those who make decisions regarding local plans in considering how best to enhance and respect local distinctiveness. The Study Area (**Figure 12-8** of this ES [EN010142/APP/6.3]) includes two NCA. Each NCA includes a description of key characteristics, alongside 'Statements of Environmental Opportunity' (SEO) and 'landscape opportunities'.

12.6.58 NCA 45: North Lincolnshire Edge with Coversands (2014) (Ref. 12-8) covers the eastern edge of the Study Area, broadly parallel to the north-south Lincoln Cliff (or Lincoln Edge) of Jurassic limestone. Stated key characteristics include the limestone cliff and scarp slope that affords extensive views. SEO include references to establishing networks of linked habitats to strengthen biodiversity and landscape character; expanding semi-natural habitats; and retaining the inspirational long views. Landscape opportunities include protection of the scarp slope from inappropriate

development and retaining long, panoramic views; and increasing woodland cover on the slope.

12.6.59 NCA 48: Trent and Belvoir Vale (2013) (Ref. 12-9) encompasses the majority of the Study Area, with the wider NCA extending from Nottingham in the south to Gainsborough in the north. Stated key characteristics include the broad flood plain of the River Trent and the visual influence of power stations, pylons and overhead lines. SEO include references to enhancing the woodland and hedgerow network to benefit landscape character and habitat connectivity. Landscape opportunities also note the management of hedgerows, including to strengthen historic fields patterns; and the conservation of other high-quality habits, including management of species-rich grassy roadside verges.

East Midlands Regional Landscape Character Assessment

12.6.60 The East Midlands Regional Landscape Character Assessment (Ref. 12-10) (refer to **Figure 12-9** of this ES [EN010142/APP/6.3]) identifies 31 Regional Landscape Character Types (RLCTs) within 11 broad groups. The description for each RLCT includes a review of 'Forces for Change', alongside aims to counter adverse impacts and promote positive change.

12.6.61 Within Group 3 'River Valley Floodplains' is RLCTS 3a Floodplain Valleys, which within the Study Area encompasses the flood plain of the River Trent, mainly to the west of the river. Key aims include the protection of existing river valley features; restoration of river valley meadows; and provision of a diverse range of habitats.

12.6.62 Within Group 4 Lowland Vales is RLCTS 4a Unwooded Vales, which covers the majority of the Study Area, including much of the low-lying land between the Trent and Lincoln Cliff. Key characteristics include long-distance and expansive views from higher ground; low hills and ridges that gain visual prominence in an otherwise gently undulating landscape; and small villages and dispersed farms linked by quiet rural lanes. Key aims include restoration and creation of new hedgerows; creation of permanent pasture alongside watercourses; and increasing the occurrence of semi-natural habitats. Extensive woodland planting is not generally considered to be appropriate, but the report states that limited tree planting could help create a mixed pattern of land-use, increasing the occurrence of semi-natural habitats and maintaining the perception of a well-treed landscape. Also within Group 4 Lowland Vales is RLCTS 4b Wooded Vales, which extends north from Gate Burton to Gainsborough.

12.6.63 Within Group 6 Limestone Farmlands is RLCTS 6a Limestone Scarps and Dipslopes, which covers the north-south escarpment parallel to Middle Street. Key characteristics include the strong historic character of the limestone villages, but also noting evidence of declining landscape condition across intensively farmed areas. Key aims include the protection of key views and vistas; siting infrastructure away from visually prominent locations; protection of existing landscape features, such as restoration of hedgerows, stone walls, grassland and areas of pasture; and planting of woodland to enhance the scarp slope.

West Lindsey Landscape Character Assessment

- 12.6.64 The West Lindsey Landscape Character Assessment (1999) (Ref. 12-11) identifies four Broad Landscape Character Areas, which are subdivided into 14 more detailed Landscape Character Areas (LCA) (refer to **Figure 12-10** of this ES [EN010142/APP/6.3]). Each LCA includes a description with a summary of key characteristics, alongside notes on landscape sensitivity that include a list of areas considered to be 'most sensitive', although there is no specific evaluation of sensitivity. Principles for both landscape management and accommodating new development are also provided.
- 12.6.65 LCA 2 Trent Valley extends along the eastern side of the Study Area and includes the land around Marton in the Cable Route Corridor. Key characteristics include good hedgerows with hedgerow trees; the River Trent with adjacent washlands; historic parkland landscapes such as deer parks; main roads; and views of the power stations along the river. For LCA 2, the areas described as '*most sensitive parts of the landscape*' and with reference to the Scheme, are the River Trent washlands and low-lying land along the River Trent. 'Principles for Landscape Management' include the retention of hedgerows and hedgerow trees.
- 12.6.66 LCA 3 The Till Vale encompasses much of the Principal Site and the Cable Route Corridor, extending in a north-south oriented band across the District. Key characteristics of LCA 3 include large, flat open fields; low hawthorn hedges with some trees; small blocks of mixed woodland and shelterbelts; extensive network of rivers, dikes and ditches but with little visual presence; small, nucleated settlements on high ground with a sequence of views to landmark churches; ancient enclosure roads; and long views west to the power stations and east to the Cliff. Areas described as "*most sensitive parts of the landscape*", include:
- a. Rural roads and minor farm tracks bordered by wide verges and hedgerows;
 - b. Edges of villages which show evidence of medieval settlement;
 - c. The sequence of views to village churches along the B1241;
 - d. Avenues and lines of trees on the approaches to farms;
 - e. Views to Lincoln Cathedral;
 - f. Small woodlands - their edges vulnerable to the impact of agricultural machinery; and
 - g. Minor streams and their associated riparian vegetation.
- 12.6.67 For LCA 3, under 'Principles for Landscape Management' and with reference to the Scheme, the publication notes retention of buffer zones and new planting along rivers and streams; management of existing small farm woodlands, shelterbelts and trees along rural roads; and creation of buffer zones around woodland blocks. The section 'Principles for Accommodating Development' states the need to conserve key tracts of open farmland between villages and adjacent outlying farms.
- 12.6.68 LCA 4 The Cliff covers the very eastern edge of the Principal Site, running north-south along the prominent landscape feature. Key characteristics

include the straight, limestone-capped scarp slope; good hedgerow boundaries; spring-line villages at the foot of the scarp with historic character; and ponds and lakes along the spring-line. Areas described as “*most sensitive parts of the landscape*” include:

- a. Diverse landscape pattern on scarp slope;
- b. Wetlands: ponds and lakes at the springline;
- c. Trees and woodlands, at the foot of the escarpment;
- d. Village entrances: narrow and secluded, contrasting with the ridge-top road along the skyline (Middle Street);
- e. Historic buildings and parkland e.g. Glentworth;
- f. Village greens, mature trees, limestone walls and churches; and
- g. Pastures on western fringes of villages that provide contrast to surrounding arable land.

12.6.69 For LCA4, Principles for Landscape Management include management of trees and hedges to the margins and entrances to villages; scope for new hedgerow planting on the western edges of villages to reinforce the contrast in character between the Cliff landscape and that of open arable farmland to the west (framing rather than obscuring views to village churches and other buildings, or landscape features with historic interest); and reversion of arable land to grazing pasture. The section ‘Principles for Accommodating Development’ notes that new development and tree planting should be carefully sited and designed to avoid compromising the views associated with the design historic parkland landscapes that are characteristic of many of these villages.

Trent Vale Landscape Partnership

12.6.70 The Trent Vale Landscape Partnership (TVLP) was a three-year programme which ran from January 2010 to December 2012, covering the stretch of the River Trent between Newark and Gainsborough. Aims of the partnership, which included a number of organisations led by the Canal & River Trust, included the conservation and enhancement of natural features and public access routes with the Trent Vale area. An landscape character assessment was prepared, although this was not publicly available at the time of ES preparation.

Bassetlaw Landscape Character Assessment (2009)

12.6.71 Within Nottinghamshire, the eastern end of the Cable Route Corridor is covered by the Bassetlaw Landscape Character Assessment (Ref. 12-12), which forms part of the county-wide Nottinghamshire Landscape Character Assessment. The NCAs described above are used as the basis for the definition of a series of Regional Character Areas (RCA), of which the Cable Route Corridor is within the Trent Washlands RCA. Bassetlaw is then subdivided into Landscape Policy Zones or Policy Zones (PZ), each of which includes a description of key criteria that are used to define landscape condition and sensitivity, from which a ‘landscape Policy’ is derived. The following PZ are within the Cable Route Corridor (refer to **Figure 12-10** of this ES [EN010142/APP/6.3]).

12.6.72 Trent Washlands (TW) Policy Zone (PZ) 21 Cottam, Rampton and Church Laneham Village Farmlands covers the area to the west of Cottam power station and is typified by flat, large-scale arable fields with smaller scale pastoral fields around villages; and long-distance views dominated by power stations and pylons. Landscape condition is defined as 'good' and landscape sensitivity is 'moderate', resulting in a policy of 'Conserve and Reinforce'. Landscape Actions generally relate to the conservation and restoration of traditional hedge and field patterns, and conservation of mature hedge lines along tracks.

12.6.73 TW PZ 22: Cottam River Meadowlands, to the north of Cottam, is described as a flat landscape of arable and pasture fields; long-distance views dominated by the power station; and mature trees, wetland areas, scrub and aquatic vegetation close to the river. Landscape condition is defined as 'good' and landscape sensitivity as 'moderate', resulting in a policy of 'Conserve and Reinforce'. Landscape Actions include the conservation and reinforcement of traditional historic patterns of hedges, fields, grazing pasture and mature trees along the Trent.

12.6.74 TW PZ 48: Littleborough Village Meadowlands is a narrow area along the western side of the River Trent, characterised by flat improved and unimproved pasture; willows and scrubby riparian vegetation along watercourses; hedgerows and a grassy flood bank. Landscape condition is defined as 'good' and landscape sensitivity as 'moderate', resulting in a policy of 'Conserve'. Landscape Actions include the enhancement and restoration of ecological (including waterside) diversity, pastoral character, and meadowland hedgerows.

The Historic Landscape Characterisation Project for Lincolnshire (2011)

12.6.75 The Historic Landscape Characterisation Project for Lincolnshire (Ref. 12-4), identifies ten high-level Character Areas, which are sub-divided into Character Zones. For each Character Area, several 'Drivers for Change' are identified, with notes on 'historic landscape evolution' and 'legibility' provided for each Character Zone.

12.6.76 Regional Character Area 2 'The Northern Cliff' includes Character Zone NCL3, The Cliff Edge Airfields, which extends along the Cliff from Lincoln in the south to Hibaldstow in the north. Key characteristics of NCL3 include surviving long field boundaries (post-consolidation), with ancient enclosures characterised by small field sizes around historic settlements in the west. Legibility of the medieval landscape is evident in the survival of field patterns and long east- to west-oriented fields. Legibility of the post-medieval landscape is evident in the extensive survival of planned enclosure and isolated farmsteads across the character zone.

12.6.77 Regional Character Area 6 The Trent Valley includes Character Zone TVL1, The Northern Cliff Foothills, which covers the area between the River Trent and the foot of Lincoln Cliff. Key characteristics of TVL1 include wide views of large features in the landscape, especially the power stations and plumes; surviving ancient enclosures, including both small and large field sizes; and a strong survival of planned enclosure landscape, with modern fields

produced through 20th century consolidation and retaining much of the rectilinear (often east-west oriented) character of the underlying planned enclosures between the 17th and 19th centuries. Legibility of the medieval landscape is evident in the survival of the linear settlement pattern and long east to west oriented field boundaries. Legibility of the post-medieval period is evident in the good survival of planned enclosure and isolated farmsteads, giving the zone its dispersed character.

Neighbourhood Plan supporting documents

- 12.6.78 Character assessments, profiles and design guides are provided as part of the evidence base for Neighbourhood Plans, for which policies relevant to landscape and visual matters are provided in **Appendix 12-1** of this ES [EN010142/APP/6.2]. A summary of key findings, with relevance to the Principal Site, Cable Route Corridor and Study Area; and with respect to the nature of the development proposed, are provided below. These have particular importance when determining the baseline, as they provide evidence of the value placed on landscape features and views by the community that have been developed through consultation and objective analysis.
- 12.6.79 The Corringham Neighbourhood Plan (Ref. 12-13) is supported by the Corringham Character Assessment (Ref. 12-14), which includes reference to:
- a. Long distance views towards Lincoln Cliff;
 - b. Corringham windmill as a “*key local landmark*”;
 - c. Rural roads—with verges, ditches and hedgerows—being a “*strong, singular character*” and of value to pedestrians in the absence of the Parish’s dedicated PRow network; and
 - d. Key views “*across the rural landscape setting*” (referenced in Neighbourhood Plan Policy CPN6), including two from the eastern edge of the village.
- 12.6.80 The Glentworth Neighbourhood Plan (Ref. 12-5) is supported by the Neighbourhood Character Profile for Glentworth (Ref. 12-15), which includes reference to:
- a. Recreational walking, horse riding and cycling routes, including Middle Street, Kexby Road and Northlands Road, which are noted as ‘Green Infrastructure’, alongside areas of woodland and road verges;
 - b. ‘Gateways’ into the village, including the junction of Middle Street and Hanover Hill and associated woodland; and
 - c. Views considered to be of importance, including southwest from Middle Street to Glentworth Hall (View 8) with a “*superb view of this historic house in its parkland setting with distant views across the Trent in the background*”; and Views 9 and 10, also from Middle Street.
- 12.6.81 The Hemswell and Harpswell Neighbourhood Plan (Ref. 12-6) is supported by the Hemswell and Harpswell Character Assessment (Ref. 12-16), which describes 21 ‘key views’, each of which is supported by a photograph and

accompanying descriptive text. Those which are of particular relevance to the Scheme, through location and broad direction of views, include:

- a. View 10 and 11, looking east and southwest from the junction of the A631 Harpswell Lane and Hemswell Lane, towards Lincoln Cliff and Harpswell Grange respectively.
- b. View 12, looking west from the junction of the A631 Harpswell Lane and Hemswell Lane.
- c. View 13, looking east from the private access road to Harpswell Grange.
- d. View 17, looking east from Common Lane west of Harpswell, near to the moat on the site of the former Harpswell Hall.
- e. View 18, looking west from the bends on Common Lane west of Harpswell, where the description references the open arable landscape and, isolated farms (such as Hermitage Low Farm), and the “*distinct feature*” of Harpswell Wood at the western end of the parish.
- f. View 19, looking east from the bends in Common Lane west of Harpswell, noting the contrasting character of the flat Till Vale LCA (as described in the West Lindsey Landscape Character Assessment) and the rising, wooded Cliff LCA as one of the “*defining characteristics*” of the Parish where the two “*combine to create picturesque, uninterrupted views...towards the Lincoln Cliff and the settlements of Hemswell and Harpswell, which sit along the escarpment.*”
- g. View 20, looking west from the private farm access track off Middle Street above Harpswell from where “*expansive and far-reaching views can be obtained across the...Till Vale...[where] glimpses can be gained of elements of Harpswell’s roofscape, including local landmarks such as St Chad’s Church and Hermitage Lodge*”. The modern barn is noted as being “*less pleasing ...of a scale and bulk unseen elsewhere in the parish*” and that this “*...substantial structure disrupts the otherwise open character of the landscape and adversely impacts upon the quality of the view*”.

12.6.82 The document includes a character of profile of Harpswell, which notes the following of relevance to the Scheme:

- a. The history and location of the now demolished post medieval Harpswell Hall and Gardens (a Scheduled Monument and non-designated heritage assets) including elements—identified on a plan—that are “*...still visible, including a prospect mound, which would have been used to gain views across the landscape grounds and out toward the countryside beyond, and a water-filled moat, which was likely a key ornamental feature of the garden*”.
- b. The large area of ‘access land’ south of Hall Farm, described as “*...allowing locals and visitors alike to view the various earthworks that mark this historic landscape*”, with the area around the moat site noted as a ‘community green space that is “*unique and picturesque...[a] valued community asset and local attraction, which offers both local residents and visitors the opportunity for leisurely walks and relaxation in a handsome and distinct historic, rural landscape*”.

- c. Further to the access land described above, Figures 213 and 298 in the Hemswell and Harpswell Neighbourhood Plan denote ‘permissive paths’ provided by the same landowner that extend west from Hall Farm, offering additional outdoor leisure opportunities. These paths continue beyond the moat, and around the periphery of the field to the west, north of Common Lane.
- d. The 17th century Hall Farm is noted as a ‘key local landmark’, with a description of the associated gardens that are open to the public.
- e. St. Chad’s Church is described as the ‘*true landmark*’ of the village, where it may be possible to visualise the broad, tree-lined avenue that once aligned the church to the former Harpswell Hall and gardens. Views from the western side of Church Lane, across the historic landscape of the former Hall and to Hall Farm, are also noted.

12.6.83 A draft Neighbourhood Profile for Ingham (2020) (Ref. 12-17) notes a number of key views but none is towards the Site.

12.6.84 The Sturton by Stow and Stow Neighbourhood Plan (Ref. 12-18) is supported by the Sturton by Stow and Stow Neighbourhood Profile (2019) (Ref. 12-19), which includes:

- a. A summary of character areas as evidence for the Neighbourhood Plan, including Character Area 4 ‘Rural Stow’ that extends around Stow village and to the north, east and west of the Parish boundary;
- b. A plan with the site of a shrunken village in Normanby and denoting general views across open fields towards Lincoln Cliff, including a specific view west (TV14) from Normanby “*towards the Trent Valley...towards Cottam power station...*” and “*a fine spot to enjoy a beautiful sunset*”;
- c. A plan with “*beautiful views*” noted to the north of the road to Coates, across the Till valley;
- d. Frequent references to views towards Stow Minster, with a photograph from the bridleway (Wooden Pole Lane) provided, and the annotated plan indicating a view (IV19) due west of Stow;
- e. North of East Farm, highlighted on the plan near the Padmoor Drain, where the accompanying description notes that “*...there is part of the medieval Parish boundary hedge, rich in species such as medieval plum [where] cuckoos and nightingales can be heard singing*”; and
- f. Road verges with wildflowers and the recreational value of local roads for walkers, runners, horse riders and cyclists, including the unclassified road from Normanby to Coates, although the B1241 is described as “*very busy*”.

12.6.85 The Sturton by Stow and Stow Neighbourhood Plan Protected Views Assessment (Ref. 12-20) describes seventeen important views, alongside the evidence and rationale for their inclusion in the Protected Views Policy (Ref. 12-22) within the Neighbourhood Plan. Although several views are identified in the precursor Character Area descriptions above, none is taken forward into this document. No protected views are towards the Scheme.

12.6.86 The Treswell and Cottam Neighbourhood Plan (Ref. 12-23) is supported by the Treswell with Cottam Character Assessment (2018) (Ref. 12-24) and includes reference to:

- a. 'Important views' across the open space at the eastern entrance to the village, and eastwards from Town Street;
- b. An 'Important view' towards the Grade II listed Church of Holy Trinity, from Overcoat Lane;
- c. Overcoat Lane and Wells Lane described as "*pedestrian links*", and the former (Restricted Byway RB4) noted as "*providing pedestrian access to Cottam's immediate western landscape setting*".

12.6.87 The open space noted above is described as "particularly picturesque green backed by mature trees...one of the defining characteristics of this end of the village" which "...contributes greatly to the character and quality of this gateway...as do the mature deciduous trees that overlook it".

12.6.88 The Rampton and Woodbeck Neighbourhood Plan (Ref. 12-25Ref. 12-26) is supported by the Rampton and Woodbeck Character Assessment (Ref. 12-26) which includes reference to the visual impact of Cottam Power Station and associated pylons and overhead lines, as well as the importance of views east from the village of Rampton along the straight alignment of Torksey Ferry Road towards the River Trent. The latter is also described as having the "*...appearance and ambience of a quiet rural lane with rural character*", particularly where there are unenclosed grass verges further east.

12.6.89 The Assessment also identified a number of 'key views' from Rampton across the rural landscape setting, including three from the east of the village: on Torksey Ferry Road; and from the footpaths (PRoW) Rampton FP4 and Rampton FP9.

Conservation Area Appraisals

12.6.90 The following Conservation Area Appraisals were reviewed. Information that may be relevant to landscape and visual matters, including where this may inform the value of an area or particular view, is noted below. A full review of Conservation Area Appraisals is provided in **Chapter 8: Cultural Heritage** of this ES [EN010142/APP/6.1].

12.6.91 The Hemswell Conservation Area Appraisal (1985) (Ref. 12-27) includes a plan showing significant trees or groups of trees and describes attractive landscapes in relation to the setting some of the buildings, but there is no reference to elements such as key views or vistas.

12.6.92 The Glentworth Conservation Area Appraisal (1993) (Ref. 12-28) notes the following of relevance:

- a. The Grade II* listed Glentworth Hall is seen clearly from Middle Street, along the Cliff from the north, although much of the village itself is hidden by trees when viewed from this route;

- b. The larger spaces formed by fields, trees, hedges and scattered buildings beyond the village fringe form the setting of Glentworth village and are an important contributory element to the Conservation Area; and
- c. The position of Glentworth Hall is a key feature, especially from the north; and the collection of important buildings, trees, hedges, walls, open fields and land, together with the informal arrangement of open spaces, provide Glentworth with a strong identity.

12.6.93 The Fillingham Conservation Area Appraisal (1993) (Ref. 12-29) notes the visual relationship between Fillingham Castle and the village; the importance of topography and views of the village from the wider landscape, including Middle Street; and views of the castle from the lake. A map is provided, but this does not denote any specific views.

12.6.94 The Ingham Conservation Area Appraisal (1971) (Ref. 12-30) does not note any key views associated with the designation.

12.6.95 The Springthorpe Conservation Area Appraisal (1985) (Ref. 12-31) notes that a feature of both the village and the area is the “*fine hedgerows*”. No references to views into or out of the village, or other references to the wider landscape, are provided.

Local Landscape Character Areas defined by the Applicant

12.6.96 The Site and Study Area are covered by a range of published assessments, as outlined above. These vary in age and have been prepared at range of scales and to different methodologies. The West Lindsey LCA was published nearly 25 years ago. To ensure a proportionate, consistent, and balanced approach when assessing landscape impacts, a Scheme-specific baseline local landscape assessment has been undertaken. This approach was also requested by the LCC Landscape Officer.

12.6.97 All landscape effects arising from the Scheme are assessed against Local Landscape Character Areas (LLCAs), which have been defined by the Applicant. The LLCA are broadly based on published assessments and baseline information detailed above, including planning policies and evidence base documents, alongside site surveys. The LLCA are shown on **Figure 12-11** of this ES [EN010142/APP/6.3], which also shows the West Lindsey Landscape Character Assessment and Bassetlaw Landscape Character Assessment for reference.

12.6.98 The extent of the LLCA have been defined on the basis of expected significant landscape effects. Those that arise outside the Site will be derived from indirect impacts on perceptual qualities such as tranquillity and important views, where these are a key characteristic that informs LLCA value. Based on the extent of visibility defined by initial site surveys and professional judgement, the LLCA extend to a minimum of approximately 2km around the Principal Site and around 1km from the Cable Route Corridor.

12.6.99 The LLCA are grouped into broad categories that exhibit shared characteristics and broadly reflect published assessments, as follows:

- a. LLCA 1a Limestone Dip Slopes;
- b. LLCA 2a to 2e: Lincoln Cliff Scarp and Spring-line Villages;
- c. LLCA 3a to 3c: Till Vale;
- d. LLCA 4 Marton Ridge; and
- e. LLCA 5a to 5c Trent Valley.

12.6.100 For each LLCA, a list of key characteristics has been developed, informed by An Approach to Landscape Character Assessment (Natural England) (Ref. 12-33) and consideration of factors and indicators used to determine landscape value, based on those provided in *Assessing Landscape Value Outside National Designations* (TGN 02/21) (Ref. 12-33). Full details are provided in **Appendix 12-3** of this ES [EN010142/APP/6.2]), with brief summaries for each LLCA outlined in **Table 12-4**.

Table 12-4: Summary of key characteristics for LLCA

LLCA	Key characteristics	Overall landscape value
LLCA 1a Open Limestone Dip Slopes	<p>Gentle east-facing dip slope of Lincoln Cliff.</p> <p>Mainly agricultural, with a simple pattern of planned enclosure, medium-scale rectilinear; hedgerows often absent.</p> <p>B1398 Middle Street along the highest point of the dip slope.</p> <p>Dominant presence of the former RAF Hemswell, with a largely industrial character, incongruous in the otherwise agricultural context.</p> <p>Hemswell Cliff is a focus for antique businesses and hosts a popular Sunday market.</p> <p>Built form otherwise limited to occasional farmsteads and scattered residences along Middle Street.</p> <p>Limited access through occasional rural roads, although the A631 runs east-west to the north of the area.</p>	Low
LLCA 2a Lincoln Cliff – Hemswell	<p>Topography dominated by the steep, west-facing scarp slope forming part of the regionally prominent Lincoln Cliff.</p> <p>Local Policy AGLV designation occupies much of the LLCA.</p> <p>Spring line village of Hemswell, clustered around a historic core with peripheral, modern residential development including large plots along the Cliff.</p>	Medium

LLCA	Key characteristics	Overall landscape value
LLCA 2b Lincoln Cliff - Harpswell	<p>Designated heritage assets, including Grade II* Church of All Saints and Conservation Area.</p> <p>Mature trees contrasting with the more open surrounding farmland.</p> <p>Smaller-scale, mainly pastoral fields reflect a pre-enclosure field pattern, often bounded by dense hedges that limit wider views, especially west of the village.</p> <p>Fast moving traffic along Middle Street but rural and residential roads connecting this and the A631 to the village.</p> <p>Key views, routes and open spaces identified through the Hemswell and Harpswell Neighbourhood Plan and supporting documents.</p>	High

LLCA	Key characteristics	Overall landscape value
	<p>Key views, routes and open spaces identified through the Hemswell and Harpswell Neighbourhood Plan and supporting documents.</p>	
<p>LLCA 2c Lincoln Cliff – Open Farmland</p>	<p>Topography dominated by the relatively steep, west-facing scarp slope.</p> <p>Local Policy AGLV designation occupies much of the LLCA in the Study Area.</p> <p>Expansive, panoramic views to the west, extending across the Trent Valley.</p> <p>Dominantly intensive arable farmland, with medium-sized planned enclosure rectilinear fields, where boundary features are often absent or comprise gappy hedges.</p> <p>Built form generally limited, with a single property ‘Millfield’, north of Harpswell; also grain silos at Homeyard Farm and a large barn south of Harpswell.</p> <p>B1398 Middle Street along the Cliff, limiting tranquillity through relatively fast-moving vehicles.</p> <p>No designated heritage assets.</p> <p>Limited public rights of way, mainly between Harpswell and Hemswell. Middle Street is not attractive to leisure cycling and walking due to the lack of a footway and fast-moving traffic.</p> <p>Very limited woodland cover or trees, other than locally along the edge of Middle Street.</p>	<p>Medium</p>
<p>LLCA 2d Lincoln Cliff – Glentworth</p>	<p>Topography dominated by the relatively steep, west-facing scarp slope with more gentle topography towards the west.</p> <p>Local Policy AGLV designation, which occupies much of the LLCA in the Study Area.</p> <p>Spring line village of Glentworth, largely clustered around a historic core towards the base of the cliff, with more modern development to the periphery.</p> <p>Listing buildings including Grade II* listed Church of St. Michael and Grade II* Glentworth Hall, the latter in a more expansive, open setting with views to the west.</p> <p>Mature trees within Glentworth add character and contrast with the more open surrounding farmland. These, along with woodland blocks,</p>	<p>Medium</p>

LLCA	Key characteristics	Overall landscape value
	<p>provide some screening to views in and out of the village.</p> <p>A limited number of smaller-scale, mainly pastoral fields, mainly within or immediately adjacent to the village.</p> <p>Short sections of footpath within the village, although PRow into the wider countryside are limited.</p> <p>Key views, routes and green infrastructure identified through the Glentworth Neighbourhood Plan and supporting documents.</p>	
LLCA 2e Lincoln Cliff – Fillingham	<p>Topography dominated by the relatively steep, west-facing scarp slope with more gentle topography towards the west.</p> <p>Local Policy AGLV designation, which occupies much of the LLCA in the Study Area.</p> <p>Spring line village of Fillingham, largely clustered around a historic core towards the base of the cliff, with more modern development to the periphery, particularly the southern edge.</p> <p>Grade II* listed Church of St. Andrew, four Grade II listed buildings and conservation area within the village.</p> <p>Presence of Fillingham Lake, linked to the construction of Fillingham Castle (with associated Registered Park and Garden) on the top of the Cliff, with a legible, designed landscape relationship between the two. The Lake represents an attractive, unexpected feature that provides visual, historic and ecological interest.</p> <p>Mature trees within the village and around the lake add character and contrast with the more open surrounding farmland.</p>	High
LLCA 3a – Till Vale Open Farmland	<p>Low-lying, often superficially flat topography with gentle undulations providing interest to the southeast, around Glentworth.</p> <p>Medium to large scale rectilinear fields reflecting the post-enclosure landscape away from historic villages, with generally low-cut hedgerows, sometimes gappy or absent. Land use is mainly arable, reflecting a dominant</p>	Low

LLCA	Key characteristics	Overall landscape value
	<p>character of intensive farming, including biomass such as maize.</p> <p>Very few biodiversity designations, LWS roadside verges.</p> <p>Occasional east-west oriented roads and tracks, locally with dense, high hedges and wide verges, that reflect former enclosure routes from villages to adjacent low-lying land.</p> <p>Small watercourses including the River Till but often straightened and/or as drainage ditches, with little visual influence on the landscape and limited biodiversity value.</p> <p>Built form generally limited to dispersed, isolated farmsteads and occasional residential buildings, often with associated large barns and outbuildings.</p> <p>A near-absence of designated heritage assets, with the exception of the Grade II listed Corringham Windmill on the A631. Views are locally available towards nearby church towers and spires, such as Stow Minster and St. Chad's at Harpswell.</p> <p>Limited woodland: mainly woodland blocks or shelter belts, largely focused on Big Wood; hedgerow trees are generally limited.</p> <p>Busy A631 as the main communication route which reduces tranquillity through noise and movement; also the A1500 and the Gainsborough to Lincoln railway. Away from these routes, routes are limited to unclassified, single-track roads.</p> <p>A notable lack of PRow, which limits amenity and recreational value; such routes are restricted to bridleways south of Kexby Road.</p> <p>A largely open, expansive character, dominated by long-range views towards the Lincoln Cliff in the east and with power stations at Cottam and West Burton in the west.</p> <p>Other man-made elements include pylons and overhead lines, the incongruous 'nodding donkeys' west of Glentworth; and an existing solar farm west of Stow.</p>	
LLCA 3b – Till Vale -	Strong influence of the former Royal Air Force (RAF) airfield, opened in 1944 as a location for	Very Low

LLCA	Key characteristics	Overall landscape value
Sturgate airfield	<p>Bomber Command, but with operational use curtailed by the rapid end to the War.</p> <p>The truncated airfield used by private clubs with a single operational runway and facilities including the original control tower as a club house.</p> <p>Relic areas of runway and hardstanding used for storage of agricultural materials and aggregates, alongside a waste processing centre accessed from Kexby Road; with another area used by Travelling Showpeople for equipment storage.</p> <p>Rural roads diverted around the airfield during construction, resulting in a functional, engineered appearance.</p> <p>Areas of arable land reclaimed from sections of the airfield, but with a notable absence of tree or hedge planting resulting in a very open, featureless character, that accentuates the visibility of detracting storage features.</p> <p>Occasional movement of aircraft, alongside vehicles accessing the airfield. Tranquility is also reduced by waste lorries travelling to the disposal site.</p>	
LLCA 3c – Till Vale Villages	<p>Generally slightly higher elevation compared to the adjacent LLCA 3a with some lower-lying areas, e.g. along Fillingham Lane.</p> <p>More elevated, better-draining ground historically giving rise to settlement, including villages such as Corringham, Springthorpe, Heapham, Willingham by Stow and Stow.</p> <p>Villages centred around historic cores, often with dominant churches.</p> <p>Numerous designated heritage assets, including Grade I listed churches at Corringham, Springthorpe, Heapham and Stow (Stow Minster). Deserted or shrunken villages such as Coates.</p> <p>Typically medium to small scale fields reflecting more ancient field patterns that contrast with the less overtly rectilinear planned enclosure of LLCA3a farmland and with more frequent hedgerow trees, and hedges that are taller, denser, and often in better condition.</p>	Medium

LLCA	Key characteristics	Overall landscape value
	<p>East-west oriented road and tracks with dense, high hedges and wide verges reflect former enclosure routes from villages to adjacent low-lying land.</p> <p>Small watercourses (including the River Till), sometimes straightened as drainage ditches, but often exhibiting a more sinuous character that reflects lack of intervention.</p> <p>Mature trees and small woodland blocks associated with villages, adding character and often screening wider views, alongside a higher number of hedgerow trees compared to adjacent LLCA3a.</p> <p>Network of rural roads linking villages, varying from the B1241 to single-track, unclassified routes that exhibit a more rural character. Some of the latter, where close to settlements, offer informal recreational value for walking and cycling, especially where traffic levels are low and PRow limited.</p> <p>Scattered PRow, mainly focused on settlements, providing amenity and recreational value to residents, allow opportunities to experience more expansive rural views.</p> <p>Key views, routes and green infrastructure identified through the Corringham and Sturton by Stow and Stow Neighbourhood Plans and supporting documents.</p> <p>Conservation Area in Springthorpe.</p> <p>Fewer detracting elements than in the adjacent LLCA3a, with only short section of 33kv overhead lines around Corringham.</p>	
LLCA4 – Marton Ridge	<p>Gentle north-south ridges parallel to the River Trent locally steep west-facing slopes around Marton. Some areas of low ground south of Marton, but topographically separate from the main Trent flood plain.</p> <p>The village of Marton centred on historic communication routes of the A1500 (a former Roman Road) and A156. Older core with modern residential ribbon development on roads towards the Trent and to the east.</p> <p>Designated heritage assets, including the Grade I listed Church of St. Margaret in Marton.</p>	Low

LLCA	Key characteristics	Overall landscape value
	<p>Rectilinear, medium-scale fields across the more rural areas with boundaries of gappy hedges or absent; but smaller scale fields and paddocks with taller, denser hedges and hedgerows trees around Marton, reducing views out of the village. Woodland blocks and scattered trees are prevalent along the west-facing ridges, alongside mature trees within the village that provide character, but the tree cover elsewhere is limited.</p> <p>North-south A156 and A1500 are the main road routes, although traffic levels are lower than the A631 to the north. Rural lanes connect with Trent Port and Willingham in the east.</p> <p>A small network of PRow offers recreational amenity around Marton, including a to the south that runs alongside a former field that appears to be reverting through pioneer woodland to scrub.</p> <p>Open views across the Trent in the west (including Cottam power station) and the Till Vale in the east.</p> <p>400 kV and 132 kV pylons and overhead lines to the south of Marton.</p>	
<p>LLCA5 – 5a Trent Valley – Meadowlands</p>	<p>Flat topography parallel to the River Trent, contained by flood banks and natural river terraces.</p> <p>Powerful presence of the River Trent, which has shaped much of the surrounding landscape, historic and social development; and is a dominant feature used by both leisure and commercial traffic.</p> <p>Mainly medium to small, rectilinear fields enclosing improved and unimproved pasture, contrasting with larger, predominantly arable fields on the floodplain to the west (within LLCA 5b) and ridge to the east (LLCA 4).</p> <p>Areas of riparian vegetation, including woodland such and scrub that are designated as through Local Plan policies.</p> <p>Field boundaries and the flood bank are evidence of historic field patterns and drainage.</p> <p>A notable absence of built form, other than the Grade II* listed Torksey viaduct.</p>	<p>Medium</p>

LLCA	Key characteristics	Overall landscape value
	<p>PRoW both along the Trent and connecting to nearby villages and across the former Torksey Viaduct; signed long distance Trent Valley Way footpath along the left bank.</p> <p>Overhead lines and pylons with a dominant visual influence of other pylons and the Cottam Power Station in the adjacent LLCA.</p>	
LLCA5 – 5b Trent Valley – Washlands	<p>Flat topography, dominantly arable and intensive farmland forming much of the floodplain on the west (left) bank of the Trent valley.</p> <p>Largely geometric field pattern with some smaller-scale fields around villages; boundaries generally in good condition with scattered hedgerow trees, although where absent fields are often bounded by drainage ditches.</p> <p>Woodland cover is limited.</p> <p>Built form focused on villages such as Cottam and Rampton, with historic cores and some modern, peripheral development; alongside scattered farmsteads and occasional isolated properties in the wider farmland.</p> <p>Designated heritage assets within settlements, including the Grade I Church of All Saints in Rampton.</p> <p>Relatively dense network of PRoW, often linking villages and including bridleways and byways, providing relatively accessible links to the surrounding countryside.</p> <p>Key views, routes, green spaces and green infrastructure identified through Neighbourhood Plans and supporting documents.</p> <p>Localised tranquility along rural lanes and footpaths, but some influence of traffic to Cottam Power Station.</p> <p>Visual dominance of Cottam Power Station, alongside overhead power lines that cross the flood plain, exacerbated by the open landscape outside villages.</p>	<p>Low</p>
LLCA5 – 5c Trent Valley – Cottam Power Station	<p>Dominant presence of Cottam Power station, particularly the eight redundant cooling towers; the more recent gas-fired plant; and associated infrastructure such as the overhead power lines, substation, railway and sidings; and coal storage areas.</p>	<p>Very Low</p>

LLCA	Key characteristics	Overall landscape value
	<p>Areas of former coal storage and lagoons, in various stage of colonisation and/or restoration to grassland, woodland and scrub. These areas have biodiversity value reflected in the LWS designation, in contrast with the intensively farmed fields in LLCA 5c.</p> <p>Screen planting around the plant, particular to limit views from Cottam village to the north.</p> <p>The power station landscape was designed by Kenneth and Patricia Booth and included bunds and a viewing platform (Ref. 12-35).</p>	

Visual Amenity Baseline

12.6.101 Visual amenity is defined in GLVIA (Ref. 12-1) as:

12.6.102 “the overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.”

12.6.103 The design of the Scheme has been guided by constraints mapping to reduce visual impacts on sensitive visual receptors (reference **Figure 12-1 and Figure 12-2** of this ES [EN010142/APP/6.3]). Notwithstanding this, the ZTVs indicate that theoretical visibility be available for a range of visual receptors.

Range of People and Places Potentially Affected: Principal Site

Views from Residential Locations

12.6.104 There are no residential properties within the Order limits, but several are located close to the Principal Site boundary. Potential views from these properties were identified on the initial site constraints plans (**Figure 12-2** of this ES [EN010142/APP/6.3]), based on aerial photography, site surveys and house/garden visits. Both these properties and those within settlements that may also theoretically receive views of the Principal Site include, but are not limited to:

- a. Properties in the hamlet of Yawthorpe.
- b. Properties along the north side of the A631, including Moorlands, Hemswell Grange and Grange Cottage.
- c. Properties at Harpswell Hill Mobile Home Park.
- d. Properties along the south side of the A631, including Harpswell Low Farm and Harpswell Grange.
- e. Properties to the southern edge of Hemswell.

- f. Properties along Lincoln Cliff, around Hemswell and Harpswell, including Millfield and Hill Top Lodge.
- g. Properties in Harpswell, including Hall Farm and Hermitage Farm.
- h. Properties to the northern and western fringe of Glentworth including Northlands Cottages, along Northlands Road, Glentworth Hall and adjacent buildings.
- i. Properties along Middle Street, around Glentworth Hall Farm.
- j. Properties on High Street, above Fillingham village.
- k. Properties along Common Lane, including Hermitage Low Farm, Billyards Farm, Manor Farm, Heapham Cliff, Grange Farm and South View.
- l. Properties on Kexby Road, including Westlands Farm, Spitals Farm, Low Farm, Glentworth Grange, Grange Court and nos. 1 and 2 Grange Cottages.
- m. Isolated properties to the southwest of the Site, along Cow Lane, including Low Field Farm and Grove Farm;
- n. Properties to the eastern edge of Heapham and Sturgate.
- o. Properties to the eastern edge of Springthorpe.
- p. Church Farm, nos. 33 and 34 (Grange Cottages) and Springthorpe Grange, on School Lane.
- q. Properties to the eastern edge of Corringham.

Views from Public Rights of Way (Principal Site)

12.6.105 PRow within and immediately adjacent to the Principal Site are shown on **Figure 12-7** of this ES [EN010142/APP/6.3]. Based on the ZTV and site observations, those that may experience theoretical visibility include, but are not limited to:

12.6.106 Footpath Wltn/14/1, on Lincoln Cliff, south of Willoughton;

- a. Footpaths Hems16/1, Hems19/2, Hems787/1 and Hems788/1 within and south of Hemswell;
- b. Bridleway ~~Fil~~Gltw/85/1, from Kexby Road to Willingham Road, which is the only PRow within the Principal Site;
- c. Bridleway Gltw/88/1 from Glentworth to Fillingham;
- d. Footpaths Ingh/17/2, Ingh/20/3 and Ingh21/2, on Lincoln Cliff above Ingham;
- e. Footpaths Heap/56/2, Heap57/2 and Heap57/3 around Heapham and Sturgate; and
- f. Restricted byway (Heap/1170/1) (recently adopted), east of Sturgate.

12.6.107 Further to the above, views may also be available for receptors using a temporary, voluntary permissive path east of Sturgate, linked to Kirton Gate Lane; permissive access land south of Hall Farm in Harpswell; and

permissive paths, associated with the latter, around the former medieval moat and adjacent fields at Hall Farm.

12.6.108 An application to claim a section bridleway (PRoW) between Harpswell and Glentworth is in progress at the time of ES preparation. This will reinstate a missing section of the historic lower route that runs parallel to Middle Street. This has been considered in the Future Baseline (Paragraph 12.6.129).

Views from Roads (Principal Site)

12.6.109 Based on site observations, receptors on the following roads are likely to receive appreciable views of the Principal Site, where they run either through or immediately adjacent to the Principal Site boundary:

- a. A631 Harpswell Road, between Corringham and Harpswell;
- b. Hemswell Lane, between the A631 and Hemswell;
- c. The unclassified road between the A631 and Willoughton;
- d. B1398 Middle Street;
- e. School Lane, east of Springthorpe;
- f. Common Lane, between Sturgate and Harpswell; and
- g. Kexby Road and Cow Lane, between Upton and Glentworth.

12.6.110 Some of the above rural roads are used for recreational activity, such as horse riding, walking, running and cycling, particularly given the absence of PRoW across the Principal Site and immediate surrounds. This is noted in Neighbourhood Plans and associated evidence base documents, as well as site observations.

12.6.111 Views may also be available for visitors to the studio workshops, small artisan businesses and open garden at Hall Farm in Harpswell; and for receptors in aircraft arriving and departing from the private Sturgate airfield or using the airfield facilities.

12.6.112 With reference to visual impacts arising from the Principal Site, a total of 29 representative viewpoint locations have been selected to form the basis of the visual assessment. These include some of the 13 that were identified at the PEI Report stage, which were in turn broadly based on those put forward at the EIA scoping stage.

12.6.113 The selection of the 29 viewpoints, including those that have been taken forward as visualisations, has been undertaken through consultation with the LCC Landscape Officer. Viewpoints have been selected to demonstrate different receptors, distances from the Principal Site, the influence of existing vegetation, potential mitigation planting and likely effects.

12.6.114 This photography forms the basis of the representative viewpoints and visual assessment. With reference to Landscape Institute (2019) Technical Guidance Note 06/19: Visual Representation of Development Proposals (Ref. 12-34), these are displayed in **Figure 12-13** for 'Type 1' (representative views) and **Figure 12-14** for 'Type 3' (photomontages) of this ES [EN010142/APP/6.2]. A methodology for the photography and production of

the visualisations is provided in **Appendix 12-2** of this ES **[EN010142/APP/6.2]**.

12.6.115 **Table 12-5** provides a summary of the representative viewpoints with respect to the Principal Site, the locations of which are shown on Figure 12-12 of this ES **[EN010142/APP/6.3]**. They are provided as follows, with reference to LI Technical Advice Note (TGN) 06/19 Visual Representation of Development Proposals (Ref. 12-34):

- a. 'Type 1' baseline representative views: **Figure 12-13** of this ES **[EN010142/APP/6.3]**.
- b. 'Type 3' visualisations, also included wirelines of cumulative schemes: **Figure 12-14** of this ES **[EN010142/APP/6.3]**.

12.6.116 More comprehensive baseline viewpoint descriptions, which explain the basis for how value is derived (based on the methodology provided in **Appendix 12-2** of this ES **[EN010142/APP/6.2]**) are provided in **Appendix 12-4** of this ES **[EN010142/APP/6.2]**.

Table 12-5: Summary baseline viewpoint descriptions and visual value at representative viewpoints (Principal Site)

Viewpoint number	Location and distance to nearest boundary of Principal Site	Summary baseline description, receptors and visual value
1	Access track to Harpswell Grange, off A631 Within Order limits (Principal Site) 25m AOD Figure 12-13a of this ES [EN010142/APP/6.3]	A view east towards the junction of the A631 and the unclassified Hemswell Road, representative of receptors travelling on the A631 immediately to the north. This view broadly corresponds with Views 10, 11 and 12 in the Hemswell and Harpswell Neighbourhood Plan, referenced in Policy 5. Overall, it is considered to be of low value; a relatively ordinary view of farmland which, although allowing an appreciation of the topography of Lincoln Cliff, is unlikely to be visited specifically to experience the views available.
2a	Common Lane, east of Hermitage Low Farm (looking east) Within Order limits (Principal Site) 27m AOD Figure 12-14a of this ES [EN010142/APP/6.3]	A view looking east towards Harpswell and Lincoln Cliff, representative of road receptors using the unclassified, single track road from Harpswell to Heapham. This view is also slightly north of View 19 in the Hemswell and Harpswell Neighbourhood Plan, referenced in Policy 5. Overall, it is considered to be of medium value; it may be

Viewpoint number	Location and distance to nearest boundary of Principal Site	Summary baseline description, receptors and visual value
		appreciated locally for the views available.
2b	<p>Common Lane, east of Hermitage Low Farm (looking west) Within Order limits (Principal Site) 27m AOD Figure 12-14b of this ES [EN010142/APP/6.3]</p>	<p>A view looking west towards Hermitage Low Farm (from the same location as viewpoint 2a) and representative of road receptors using the unclassified, single track road from Harpswell to Heapham. This view is also slightly north of View 18 in the Hemswell and Harpswell Neighbourhood Plan, referenced in Policy 5. Although equivalent to a 'key view' in the Hemswell and Harpswell Neighbourhood Plan, the view is largely of intensive farmland, with commonplace elements of limited interest other than the long-range views. Overall, it is considered to be of low value; an ordinary view of farmland that is accessible through a rural route, but of limited quality and where other locations (e.g. around Harpswell Hall) are likely to be visited in preference.</p>
3	<p>Local Green Space, Harpswell Hall Farm 300m to Order limits (Principal Site) 40m AOD Figure 12-13b of this ES [EN010142/APP/6.3]</p>	<p>A view from the field (Local Green Space, as designated in the Neighbourhood Plan) within centre of Harpswell that benefits from permissive open access, alongside a PRow that runs across the centre of the view. It is representative of recreational receptors using the footpath, publicly accessible land and permissive paths; receptors on the adjacent lane, and adjacent residential receptors. The view reflects both the presence and historic landscape relationship between the Scheduled Monument (Harpswell Hall) and the Grade I church; and is easily accessible to both residents and visitors. It is within the AGLV designation, which extends partly across the field. Overall, it is considered to be of high value.</p>

Viewpoint number	Location and distance to nearest boundary of Principal Site	Summary baseline description, receptors and visual value
4	<p>B1398 Middle Street, above Harpswell Within Order limits (Principal Site) 68m AOD Figure 12-14c of this ES [EN010142/APP/6.3]</p>	<p>A view located at a private farm track entrance on Middle Street, which runs along Lincoln Cliff. It is representative of receptors using the B1398. The view typifies that from the Cliff which is protected by the local Plan AGLV designation; the views are extensively referenced in published character assessments. However, traffic on Middle Street is fast-moving and the route is unlikely to be attractive to recreational users such as walkers or leisure cyclists; and there is no public parking space. Overall, it is considered to be of medium value: it is appreciated locally for the views available.</p>
5	<p>Kexby Road, west of Glentworth Approx 880m from Order limits (Principal Site) 29m AOD Figure 12-13c of this ES [EN010142/APP/6.3]</p>	<p>A view located on the unclassified single-track road on the edge of Glentworth village. Receptors will be travelling along the road, in vehicles or for recreational purposes, including walking and cycling. Overall, it is considered to be of medium value: a relatively ordinary view of farmland but one that is accessible through a rural route (which is noted in the Neighbourhood Plan) and likely to be appreciated by residents in an area where recreational access to the countryside is limited.</p>
6	<p>Bridleway (Gltw/85/1) south of Glentworth Approx. 1.2km to Order limits (Principal Site). 36m AOD Figure 12-13d of this ES [EN010142/APP/6.3]</p>	<p>A view located on a bridleway linking Glentworth and Fillingham, around 500m south of the former, running along a tarmac access road to the adjacent 'nodding donkeys' of the oil production site. Receptors will be recreational users of the PRoW. The view is considered to be of low value; an ordinary view of farmland that is accessible through a bridleway, but with no recognised quality and/or is unlikely to be visited specifically to experience the views available.</p>

Viewpoint number	Location and distance to nearest boundary of Principal Site	Summary baseline description, receptors and visual value
7	<p>B1398 Middle Street, Glentworth Cliff Farm Approx 1.2km to Order limits (Principal Site) 66m AOD Figure 12-14d of this ES [EN010142/APP/6.3]</p>	<p>A view located at the entrance to Glentworth Cliff Farm and adjacent to a row of seven properties on the east side of Middle Street, which runs along Lincoln Cliff. It is representative of residential receptors and receptors using the B1398, including pedestrians on a section of pavement that provides a safe walking route to Hanover Hill and Glentworth. The view typifies that of the Cliff, is protected through the Local Plan AGLV designation and is extensively referenced in published character assessments, although traffic on Middle Street is fast-moving and there is limited recreational value at this location. Overall, it is considered to be of medium value; it is likely to be appreciated locally for the views available.</p>
8	<p>B1398 Middle Street, above Fillingham Approx. 2.3km to Order limits (Principal Site). 61m AOD Figure 12-13e of this ES [EN010142/APP/6.3]</p>	<p>A view from the east side of Middle Street, which runs along Lincoln Cliff, representative of receptors in vehicles; residential receptors at the nearby Hillside Cottages; and theoretical visibility from Fillingham Castle, a Grade I registered building, around 160m east. The view typifies that of the Cliff, is subject to the AGLV designation and is extensively referenced in published character assessments, although traffic on Middle Street is fast-moving and there is limited recreational value at this location. The area immediately to the east is a Grade II designated park and garden, providing the setting to the Grade I Castle and designed to take advantage of the view. Overall, the value is considered to be high.</p>
9	<p>Kexby Road, west of Glentworth Grange: junction with bridleway Gltw/85/1</p>	<p>A view located on the north side of the rural Kexby Road, between residential properties, the nearest being Glentworth Grange to the east. It is representative of receptors on</p>

Viewpoint number	Location and distance to nearest boundary of Principal Site	Summary baseline description, receptors and visual value
	<p>Within Order limits (Principal Site) 25m AOD Figure 12-14e of this ES [EN010142/APP/6.3]</p>	<p>Kexby Road, including recreational receptors; and recreational receptors using the adjacent bridleway, which is the only PRoW within the Principal Site. The AGLV to the Cliff is visible and the panoramic aspect provides an opportunity to appreciate the wider landscape and topography, including by an appreciable group of residents and users of PRoW that are limited in the area. Overall it is considered to be of medium value.</p>
10	<p>Kirton Gate Lane (by-way) Approx. 500m from the Principal Site. 20m AOD Figure 12-13 of this ES [EN010142/APP/6.3]</p>	<p>A view from the recently adopted byway (PRoW) along a farm track, with a further 'temporary permissive bridleway' forming a circular recreational route around field boundaries east of Sturgate. Receptors will be users of these routes, including walkers, cyclists and horse riders; a memorial bench (facing west, away from the Principal Site) is located nearby. Despite the view being relatively simple and including commonplace elements, it evidently has value to the community and the dense hedges and mature trees along the track offer legibility of historic agricultural use. Overall, it is considered to be of medium value.</p>
11	<p>Bratt Field Middle Road, Sturgate Approx. 690m to Order limits (Principal Site). 19m AOD Figure 12-14f of this ES [EN010142/APP/6.3]</p>	<p>A view looking from a farm track that forms part of a 'temporary permissive bridleway' that forms part of a recreational circuit east of Sturgate. Receptors will include users of the bridleway and in the adjacent property. The route provides access to rural views in an area where PRoW and off-road routes are very limited. Despite the view being relatively simple and including commonplace elements, it is likely to have value to the community and overall is considered to be of medium value.</p>

Viewpoint number	Location and distance to nearest boundary of Principal Site	Summary baseline description, receptors and visual value
12	<p>School Lane, Springthorpe Approx. 620m to Order limits (Principal Site) 22m AOD Figure 12-13g of this ES [EN010142/APP/6.3]</p>	<p>A view looking east from the edge of Springthorpe village, along the unclassified, single-track School Lane. Receptors will be users of the road, including in vehicles, but also recreational users who may use the route in the absence of PRow locally. It is also representative of residential views from the edge of Springthorpe, although individual properties are subject to varied levels of screening. The view is likely to be appreciated by the community, as a visual connection between the enclosed village character and the expansive views towards the Cliff, but with commonplace and modern elements in the view. Overall, it is considered to be of low value.</p>
13	<p>Public footpath (Hems/787/82), Millfield, Hemswell Approx. 410m to Order limits (Principal Site). 62m AOD Figure 12-14g of this ES [EN010142/APP/6.3]</p>	<p>A view on a public footpath adjacent to a detached residential property 'Millfield', on the B1398 Middle Street. Receptors will be recreational users of the footpath and residential. The view typifies that of the Cliff and is protected by the AGLV designation, extensively referenced in published character assessments and—unlike other viewpoints along the Cliff—benefit from recreational access, with less influence from traffic on Middle Street. The adjacent property has been designed to take advantage of the elevated views, with a large picture window facing west. Overall, value is high.</p>
14	<p>Harpwell Moat Approx. 270m from Order limits (Principal Site) 32m AOD Figure 12-14h of this ES [EN010142/APP/6.3]</p>	<p>A view from the elevated western edge of the moat to the former (demolished) Harpwell Hall, a Scheduled Monument. Informal access has been provided by the landowner, with interpretation boards outlining the site history and signage to paths. The view reflects designed vistas across the open farmland including those from the nearby</p>

Viewpoint number	Location and distance to nearest boundary of Principal Site	Summary baseline description, receptors and visual value
		former 'prospect mound', albeit of features typical of an intensive agricultural landscape. Receptors will be recreational users of the path, including visitors to the small business and open garden associated with Hall Farm; and the green space which allows open access in an area where PRow are limited. Overall, value is Medium.
64	Dog Kennel Lane Approx. 100m to Order limits (Principal Site). 64m AOD Figure 12-13h of this ES [EN010142/APP/6.3]	A view from the unclassified single track road around 75m east of Middle Street and the top of the Lincoln Cliff scarp, located just outside the AGLV designation. Although the views that are typically available from the Cliff towards the Trent valley are present, these are more restricted and in conjunction with those to north and east, the latter including the industrial estate at Hemswell Cliff and commonplace, intensive farmland. Receptors will largely be in vehicles but with some recreational users, as noted in the Glentworth Neighbourhood Plan. Overall, value is considered to be low.
16	Weldon Road, Hemswell, PRow Hems/19/1 Approx. 440m to Order limits (Principal Site). 42m AOD Figure 12-13i of this ES [EN010142/APP/6.3]	A view from the southern end of Weldon Road where the well-used footpath continues to Harpswell, corresponding to Viewpoint 14 in the Hemswell and Harpswell Neighbourhood Plan. Receptors will be recreational users and residents on the edge of Hemswell village, with views of the Cliff and located within the AGLV. Overall, value is considered to be medium.
17	Common Lane, Heapham Cliff Within Order limits (Principal Site). 25m AOD Figure 12-14i of this ES [EN010142/APP/6.3]	A view from the unclassified single-track road between Heapham and Harpswell, along a straight section with wide grass verges and relatively tall, dense hedges. Receptors will mainly be in vehicles, with the view partly representative of residential properties, although individual views

Viewpoint number	Location and distance to nearest boundary of Principal Site	Summary baseline description, receptors and visual value
		will vary. Overall, value is considered to be low: the location is unlikely to be visited for the view, which comprises commonplace elements typical of the wider agricultural area.
18	Common Lane, west of Heapham Grange Within Order limits (Principal Site). 18m AOD Figure 12-13j of this ES [EN010142/APP/6.3]	A view east along a straight section of Common Lane, characterised by wide verges and generally taller hedgerows, although that to the south has been cut lower at this location. This allows views across the former Sturgate Airfield, where redundant runway areas are used for agricultural storage. Receptors will mainly be in vehicles, with occasional recreational users. The view largely comprises commonplace elements of agricultural and utilitarian uses; overall, value is considered to be low: it is unlikely to be visited specifically for the view.
19	Grange Cottages, School Lane Within Order limits (Principal Site). 28m AOD Figure 12-13k of this ES [EN010142/APP/6.3]	This view looks north from the single track, unclassified School Lane close to Grange Cottages. Low-cut hedges allow open views of intensive farmland towards and beyond the A631. It is representative of local road users in vehicles and residents in the adjacent properties. Overall, value is considered to be low: it comprises commonplace agricultural land with limited interest.
20	A631 east of Corringham Windmill Within Order limits (Principal Site). 22m AOD Figure 12-14l of this ES [EN010142/APP/6.3]	A view from the A631 at the junction of the unclassified single-track road to Corringham. Receptors will largely be in vehicles, travelling at speed, with neither route expected to be favoured by recreational users. Although the nearby windmill provides some heritage interest, the view is dominated by commonplace elements associated with intensive farming. Overall, value is considered to be low.

Viewpoint number	Location and distance to nearest boundary of Principal Site	Summary baseline description, receptors and visual value
21	<p>Corringham Village Hall Approx. 1.1km to Order limits (Principal Site). 22m AOD Figure 12-13l of this ES [EN010142/APP/6.3]</p>	<p>A view from the car park to the village hall on the eastern edge of Corringham, which offers open views towards the distant Lincoln Cliff. It corresponds to View 10 in the Corringham Neighbourhood Plan, with the listed windmill set in open agricultural land. It is representative of users of the village hall and residents along the eastern village fringe. Overall, value is medium: it is appreciated by the community but includes commonplace elements.</p>
22	<p>Sturgate Airfield Approx. 1.5km to Order limits (Principal Site). 18m AOD Figure 12-13m of this ES [EN010142/APP/6.3]</p>	<p>A view from Common Lane where the original alignment has been diverted around the runway to the former World War II RAF base and the lack of planting offers expansive views towards the distant Lincoln Cliff. Receptors will mainly be users of the local road network, but also those visiting the airfield and associated flying clubs. The view is largely functional and dominated by utilitarian elements but has some historical and cultural interest, including the original control tower. Overall, value is considered to be low.</p>
23	<p>Cow Lane, Grove Farm Cottage Approx. 530m to Order limits (Principal Site). 17m AOD Figure 12-13n of this ES [EN010142/APP/6.3]</p>	<p>A view from the unclassified, single track Cow Lane, at a junction with access tracks to two farms and adjacent to a detached property. A section of the road around 300m beyond the viewpoint is a Local Wildlife Site, managed for species rich meadows; but otherwise the view encompasses typical farmland elements, including mature hedgerow trees. Receptors will mainly be in vehicles using the local road network, but also some recreational users of the quiet lanes. Overall, value is considered to be medium.</p>

Viewpoint number	Location and distance to nearest boundary of Principal Site	Summary baseline description, receptors and visual value
24	<p>Middle Street above Glentworth Hall Approx. 210m to Order limits (Principal Site). 65m AOD Figure 12-13o of this ES [EN010142/APP/6.3]</p>	<p>A view of the Grade II* Glentworth Hall from Middle Street from the crest of Lincoln Cliff (within the AGLV), framed by woodland and as part of a wider panorama towards the Trent Valley. It corresponds to Viewpoint 8 in the Glentworth Neighbourhood Plan. Although there is clear heritage and community value, the location has no footway and access is only along the busy Middle Street: receptors will mainly be in vehicles, travelling at speed. Overall, value is considered to be medium.</p>
25	<p>Kexby Road, west of Westlands Farm Approx. 2m to Order limits (Principal Site). 19m AOD Figure 12-13p of this ES [EN010142/APP/6.3]</p>	<p>A view from the unclassified, single track Kexby Road of agricultural fields framed by woodland. The woodland, particularly the mature Big Wood to the west provides interest, but otherwise the view is of commonplace elements. Receptors will be in vehicles using the local road network, with some recreational users such as walkers and cyclists, although the focus of interest is likely to be the woodland that is locally scarce. Overall, value is low: it is unlikely to be visited specifically to experience the views available.</p>
26	<p>Bridleway (Gltw/85/1) north of Willingham Road Within Order limits (Principal Site). 23m AOD Figure 12-13q of this ES [EN010142/APP/6.3]</p>	<p>A view from the bridleway that connects Kexby Road and Willingham Road. It is the only PRoW within the Principal Site and one of relatively few in the wider Study Area, part of a circular route west of Fillingham and Glentworth. Receptors will be recreational users, including walkers, horse riders and cyclists. The dominant character is of expansive farmland with commonplace elements, but the views, including toward the Cliff, are likely to be appreciated in an area with limited traffic-free recreational access. Overall, value is considered to be medium.</p>

Viewpoint number	Location and distance to nearest boundary of Principal Site	Summary baseline description, receptors and visual value
27	<p>Bridleway (Fill/85/2), Willingham Road Approx. 1.4km to Order limits (Principal Site). 21m AOD Figure 12-13r of this ES [EN010142/APP/6.3]</p>	<p>A view from the bridleway where it joins the unclassified, single track road. The former is part of a circular recreational route west of Fillingham and Glentworth. Receptors will be users of the local road network in vehicles and recreational users of the bridleway, including walkers, horse riders and cyclists. The view comprises relatively commonplace agricultural features but is likely to be appreciated in an area with limited traffic-free recreational access. Overall, value is considered to be medium.</p>
28	<p>Yawthorpe Approx. 1.1km to Order limits (Principal Site). 22m AOD Figure 12-13s of this ES [EN010142/APP/6.3]</p>	<p>A view from the hamlet of Yawthorpe, which is characterised by a small number of south-facing properties on slightly elevated ground with open views of farmland. Receptors will be residents or in vehicles traveling along the single-track unclassified road, which has no through access, including for recreational users. Although the view is of relatively commonplace agricultural land, the aspect of the properties is such that value is considered overall to be medium.</p>
29	<p>Common Lane, west of Billyards Farm Within Order limits (Principal Site). 25m AOD Figure 12-13t of this ES [EN010142/APP/6.3]</p>	<p>A view from the single track, unclassified road mid-way between Heapham and Harpswell. The lack of roadside hedgerows contrasts with the section of Common Lane to the west and allows open views towards Lincoln Cliff. However, the character is dominantly one of featureless farmland where the lack of hedgerows suggests a loss of historic elements through agricultural intensification. Receptors will mainly be in vehicles using the local road network: although a quiet, rural lane, this location is further from villages where such routes are the focus of</p>

Viewpoint number	Location and distance to nearest boundary of Principal Site	Summary baseline description, receptors and visual value
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		recreational use. Overall, value is considered to be low.
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Range of People and Places Potentially Affected: Cable Route Corridor

12.6.117 A ZTV has not been produced for Cable Route Corridor, due to:

- a. The relatively restricted nature of the proposed works, in terms of scale/extent and duration;
- b. The works not being expected to take place across the corridor at the same time, such that ZTVs would not properly reflect more localised works; and
- c. Screening by vegetation such as hedgerows, which would often be sufficient to limit views of the proposed works, cannot be accurately reflected in screened (barrier) ZTVs, thus over-exaggerating visibility.

12.6.118 A site survey of the Cable Route Corridor was undertaken from publicly accessible locations, supported by a desktop review and aerial mapping. A number of representative viewpoints have been included to support the assessment. This information has informed judgements of value, susceptibility and sensitivity described below.

12.6.119 Visual receptors that may receive views of the Cable Route Corridor are summarised below. Where the corridor passes through the Principal Site, receptors will be the same as those noted above.

Views from Residential Locations (Cable Route Corridor)

12.6.120 There are no residential properties within the Order limits, but several are located nearby. Residential receptors likely to receive views are generally located on village fringes or as isolated properties, where they may experience open aspects across rural landscapes, including towards the Cliff and the Trent Valley. Views from Normanby are referenced in Neighbourhood Plan supporting documents. The level of screening will vary between individual properties. Properties and settlements that may theoretically receive views of the Cable Corridor Route include, but are not limited to:

- a. Along Cow Lane, Fillingham Lane, South Lane, Stow Road and Normanby Road;
- b. Normanby by Stow;
- c. To the northwest edge of Stow;
- d. Along access routes around Stow Park, including Stow Park Road;
- e. Along Stow Park Road (A1500);

- f. To the southern edge of Marton, including the A156 High Street;
- g. Within Trent Port;
- h. To the eastern edge of Rampton; and
- i. Along the access route through Cottam.

Views from Public Rights of Way (Cable Route Corridor)

12.6.121 PRow within and immediately adjacent to the Order limits are shown on **Figure 12-7** of this ES [EN010142/APP/6.3]. Recreational receptors will generally experience views of rural landscapes, broadly of commonplace elements typical of intensive farming, but also features such as church spires, the distant Lincoln Cliff and the River Trent with adjacent, less intensively-managed pastures. Detracting elements are dominant around Cottam power station, including overhead power lines. Within the eastern part of the Cable Route Corridor, PRow are relatively limited and will arguably offer a greater degree of value through scarcity. PRow around Cottam power station are more numerous and heavily influenced by adjacent power infrastructure, but also provide well used routes (e.g. along byways such as Torksey Ferry Road) to the River Trent that are easily accessible from nearby villages, as noted in the Rampton and Woodbeck Neighbourhood Plan.

12.6.122 PRow that may theoretically receive views of the Cable Corridor Route include, but are not limited to:

- a. PRow bridleway (Stow/70/1) and Byway Open To All Traffic (BOAT) along Wooden Lane west of Stow;
- b. Footpath Mton 68/1 south of Marton;
- c. Footpath Mton 66/4 and Bram 66/1 south of Trent Port;
- d. Footpath N. Leverton with Habbleshorpe FP9 and Cottam FP1 (the Trent Valley Way) along the west bank of the River Trent;
- e. Footpath Cottam FP3 west of Headstead Bank;
- f. Restricted Byways RB4 (Outgang Lane) and RB6 (Wells Lane);
- g. Footpaths Rampton FP4, FP5 and Treswell FP5/Rampton FP6 west of Cottam Power Station;
- h. South Leverton BOAT 16 along Cow Pasture Lane, west of Cottam;
- i. BOAT 13 (Torksey Ferry Road), between Rampton and the River Trent; and
- j. Footpath Rampton FP4, FP5, FP6 FP20 (Nightleys Road) and BOAT Rampton 13 (Torksey Ferry Road) south and west of Cottam Power Station.

Views from Roads (Cable Route Corridor)

12.6.123 Road receptors will experience views of rural landscapes, broadly of commonplace elements typical of intensive farming, but also feature such as church spires and the distant Lincoln Cliff. Detracting elements are dominant around Cottam Power Station, including overhead power lines. The absence

of PRow to the east of the Cable Route Corridor is such that quiet rural lanes have value for recreational activities, reflected in supporting documents for Neighbourhood Plan. These include routes such as Cow Lane that are subject to Local Wildlife Site designations, as protection for species-rich verges.

12.6.124 Roads that may theoretically receive views of the Cable Corridor Route include, but are not limited to:

- a. Unclassified rural roads east of Willingham, including Cow Lane, Fillingham Lane, South Lane and between Normanby and Coates
- b. B1241 Normanby Road/Stow Road; Stow Park Road and Willingham Road, west of Stow;
- c. A1500 Till Bridge Lane/Stow Park Road;
- d. Residential roads in Marton;
- e. A156 High Street south of Marton;
- f. Trent Port Road; and
- g. Headstead Bank Town Road and Cottam Road, in and around Cottam.

Views from Railways (Cable Route Corridor)

12.6.125 Rail receptors will have views from the Gainsborough Lea Road/Sheffield to Lincoln Central line, which carries up to around 25 passenger trains each way, alongside freight services. Rail receptors will experience views of locally commonplace, intensively farmed landscapes for a short section where it crosses the Cable Route Corridor between Marton and Stow.

Views from River Traffic (Cable Route Corridor)

12.6.126 Receptors in craft use the River Trent, as both recreational and commercial traffic. Receptors on boats will experience views of pastoral meadows and localised woodland along the Trent valley, with limited influence of vehicle traffic; but a wider dominance of overhead lines and Cottam Power Station.

12.6.127 **Table 12-6** provides a summary of the representative viewpoints with respect to the Cable Route Corridor, the locations of which are shown on **Figure 12-12** of this ES [EN010142/APP/6.3]. These are presented, with reference to LI Technical Advice Note (TGN) 06/19 Visual Representation of Development Proposals (Ref. 12-34), as 'Type 1' baseline representative views in **Figure 12-13** of this ES [EN010142/APP/6.3].

12.6.128 A more comprehensive description of the baseline view, which explains the basis for how value is derived (based on the methodology provided in **Appendix 12-2** of this ES [EN010142/APP/6.2]) is provided in **Appendix 12-4** of this ES [EN010142/APP/6.2].

Table 12-6: Summary baseline viewpoint descriptions and visual value at representative viewpoints (Cable Route Corridor)

Viewpoint number	Location and distance to nearest boundary of Order limits (Cable Corridor)	Summary baseline description, receptors and visual value
CRC1	<p>Glentworth Road and Gypsey Lane Within Order limits (Cable Route Corridor) 15m AOD Figure 12-13u of this ES [EN010142/APP/6.3]</p>	<p>This view is located on the unclassified single track Glentworth Road, at the junction with Gypsey Lane. The latter is not a PRow but shows evidence of recreational use. It encompasses the wide verges of the road, fields and woods, with long-range views of the Cliff. Receptors will mainly be in vehicles using the local road network, but also some recreational users of the quiet rural lanes. Overall, value is considered to be low: it is unlikely to be visited specifically to experience the views available.</p>
CRC2	<p>Fillingham Lane – Moor House (entrance to Chestnut Manor) Within Order limits (Cable Route Corridor) 13m AOD Figure 12-13v of this ES [EN010142/APP/6.3]</p>	<p>This view looks east along a straight section of the unclassified single-track road, with views partly screened by hedges. Receptors will mainly be in vehicles using the local road network, but also some recreational users of the quiet rural lanes. Overall, value is considered to be low: it is unlikely to be visited specifically to experience the views available.</p>
CRC3	<p>Flat Tops, Coates Lane Approx. 80m to Order limits (Cable Route Corridor) 15m AOD Figure 12-13w of this ES [EN010142/APP/6.3] (note winter/worst case photography only)</p>	<p>This view is located immediately to the east of four adjacent properties 'Flat Tops', encompassing an open, rural aspect that extends as far as the distant Lincoln Cliff. Receptors will mainly be in vehicles using the local road network, but also some recreational users of the quiet rural lanes, particularly from Stow. Receptors will also be in the properties although these are subject to localised screening to north-facing views. Overall, value is considered to be low: although it allows an appreciation of the wider landscape, elements are</p>

Viewpoint number	Location and distance to nearest boundary of Order limits (Cable Corridor)	Summary baseline description, receptors and visual value
		commonplace and typical of the wider area.
CRC4	<p>Wooden Lane, south of Marton Road, Stow (Bridleway Stow/70/1) 480m to Order limits (Cable Route Corridor) 15m AOD</p> <p>Figure 12-13x of this ES [EN010142/APP/6.3] (note winter/worst case photography only)</p>	<p>This view is on a bridleway between Stow and Marton Road, which forms a section of a partially traffic-free route between Stow and Willingham. Although many of the aspects in the view are typical of intensive agriculture in the wider area, the bridleway has recreational importance and allows views of Stow Minster. Receptors will be recreational users of the bridleway. Overall, value is considered to be medium.</p>
CRC5	<p>Marton, Poplar Farm (Footpath Mton/68/1) 1m to Order limits (Cable Route Corridor) 23m AOD</p> <p>Figure 12-13y of this ES [EN010142/APP/6.3]</p>	<p>This view along the footpath where it crosses an agricultural field is taken from a farm access track on the edge of Marton village. The eastern section of the PRoW leads only to the A1500 and shows little evidence of use, whereas the track appears to form part of a well-used walking route around the village, including the eastern section of the PRoW. Receptors will be mainly users of the path, but also in nearby properties, although the majority of the latter are screened by trees. This particular view is relatively restricted and includes commonplace elements. Value is considered to be low; it is unlikely to be visited specifically to experience the views available.</p>
CRC6	<p>Footpath Bram/66/1 south of Trent Port, Marton Within Order limits (Cable Route Corridor) 10m AOD</p> <p>Figure 12-13z of this ES [EN010142/APP/6.3]</p>	<p>This view is from a slightly elevated location that affords a wide panorama encompassing the Trent Valley, Marton village and distant power stations. The footpath forms part of a well-used circuit to the south of the village; receptors will be recreational users. Although detracting elements such as pylons are present, the view offers an</p>

Viewpoint number	Location and distance to nearest boundary of Order limits (Cable Corridor)	Summary baseline description, receptors and visual value
		opportunity to appreciate the wider landscape setting in an area where PRow are limited. Overall, value is considered to be medium.
CRC7	Trent Valley Way (Cottam FP1) 2m to Order limits (Cable Route Corridor) 5m AOD Figure 12-13aa of this ES [EN010142/APP/6.3]	A view looking south along the west bank of the River Trent, where the footpath forms part of the long-distance Trent Valley Way. The river dominates the view, with an open panorama of farmland and the dominant, disused coal-fired Cottam power station. Receptors will be recreational users of the path, along with craft (commercial and leisure) using the Trent. Although characterised by infrastructure and on a path where footfall does not appear to be high, the presence of the Trent both as a feature and a route for receptors means that the overall sensitivity is considered to be medium.
CRC8	Broad Lane/Cow Pasture Lane (South Leverton BOAT16) 330m to Order limits (Cable Route Corridor) 7m AOD Figure 12-13bb of this ES [EN010142/APP/6.3]	A view on the unclassified, single track Broad Lane with the junction to the unsurfaced byway (Cow Pasture Lane), with an open panorama of low-lying farmland and the dominant, disused coal-fired Cottam power station. Receptors will include those in vehicles using the local road network and recreational users of the quiet lanes and byways. Adjacent properties have limited views due to screening. The view includes commonplace and functional elements; value is considered to be low.
CRC9	Rampton, north of Home Farm Cottage (footpath FP4)	A view from a well-used footpath that leads northwest from the edge of Rampton village. The disused coal-fired Cottam powers station is dominant in the view, including (at the time of survey) the partially demolished turbine hall. Also visible are the high voltage overhead lines,

Viewpoint number	Location and distance to nearest boundary of Order limits (Cable Corridor)	Summary baseline description, receptors and visual value
	650m to Order limits (Cable Route Corridor) 9m AOD Figure 12-13cc of this ES [EN010142/APP/6.3]	pylons and the National Grid Cottam Substation. Receptors will be recreational users of the footpath and residents, although the latter will have varied levels of screening to individual views. Despite these detractors and with consideration for varied opinions that the cooling towers evoke, alongside their influence on the landscape and focus of local employment, overall sensitivity is considered to be medium.

Future Baseline

- 12.6.129 In the absence of the Scheme, the future landscape and visual baseline across the Study Area is anticipated to remain broadly as stated above. Potential exceptions are noted below. Effects in relation to future development are considered within **Chapter 18: Cumulative Effects and Interactions** of this ES [EN010142/APP/6.1].
- 12.6.130 The loss of ash trees to ash dieback will continue, including mature specimens that are locally prominent along road and field boundaries (e.g. Common Lane) and along the Cable Route Corridor. Other potential pests or diseases and the impact of climate change may result in unforeseen reduction in the health of and/or loss of vegetation. This may impact on the condition and value of the wider landscape and/or some views and the level of screening afforded. The selection of new planting will take into account these risks and increase resilience through a range of appropriate species and consideration of plant provenance, which is outlined in the **Framework LEMP [EN010142/APP/7.17]**.
- 12.6.131 Implementation of the proposed bridleway (PRoW) between Harpswell and Glentworth is subject to an application to LCC which is ongoing at the time of ES preparation. This route will reconnect the two villages via the historic 'lower road' that runs parallel to Middle Street, along the base of Lincoln Cliff. The reinstated PRoW is a long-term community aspiration that will close a 'missing link' where, at present, recreational receptors must risk fast-moving traffic and the absence of any footway along Middle Street.
- 12.6.132 The proposed PRoW route will not be compromised by the Scheme and no permanent solar infrastructure will be located on the route. Principal Site Access 4 will cross the alignment and the route will remain open both during construction, operation and decommissioning. The required mitigation will be identified within the **Framework Construction Traffic Management**

Plan (CTMP) [EN010142/APP/7.11], Framework PRow Management Plan [EN010142/APP/7.16] and Framework LEMP [EN010142/APP/7.17]. The Proposed PRow will run through an area identified for biodiversity mitigation and enhancement, which will offer greater visual interest in the immediate surrounds than the existing intensive farmland during operation. Existing woodland to the west will screen the Principal Site for the majority of this closest section of the proposed PRow, with further mitigation screening incorporated into the design closer to Harpswell.

- 12.6.133 Although forming part of the cumulative assessment, the continued demolition of the Cottam coal-fired power station and the programmed demolition of the West Burton coal-fired plant will also represent a key change in the landscape and visual baseline within the Study Area. The cooling towers are the most distinctive features associated with these power stations. Although conventionally regarded as detractors, those at Cottam have arguably formed a characteristic element within the landscape; have been the focus of local employment for a generation; and represent an elegant design that resolves both form and function.
- 12.6.134 The presence of the power stations is noted in the assessment; for example, in panoramic views from Lincoln Cliff where the cooling towers of both Cottam and West Burton are visible as distant infrastructure. Close-range views are available around the River Trent on the Cable Corridor Route, where they are frequently dominant elements. On balance, the removal of such features is likely to result in an increase in both landscape and visual sensitivity. The greatest changes in the baseline will arise for visual receptors around Rampton and Cottam, for example representative viewpoints CRC 7, 8 and 9. However, it should also be noted that the gas-fired power station and infrastructure associated with the National Grid, including pylons, will remain at Cottam Power Station.

12.7 Embedded Design Mitigation

- 12.7.1 This section contains the mitigation measures relevant to this chapter that are already incorporated into the Scheme design, as described in **Chapter 3: Scheme Description** of this ES [EN010142/APP/6.1]. These mitigation measures are provided for under the **Framework CEMP [EN010142/APP/7.8]** and are described in more detail in the **Framework LEMP [EN010142/APP/7.17]**.
- 12.7.2 As outlined in **Section 12.4**, the design of the Principal Site has been influenced from the outset by preliminary appraisal exercises and high-level constraints and opportunities plans. These identified areas of greatest risk with respect to landscape and visual matters and therefore an increased need for mitigation and/or design development. These plans were developed through a process that included meetings with residents in properties around the Principal Site through both the PEI Report and ES stages.
- 12.7.3 This process has informed the iterative design process, via the establishment of design principles for the Scheme, which also respond to policy requirements, published landscape character assessments and fieldwork analysis, in order to mitigate the likely effects of the Scheme.

12.7.4 Landscape design principles and mitigation are included within the Principal Site Indicative Site Layout Plan (**Figure 3-1** of this ES [EN010142/APP/6.3]) and therefore embedded in the Scheme design and accounted for in the assessment process.

12.7.5 The following is a summary of design principles that have been incorporated into the Scheme up to and including the PEI Report stage:

- a. Removal any solar infrastructure from the AGLV designation along the prominent scarp slope of Lincoln Cliff, with only ecological or landscape mitigation located within the boundary of this local designation.
- b. Withdrawing the boundary to the Principal Site northwards (in combination with landowner negotiations), away from the areas around Ingham and Fillingham, which include sensitive features such as PRoW, Fillingham Lake and potential views from Fillingham Castle.
- c. Avoiding areas of open or slightly undulating topography along the base of Lincoln Cliff, including immediately west of Glentworth.
- d. Identifying relevant Neighbourhood Plan 'key views' to highlight potential areas for mitigation, such as west of Harpswell.
- e. Providing buffers around residential properties, with woodland mitigation where appropriate, but also cognisant of residents' appreciation of open views. These buffers vary from around 30m (where existing dense screening is in place) or more generally a minimum of 50m, up to around 300m.
- f. Withdrawing the Principal Site boundary eastwards, away from Springthorpe, following site surveys that identified more open views from certain properties and the presence of the temporary voluntary permissive bridleway.
- g. Creating a buffer between the Principal Site and the Cottam Solar Project to the south and using these fields for ecological and landscape mitigation only.
- h. Provision of woodland or shelter belt planting along the south side of Kexby Road within areas identified for ecological mitigation, whilst also reducing cumulative views of the Cottam Solar Project.
- i. Using higher flood-risk areas for ecological mitigation, with scope for wetland habitats.
- j. Reinstatement and/or improvement of field boundaries, particularly in the more open parts of the site such as west of Harpswell, to limit visibility of the Scheme and increase landscape condition and habitat connectivity.
- k. Use of smaller and/or peripheral fields for mitigation, such as along the south side of the A631.
- l. Identifying areas for woodland belts to the west of Harpswell, to mitigate impacts on views from the Scheduled Monument moated site and historic gardens that are accessible through permissive paths and open space.
- m. Use of existing farm tracks and field openings as the preferred routes for construction access, minimising loss of hedgerows.

- n. Avoiding construction access through Glentworth and along Flaxby Lane (where practicable), where sharp bends may require vegetation removal (identified as being of value in the Neighbourhood Plan); or where residents have expressed concerns about loss of tranquillity along quiet rural lanes. The avoidance of such routes informed the location of infrastructure, e.g. the access route from Middle Street to the proposed on-site substation that avoids Glentworth.
- o. Siting of on-site substations and operational site office in locations where existing screening will limit visibility, or where sensitivity is lower such as near the existing slurry lagoon at Hemswell Grange (see also items below).
- p. Avoidance of sensitive landscape features along the Cable Route Corridor such as hedgerows as far as possible.
- q. Wider use of new green infrastructure elements and corridors throughout the Scheme, to increase habitat connectivity; enhance landscape condition; and improve visual amenity within sometimes degraded agricultural landscapes. This includes provision of semi-improved grassland beneath the solar panel areas and within the wider Principal Site to increase biodiversity relative the current arable monocultures, including biomass crops. These are set out in **the Framework LEMP [EN010142/APP/7.17]**.

12.7.6 The following is a summary of design principles have that have been incorporated into the Scheme (in addition to those above) between the PEI Report and ES stage:

- a. Removal of panels from three fields at the northeastern corner of the Principal Site to mitigate heritage and landscape impacts relating to the Scheduled Monument at Harpswell Hall. These include designed views from the former 'prospect mound' and similar views from permissive paths along the historic moat.
- b. Removal of solar infrastructure from the two fields immediately east of the Scheduled Monument (Biodiversity Zone (BZ) 8), to mitigate impacts as described above; and also reduce the presence of solar infrastructure close to a permissive circular walking route around the two fields to the east.
- c. Removal of solar infrastructure from the field north of Kexby Road and west of Northlands Road to mitigate heritage impacts and reduce visibility for users and residents of Kexby Road and from viewpoints around Glentworth. This area is now proposed for biodiversity mitigation and enhancement, as the eastern part of BZ 13.
- d. Provision of woodland screening and an area of biodiversity enhancement south of Springthorpe Grange, to reduce visual impacts on the open views from the south of the property.
- e. Amendments to the proposed woodland and biodiversity enhancement around the former orchard area north of Grange Cottages on School Lane, mainly to reflect great crested newts within the pond, but also allowing a wider buffer to the relic vegetation whilst maintaining screening of the proposed on-site substation for the Cottages.

- f. Extension to the biodiversity enhancement area (BZ6) into the field south of Hemswell Grange and Grange Cottage on the A631, to create a wider buffer with tree planting to limit residential view of panels.
- g. Provision of woodland or shelter belt planting along the south side of the Order limits and mitigation area south of Kexby Road (BZ 14); and the removal (of proposed trees and hedges along the southern boundary of Kexby Road following feedback received on the PEI Report. This amendment reflects concerns raised by residents within properties along Kexby Road about loss of open views to the south, but retaining screening to the Cottam Solar Project.
- h. Enhancements to existing hedgerows running east-west through the site, to create more robust and continuous green infrastructure corridors, e.g. BZ 10 east of Harpswell Wood.
- i. Provision of two permissive paths connecting Common Lane and Kexby Road, offering recreational access in an area where PRow are limited and also improving north-south off-road links. The paths will be located within 25m wide corridors that will allow sufficient space for planting such as hedgerows to screen solar infrastructure and offer biodiversity and visual interest to users.
- j. Provision of wider buffers to trees over 4m tall and 10m from the top of ditch banks, as opposed to from the centre of watercourses.
- k. Relocation of the operational site office and stores to a location south of Hemswell Grange due to amenity concerns over the adjacent sludge lagoon but utilising existing vegetation screening from the A631 and the adjacent property at the new location.

12.8 Assessment of Likely Effects

- 12.8.1 The Scheme as outlined in **Chapter 3: Scheme Description** of this ES **[EN010142/APP/6.1]** has been considered in assessing the likely impacts and effects of the Scheme, whilst taking into account the embedded mitigation described in the previous section and shown on **Figure 3-1** (Principal Site Indicative Site Layout Plan) of this ES **[EN010142/APP/6.3]**. Both the Site Layout Plan and Scheme Description reflect a worst-case scenario in terms of potential impacts upon which this assessment is based.
- 12.8.2 The effects associated with the construction, operation (year 1, winter), operation (year 15, summer) and decommissioning of the Scheme are outlined in the sections below. The types and duration of impacts will be different during the construction, operation and decommissioning phases. The sources of the impacts for the different scenarios are listed in **Section 12.3**.
- 12.8.3 This section provides a summary of landscape and visual effects. More detailed information is provided in the following Appendices:
- a. Landscape effects: **Appendix 12-5** of this ES **[EN010142/APP/6.2]**: in relation to the Principal Site (**Table 1-1**) and in relation to the Cable Route Corridor (**Table 1-2**)

- b. Visual effects: **Appendix 12-6** of this ES [EN010142/APP/6.2]: in relation to the Principal Site (**Table 1-1**) and in relation to the Cable Route Corridor (**Table 1-2**)
- 12.8.4 Significant residual effects are those that are defined as moderate or major. These are listed in **Section 12.10**, **Table 12-8** and **Table 12-7** at the end of this chapter.
- 12.8.5 Cumulative landscape and visual effects are considered in **Chapter 18: Cumulative Effects and Interactions** of this ES [EN010142/APP/6.1]

Assessment of Landscape Effects

- 12.8.6 The assessment of landscape effects has been undertaken with reference to the LLCA defined by the Applicant in **Appendix 12-3** of this ES [EN010142/APP/6.2], summarised in Section 12.610345021.0 above and illustrated in **Figure 12-11** of this ES [EN010142/APP/6.3].
- 12.8.7 A summary of landscape effects is provided below. Full descriptions of landscape susceptibility, sensitivity, the nature/magnitude of change and effects are provided in **Appendix 12-5** of this ES [EN010142/APP/6.2].

Assessment of Landscape effects: Construction (2025 to 2027)

- 12.8.8 The highest magnitude of landscape impacts during construction will arise within areas of the Principal Site identified for solar PV infrastructure. These are contained within LLCA 3A Till Vale – Open Farmland. Such impacts will arise from direct, physical changes to the landscape and perceptual influences related to construction, particularly excavation, earthworks, movement of plant and personnel; and the progressive installation of solar infrastructure as a new and incongruous element.
- 12.8.9 Sensitivity for LLCA 3A is considered to be low, on account of the generally simple pattern of common features within intensive farmland, although perceptual influences are higher due to openness and proximity of the Lincoln Cliff to the east. Construction will not result in the loss of valued landscape features such as veteran or ancient trees or areas of high biodiversity: there will be only localised removal of short sections of hedgerow and a small number of low-value trees where this cannot be avoided for access. Existing vegetation that is to be retained will be protected (see **Appendix 12-7: Arboriculture Impact Assessment [EN010142/APP/6.2]** and secured through the **Framework CEMP [EN010142/APP/7.8]**), including the provision of buffers that will also apply to watercourses and will be retained during the operational phase. However, the scale and intensity of the construction phase is such that the high magnitude of change combined with low sensitivity results in a **moderate adverse** level of effect on LLCA 3A during construction, which is **significant**.
- 12.8.10 Direct impacts will also arise on LLCA 2C Lincoln Cliff – Open Farmland. No solar PV infrastructure will be located in this LLCA and only mitigation and enhancement are proposed along the eastern edge of the Principal Site for the operational phase. However, this need to be considered against an upgraded construction access route (Access point 4); a substantial increase

in plant/traffic movement at this point; and the indirect impacts arising from the perceptual influence of construction from LLCA 3A on views from Lincoln Cliff. Such views are frequently referenced in published landscape character assessments and are the basis for the Local Plan policy AGLV designation. The medium magnitude of change combined with the medium sensitivity of the receptor results in a **moderate adverse** level of effect on LLCA 2C during construction, which is **significant**.

12.8.11 No direct landscape effects will occur during construction for LLCA 2B, Lincoln Cliff – Harpswell. The sensitivity of this LLCA is considered to be high, due to the collective value of heritage assets, a PRoW and permissive access within a 'parkland' landscape and Neighbourhood Plan policies in relation to open space and views. However, the Scheme has potential for construction to influence these perceptual qualities, particularly views into the wider landscape and from legible and accessible elements of the designed historic landscape. As a worst-case, the low magnitude of change combined with the high sensitivity of the receptor results in a **moderate adverse** level of effect on LLCA 2B during construction, which is **significant**.

12.8.12 No significant landscape effects during construction in relation to the Principal Site are expected for LLCA other than 3A, 2B and 2C noted above. Although construction will result in indirect impacts arising from perceptual influences outside the Principal Site boundary, the level of effect will be limited to minor at most, and not significant. This is due to the presence of screening from vegetation, particularly mature trees within villages and dense, tall hedgerows that reflect older field patterns around historic settlement.

12.8.13 No significant landscape effects are expected for LLCA in relation to construction of the Cable Route Corridor. The works will be of relatively limited extent and of a temporary, short-term duration, with very localised vegetation removal, plant and traffic movement, compounds and lighting. The most sensitive landscape elements will be the roadside verge Local Wildlife Sites, more mature hedgerows associated with older field patterns and pasture along the River Trent. The level of effect is **minor** adverse at most, and not significant.

Assessment of Landscape effects: Operation Year 1 (Winter)

12.8.14 The highest magnitude of landscape impacts at Operation Year 1 will arise where the presence of solar infrastructure within the Principal Site results in the massing of incongruous, industrial features and a comprehensive alteration of the overall character. Whilst the majority of infrastructure elements are considered temporary and will be removed at the decommissioning stage, the 60-year operational life of the Scheme would be regarded as being close to a generational change in landscape character. Although grassland will be created beneath the panels, this alteration is of such an extent that there will effectively be a change in land use, albeit ultimately temporary, from agriculture to a solar farm. Planting and ecological mitigation will be insufficiently mature to reduce perceptual influences, nor provide direct improvements on landscape character, quality and green infrastructure. The high magnitude of change combined with the low sensitivity of the receptor results in a **moderate adverse** level of effect on

LLCA 3A, Till Vale – Open Farmland during Operation Year 1, which is **significant**.

12.8.15 **Moderate adverse (significant)** effects will arise for LLCA 2B Lincoln Cliff – Harpswell at the Operation Year 1 phase. As noted above for the construction phase, the solar PV infrastructure is likely to influence perceptual qualities on LLCA 2B Lincoln Cliff – Harpswell with immature screen planting not yet sufficiently established to fully mitigate effects. The low magnitude of change combined with the high sensitivity of the receptor results in a **moderate adverse** level of effect during Operation Year 1, which is **significant**.

12.8.16 No significant landscape effects at Operation Year 1 in relation to the Principal Site are expected for any other LLCA other than 3A and 2B noted above. As noted for the construction phase, this is due to the level of screening from existing vegetation, particularly mature trees within villages and dense, tall hedgerows that reflect older field patterns around historic settlement. For LLCA 2B Lincoln Cliff, the Scheme will result in perceptual change to views that are a defining feature, but it will not change many of the inherent characteristics, nor disrupt these views. Based on a combination of the magnitude of change and sensitivity, the level of effect for these other LLCA is minor adverse at most, and not significant.

12.8.17 No significant landscape effects are expected for the LLCA at Operation Year 1 in relation to the Cable Route Corridor. Effects will be limited as small areas of reinstated vegetation, very localised instances of permanent vegetation removal due to operational requirements and newly-seeded agricultural land will broadly be typical of the agricultural landscape. Based on a combination of the magnitude of change and sensitivity, the level of effect is minor adverse at most, and not significant.

Assessment of Landscape effects: Operation Year 15 (summer)

12.8.18 The highest magnitude of landscape effects at Operation Year 15 will again arise where presence of solar infrastructure within the Principal Site results in a comprehensive and long-term alteration of the overall character, as a continuance from the Year 1 Operation (winter) phase. Land use will effectively remain as a solar farm. However, planting and ecological mitigation or enhancement will be more mature, limiting perceptual influences and resulting in a positive change to some elements of the landscape character, quality and green infrastructure, in line with published landscape assessments and Local Plan land management guidelines and strategies. Some localised benefits will occur, such as within the mitigation and enhancement Biodiversity Zones; but overall the high magnitude of change combined with the low sensitivity of the receptor results in a **moderate adverse** level of effect on LLCA 3A, Till Vale – Open Farmland during Operation Year 15, which is **significant**.

12.8.19 No significant landscape effects at Operation Year 15 (summer) in relation to the Principal Site are expected for LLCA other than 3A noted above. This includes LLCA 2B Lincoln Cliff – Harpswell, where mitigation will now have sufficiently limited indirect, perceptual influences (particularly for areas that

are publicly accessible) and the effect will be minor adverse. The screening provided by more mature mitigation planting will reduce effects for most of the LLCA located around the Principal Site, further to those described at Year 1 Operation. Based on a combination of the magnitude of change and sensitivity, the level of effect is minor adverse at most, and not significant.

12.8.20 No significant landscape effects are expected for LLCA at Operation Year 15 (summer) in relation to construction of the Cable Route Corridor. Landscape effects are minor adverse at most. Effects will be limited as planting and grassland will have established such that the route will largely not be perceptible, other than where operational requirements may (as a worst-case scenario) prevent replanting over the Cable Route Corridor. Based on a combination of the magnitude of change and sensitivity, the level of effect is minor adverse at most, and not significant.

Assessment of Landscape effects: Decommissioning (winter)

12.8.21 Activities relating to decommissioning are likely to be similar to construction for the Principal Site as a worst-case scenario, including the temporary, short-term presence of plant and traffic movement and earthworks. The perception of change will be further reduced since Operation Year 15 due to the increased maturity of vegetation and resultant screening, with ecological mitigation or enhancement providing a greater positive contribution to landscape character, quality and green infrastructure. Outside these areas, the majority of the Principal Site will be returned to agricultural use. No significant landscape effects are expected to arise from the decommissioning phase: based on a combination of the magnitude of change and sensitivity, the level of effect is minor adverse at most, and not significant.

12.8.22 No significant landscape effects are expected for LLCA at decommissioning (winter) of the Cable Route Corridor.

Assessment of Visual Effects

12.8.23 The assessment of visual effects in has been undertaken with reference to the representative viewpoints and photomontages (Principal Site only) provided in **Figure 12-13** and **Figure 12-14** of this ES [EN010142/APP/6.3]. These have been prepared in accordance with LI Technical Advice Note (TGN) 06/19 Visual Representation of Development Proposals (Ref. 12-34).

12.8.24 A summary of effects is provided below. Full descriptions of visual susceptibility, sensitivity, the nature/magnitude of change and effects are provided in **Appendix 12-6** of this ES [EN010142/APP/6.2].

12.8.25 No views or change in visual impact will occur at representative viewpoint 6 (Bridleway (Gltw/85/1) south of Glentworth) and 22 (Sturgate Airfield), due to a combination of screening by topography, vegetation and distance from the Principal Site. These viewpoints were therefore not taken forward in the assessment. Further details are provided in **Table 1-1** of **Appendix 12-6** of this ES [EN010142/APP/6.2].

Assessment of Visual Effects: Construction (2025 to 2027)

12.8.26 The highest levels of visual effect during construction will arise from receptors in proximity to areas of the Principal Site identified for solar PV infrastructure. Such effects will arise for short range views that are not currently screened by existing hedgerows or woodland; and/or where visual receptor sensitivity is higher, such as for residential receptors; from PRoW; and from receptors with open views from Lincoln Cliff.

12.8.27 Significant visual effects during construction in relation to the Principal Site for assessed representative viewpoints (with figure corresponding numbers referencing this ES of this ES [EN010142/APP/6.3]) are summarised as follows:

- a. Viewpoint 1 (A631, Hemswell Road junction) (**Figure 12-13a**): low sensitivity combined with a high magnitude of change resulting in a **moderate adverse** level of effect;
- b. Viewpoint 2a (view east from Common Lane, Harpswell) (**Figure 12-14a**): medium sensitivity combined with a medium magnitude of change resulting in a **moderate adverse** level of effect;
- c. Viewpoint 2b (view west from Common Lane, Harpswell) (**Figure 12-14b**): medium sensitivity combined with a high magnitude of change resulting in a **major adverse** level of effect;
- d. Viewpoint 4 (B1398 Middle Street, above Harpswell) (**Figure 12-14c**): medium sensitivity combined with a medium magnitude of change resulting in a **moderate adverse** level of effect;
- e. Viewpoint 7 (B1398 Middle Street, Glentworth Cliff Farm) (**Figure 12-14d**): high sensitivity combined with a low magnitude of change resulting in a **moderate adverse** level of effect;
- f. Viewpoint 9 (Kexby Road, west of Glentworth Grange) (**Figure 12-14e**): high sensitivity combined with a high magnitude of change resulting in a **major adverse** level of effect;
- g. Viewpoint 13 (Public footpath, Millfield, Hemswell) (**Figure 12-14g**): high sensitivity combined with a low/medium magnitude of change resulting in a **moderate/major adverse** level of effect;
- h. Viewpoint 19 (Grange Cottage, School Lane, Springthorpe) (**Figure 12-13k**): medium sensitivity combined with a high magnitude of change resulting in a **moderate/major adverse** level of effect;
- i. Viewpoint 20 (A631 east of Corringham Windmill) (**Figure 12-14j**): low sensitivity combined with a high magnitude of change resulting in a **moderate adverse** level of effect;
- j. Viewpoint 28 (Yawthorpe) (**Figure 12-13s**): high sensitivity combined with a low magnitude of change resulting in a **moderate adverse** level of effect; and
- k. Viewpoint 29 (Common Lane, west of Billyards Farm) (**Figure 12-13t**): low sensitivity combined with a high magnitude of change resulting in a **moderate adverse** level of effect.

- 12.8.28 Based on the representative viewpoint assessments above, significant visual effects during construction largely arise for receptors with open, elevated views from the Cliff; or where receptors are in close proximity to the Principal Site where screening is currently limited or absent.
- 12.8.29 The absence of PRow in proximity to the Principal Site contributes to there being relatively fewer significant visual effects overall.
- 12.8.30 Significant visual effects during construction in relation to the Cable Route Corridor for assessed representative viewpoints are summarised as follows:
- Viewpoint CRC6 (Footpath Bram/66/1/S south of Trent Port, Marton) (**Figure 12-14z**): medium sensitivity combined with a medium magnitude of change resulting in a **moderate adverse** level of effect; and
 - Viewpoint CRC7 (Trent Valley Way, Cottam) (**Figure 12-14aa**): medium sensitivity combined with a medium magnitude of change resulting in a **moderate adverse** level of effect.
- 12.8.31 These significant effects are likely to arise, as a worst-case scenario, where the Cable Route Corridor construction will require more substantial works associated with trenchless crossing techniques under the Trent; and access routes will be along and/or in very close proximity to PRow and receptors on the River Trent.

Assessment of Visual effects: Operation Year 1 (Winter)

- 12.8.32 The highest magnitude of visual effects at Operation Year 1 in relation to the Principal Site will be similar to those described above for the construction phase. These will arise for receptors in proximity to areas of the Principal Site identified for solar PV infrastructure where these new elements will be incongruous, of long-term duration and where any new mitigation planting will be immature and not provide screening.
- 12.8.33 Significant effects for the assessed representative viewpoints are summarised as follows:
- Viewpoint 1 (A631, Hemswell Road junction) (**Figure 12-13a**): low sensitivity combined with a high magnitude of change resulting in a **moderate adverse** level of effect;
 - Viewpoint 2a (view east from Common Lane, Harpswell) (**Figure 12-14a**): medium sensitivity combined with a medium magnitude of change resulting in a **moderate adverse** level of effect;
 - Viewpoint 2b (view west from Common Lane, Harpswell) (**Figure 12-14b**): medium sensitivity combined with a high magnitude of change resulting in a **major adverse** level of effect;
 - Viewpoint 4 (B1398 Middle Street, above Harpswell) (**Figure 12-14c**): medium sensitivity combined with a medium magnitude of change resulting in a **moderate adverse** level of effect;
 - Viewpoint 7 (B1398 Middle Street, Glentworth Cliff Farm) (**Figure 12-14d**): high sensitivity combined with a low magnitude of change resulting in a **moderate adverse** level of effect;

- f. Viewpoint 9 (Kexby Road, west of Glentworth Grange) (**Figure 12-14e**): high sensitivity combined with a high magnitude of change resulting in a **major adverse** level of effect;
- g. Viewpoint 13 (Public footpath, Millfield, Hemswell) (**Figure 12-14g**): high sensitivity combined with a **low/medium** magnitude of change resulting in a **moderate/major adverse** level of effect;
- h. Viewpoint 19 (Grange Cottage, School Lane, Springthorpe) (**Figure 12-13k**): medium sensitivity combined with a high magnitude of change resulting in a **major adverse** level of effect;
- i. Viewpoint 20 (A631 east of Corringham Windmill) (**Figure 12-14j**): low sensitivity combined with a high magnitude of change resulting in a **moderate adverse** level of effect;
- j. Viewpoint 28 (Yawthorpe) (**Figure 12-13s**): high sensitivity combined with a low magnitude of change resulting in a **moderate adverse** level of effect; and
- k. Viewpoint 29 (Common Lane, west of Billyards Farm) (**Figure 12-13t**): low sensitivity combined with a high magnitude of change resulting in a **moderate adverse** level of effect.

12.8.34 As with the construction phase, and based on the representative viewpoint assessments above, significant visual effects will largely arise for receptors with open, elevated views from the Cliff; or where receptors are in close proximity to the Principal Site where screening is currently limited or absent and new mitigation planting is not yet mature. The very limited number of PRow within or in proximity to the Principal Site contributes to there being relatively fewer significant visual effects overall, in comparison with typical rural areas of comparable extent.

12.8.35 In relation to the Cable Route Corridor, no significant effects are expected for the Operation Year 1 stage.

Assessment of Visual effects: Operation Year 15 (summer)

12.8.36 Mitigation planting will be sufficiently mature to reduce the magnitude of visual effects at Operation Year 15 relative to Operation Year 1 in the majority of cases. Significant effects at Operation Year 15 for the assessed representative viewpoints are summarised as follows:

- a. Viewpoint 7 (B1398 Middle Street, Glentworth Cliff Farm) (**Figure 12-14d**): high sensitivity combined with a low magnitude of change resulting in a **moderate adverse** level of effect;
- b. Viewpoint 9 (Kexby Road, west of Glentworth Grange) (**Figure 12-14e**): high sensitivity combined with a low magnitude of change resulting in a **moderate adverse** level of effect; and
- c. Viewpoint 13 (Public footpath, Millfield, Hemswell) (**Figure 12-14g**): high sensitivity combined with a medium magnitude of change resulting in a **major adverse** level of effect.

12.8.37 Significant visual effects at Operation Year 15 (summer) will largely arise for receptors with open, elevated views from the Cliff where the open, elevated location means that mitigation through screen planting is difficult to achieve.

12.8.38 In relation to the Cable Route Corridor, no significant visual effects are expected at Operation Year 15.

Assessment of Visual effects: Decommissioning (winter)

12.8.39 Activities relating to decommissioning in relation to the Principal Site are likely to be similar to those at construction as a worst-case scenario. Visual effects will be further reduced since Operation Year 15 due to the increased maturity of vegetation and resultant screening. The majority of the Scheme will revert to agriculture, reflecting the wider baseline context. No significant visual effects are expected to arise for the Principal Site at the decommissioning phase.

12.8.40 No significant visual effects are expected for visual receptors during decommissioning stage of the Cable Route Corridor.

Residential amenity

12.8.41 The relationship of RVAA to the visual assessment, with respect to TGN 2/19, is described in Section 12.4. The Principal Site has been designed to reduce visual effects, including set-back from settlements and detailed consideration of panel locations and mitigation planting around individual properties.

12.8.42 TGN 2/19 is intended as guidance, but it notes:

12.8.43 "...development types including potentially very large but lower profile structures and developments such as road schemes and housing are unlikely to require RVAA, except potentially of properties in very close proximity (50-250m) to the development. For example, when assessing effects of overhead transmission lines, generally only those properties within 100 – 150 metres of the finalised route are potentially considered for inclusion in a RVAA".

12.8.44 When making judgements in relation to significant effects for the residential receptors and with reference to the visualisations for Viewpoints 7, 9 and 13 the following should be considered:

- a. Some properties have been designed to take advantage of the expansive, west-facing views from the Cliff, from where visibility of the Scheme will not be substantially reduced by established mitigation planting;
- b. Change will arise due to the lateral extent of the Scheme within panoramic views and the uniform, inorganic nature of the Scheme; with no seasonal changes such as those displayed by the existing arable land use;
- c. With reference to views from Lincoln Cliff, the nearest solar infrastructure is at a considerable distance from receptors, between approximately 1.3km and 1.9km;
- d. The Scheme does not intrude above the skyline, disrupt views through vertical elements, result in any overshadowing or any appreciable change in landform, give rise to significant impacts relating to perceptual change through noise or movement;

- e. Cottam and West Burton coal-fired power stations have been distant but relatively prominent elements in the view for a period similar to that of the expected lifetime of the scheme, often with extensive plumes.

12.8.45 Based on the above, it is concluded that whilst significant effects will arise beyond Operation Year 15 for representative views that reflect the outlook for residential receptors, these will not reach a threshold where residential visual amenity is a consideration.

12.9 Additional Mitigation and Enhancements

12.9.1 The Scheme has undergone a series of iterations to embed mitigation measures into the Scheme design, as set out within **Section 12.7** of this chapter.

12.9.2 The residual significant landscape effects are due to the change in land use and the massing of the panels and associated structures. The residual visual effects are largely for higher-sensitivity receptors such as residents where it is not possible to sufficiently screen expansive views of the site due to elevation on the Cliff. Whilst long term, the residual significant effects will be temporary, it will not be possible to fully mitigate every adverse effect due to the requirements of the Scheme. As such, no additional mitigation is proposed.

12.10 Residual Effects

12.10.1 This section summarises the significant residual effects of the Scheme on landscape and visual receptors following the implementation of embedded mitigation.

12.10.2 Significant residual effects are defined as moderate or major. These are listed in **Table 12-7** and **Table 12-8** below.

Table 12-7: Summary of Significant Residual Effects (construction and decommissioning)

Receptor	Sensitivity (value)	Description of impact	Embedded mitigation measure(s)	Magnitude of impact after mitigation	Residual effect after mitigation
Landscape effects, Construction and Decommissioning: Principal Site					
LLCA 2B: Lincoln Cliff – Harpswell	High	Construction: indirect impacts through perception of adjacent works	Available mitigation measures have been embedded into the Scheme design, Framework CEMP [EN010142/APP/7.8] and the Framework LEMP [EN010142/APP/7.17] .	Construction: Low	Construction: Moderate adverse
LLCA 2C: Lincoln Cliff – Open Farmland	Medium	Construction direct impacts from Access Route 4 and indirect impacts through influence of adjacent works	As above	Construction: Medium	Construction: Moderate adverse
LLCA 3A: Till Vale - Open Farmland	Low	Construction: extensive change across LLCA	As above	Construction: Medium	Construction: Moderate adverse

Landscape effects, Construction and Decommissioning: Principal Site

No significant landscape effects reported for Construction and Decommissioning in relation to the Cable Route Corridor

Visual Effects for Representative Viewpoints, Construction and Decommissioning: Principal Site

Receptor	Sensitivity (value)	Description of impact	Embedded mitigation measure(s)	Magnitude of impact after mitigation	Residual effect after mitigation
VP1 A631, Hemswell Road junction	Low	Construction: noticeable change in the composition of the view	Available mitigation measures have been embedded into the Scheme design, as set out in the Framework CEMP [EN010142/APP/7.8] and the Framework LEMP [EN010142/APP/7.17] .	High	Construction: Moderate adverse
VP2a Common Lane, east of Hermitage Low Farm (looking east)	Medium	Construction: noticeable change in the composition of the view	As above	Medium	Construction: Moderate adverse
VP2b Common Lane, east of Hermitage Low Farm (looking west)	Medium	Construction noticeable change in the composition of the view	As above	High	Construction: Major adverse
VP4 B1398 Middle Street, above Harpswell	Medium	Construction: noticeable change in the composition of the view	As above	Medium	Construction: Moderate adverse
VP7 B1398 Middle Street, Glentworth Cliff	High	Construction: noticeable change in the composition of the view	As above	Low	Construction: Moderate adverse

Receptor	Sensitivity (value)	Description of impact	Embedded mitigation measure(s)	Magnitude of impact after mitigation	Residual effect after mitigation
VP9 Kexby Road, west of Glentworth Grange: junction with bridleway Glw/85/1	High	Construction: noticeable change in the composition of the view	As above	High	Construction: Major adverse
VP13 Public footpath (Hems/787/82), Millfield, Hemswell	High	Construction: noticeable change in the composition of the view	As above	Medium	Construction: Major adverse
VP19 Grange Cottages, School Lane, Springthorpe	Medium	Construction: noticeable change in the composition of the view	As above	Medium	Construction: Moderate adverse
VP20 A631 east of Corringham windmill	Low	Construction: noticeable change in the composition of the view	As above	High	Construction: Moderate adverse
VP28 Yawthorpe	High	Construction: noticeable change in the composition of the view	As above	Low	Construction: Moderate adverse
VP29 Common Lane west of Billyards Farm	Low	Construction: noticeable change in the composition of the view	As above	High	Construction: Moderate adverse

Receptor	Sensitivity (value)	Description of impact	Embedded mitigation measure(s)	Magnitude of impact after mitigation	Residual effect after mitigation
Visual Effects, Construction: Cable Route Corridor					
VP CRC6 Footpath (Bram66/1/) south of Trent Port, Marton	Medium	Construction and decommissioning: noticeable change in the composition of the view; site access along PRow	As above	Medium	Construction: Moderate adverse
VP CRC7 Trent Valley Way, Cottam	Medium	Construction and decommissioning: noticeable change in the composition of the view	As above	Medium	Construction: Moderate adverse

Table 12-8: Summary of Significant Residual Effects (operation)

Receptor	Sensitivity (value)	Description of impact	Embedded mitigation measure(s)	Magnitude of impact after mitigation	Residual effect after mitigation
Landscape Effects, Operation: Principal Site					
LLCA 2B: Lincoln Cliff – Harpswell	High	Operation Year 1 (winter): indirect impacts through influence of adjacent Scheme	Available mitigation measures have been embedded into the Scheme design.	Operation Year 1 (winter): Low	Operation Year 1 (winter): Moderate adverse

Receptor	Sensitivity (value)	Description of impact	Embedded mitigation measure(s)	Magnitude of impact after mitigation	Residual effect after mitigation
LLCA 3A: Till Vale - Open Farmland	Low	Operation Year 1 (winter) and Operation Year 15 (summer): extensive change across LLCA	As above	Operation Year 1 (winter): High Operation Year 15 (summer): High	Operation Year 1 (winter): Moderate adverse Operation Year 15 (summer): Moderate adverse

Landscape Effects, Operation: Cable Route Corridor

No significant landscape effects reported for operation in relation to the Cable Route Corridor

Visual Effects for Representative Viewpoints, Operation: Principal Site

VP1 A631, Hemswell Road junction	Low	Operation Year 1 (winter): noticeable change in the composition of the view	Available mitigation measures have been embedded into the Scheme design	Operation Year 1 (winter): High	Operation Year 1 (winter): Moderate adverse
VP2a Common Lane, east of Hermitage Low Farm (looking east)	Medium	Operation Year 1 (winter): noticeable change in the composition of the view	As above	Operation Year 1 (winter): Medium	Operation Year 1 (winter): Moderate adverse
VP2b Common Lane, east of Hermitage Low Farm (looking west)	Medium	Operation Year 1 (winter): noticeable change in the composition of the view	As above	Operation Year 1 (winter): High	Operation Year 1 (winter): Major adverse

Receptor	Sensitivity (value)	Description of impact	Embedded mitigation measure(s)	Magnitude of impact after mitigation	Residual effect after mitigation
VP4 B1398 Middle Street, above Harpswell	Medium	Operation Year 1 (winter): noticeable change in the composition of the view	As above	Operation Year 1 (winter): Medium	Operation Year 1 (winter): Moderate adverse
VP7 B1398 Middle Street, Glentworth Cliff	High	Operation Year 1 (winter) and Operation Year 15 (summer): noticeable change in the composition of the view	Year 1 - As above Year 15 - Available mitigation measures have been embedded into the Scheme design. Framework LEMP [EN01042/APP/7.17]	Operation Year 1 (winter): Low Operation Year 15 (summer): Low	Operation Year 1 (winter): Moderate adverse Operation Year 15 (summer): Moderate adverse
VP9 Kexby Road, west of Glentworth Grange: junction with bridleway Gltw/85/1	High	Operation Year 1 (winter) and Operation Year 15 (summer): noticeable change in the composition of the view	Year 1 - As above Year 15 – As above	Operation Year 1 (winter): High Operation Year 15 (summer): Low	Operation Year 1 (winter): Major adverse Operation Year 15 (summer): Moderate adverse
VP13 Public footpath (Hems/787/82), Millfield, Hemswell	High	Operation Year 1 (winter) and Operation Year 15 (summer): noticeable change in the composition of the view	Year 1 - As above Year 15 – As above	Operation Year 1 (winter): Medium Operation Year 15 (summer): Medium	Operation Year 1 (winter): Major adverse Operation Year 15 (summer): Major adverse

Receptor	Sensitivity (value)	Description of impact	Embedded mitigation measure(s)	Magnitude of impact after mitigation	Residual effect after mitigation
VP19 Grange Cottages, School Lane, Springthorpe	Medium	Operation Year 1 (winter): noticeable change in the composition of the view	As above	Operation Year 1 (winter): High	Operation Year 1 (winter): Major adverse
VP20 A631 east of Corringham windmill	Low	Operation Year 1 (winter): noticeable change in the composition of the view	As above	Operation Year 1 (winter): High	Operation Year 1 (winter): Moderate adverse
VP28 Yawthorpe	High	Operation Year 1 (winter): noticeable change in the composition of the view	As above	Operation Year 1 (winter): Low	Operation Year 1 (winter): Moderate adverse
VP29 Common Lane, West of Billyards Farm	Low	Operation Year 1 (winter): noticeable change in the composition of the view	As above	Operation Year 1 (winter): High	Operation Year 1 (winter): Moderate adverse

Visual Effects, Operation: Cable Route Corridor

No significant visual effects reported for operation in relation to the Cable Route Corridor

12.11 Cumulative Effects

- 12.11.1 An assessment of cumulative effects is presented in **Chapter 18: Cumulative Effects and Interactions** of this ES [EN010142/APP/6.1].

12.12 References

- Ref. 12-1. Landscape Institute and the Institute of Environmental Management and Assessment. (2013). Guidelines for Landscape and Visual Impact Assessment 3rd Edition.
- Ref. 12-2. Landscape Institute (2019). Residential Visual Amenity Assessment. Technical Guidance Note 2/19. Available at:
[REDACTED]
[REDACTED]
- Ref. 12-3. Central Lincolnshire Joint Strategic Planning Committee (2023). Central Lincolnshire Local Plan (2023)
- Ref. 12-4. English Heritage and Lincolnshire County Council (2011). The Historic Character of the County of Lincolnshire (The Historic Landscape Characterisation Project for Lincolnshire). Available at:
<https://www.lincolnshire.gov.uk/downloads/file/2205/the-historic-character-of-lincolnshire-pdfa>
- Ref. 12-5. Glentworth Parish Council (2019). Glentworth Neighbourhood Plan 2018-2036. Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-02/Glentworth%20Neighbourhood%20Plan%20%28Approved%20Plan%29%20Rev%201.1%20%28for%20publication%29.pdf>
- Ref. 12-6. Hemswell Parish Council (2022). Hemswell and Harpswell Neighbourhood Plan 2022 -2036. Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-02/Hemswell%20and%20Harpswell%20Neighbourhood%20Plan.pdf>
- Ref. 12-7. Historic England (1985). Official List Entry: Fillingham Castle Registered Park and Garden. Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1000977?section=official-list-entry>
- Ref. 12-8. Natural England (201) NCA Profile: 45 North Lincolnshire Edge with Coversands. Available at: <http://publications.naturalengland.org.uk/publication/4635967306596352>
- Ref. 12-9. Natural England (2013) NCA Profile: 48: Trent and Belvoir Vales. Available at: <http://publications.naturalengland.org.uk/publication/7030006>
- Ref. 12-10. Natural England (2010). East Midlands Regional Landscape Character Assessment. Available at: <http://publications.naturalengland.org.uk/publication/5635681403535360>
- Ref. 12-11. West Lindsey District Council (1999). West Lindsey Landscape Character Assessment. Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-02/West%20Lindsey%20Landscape%20Character%20Assessment%20Part%201.pdf>
- Ref. 12-12. Bassetlaw District Council (2009). Bassetlaw Landscape Character Assessment (2009). Available at: <https://www.bassetlaw.gov.uk/planning-and-building/planning-services/planning-policy/core-strategy-and-development-policies/core-strategy-adopted-development-plan/submission-documents/landscape-character-assessments-study/>

- Ref. 12-13. Corringham Parish Council (2021). Corringham Neighbourhood Plan 2021 to 2036 (Referendum Version October 2021). Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-02/Corringham%20NP%20Referendum%20Version.pdf>
- Ref. 12-14. Carroll Planning + Design (2019). Corringham Character Assessment (2019). Available at: https://www.west-lindsey.gov.uk/sites/default/files/2022-02/11.%20Corringham%20NHP%20Character%20Assessment%20UPDATED%20FINAL%20low%20res%2012%2002%202021OSR_Optimized.pdf
- Ref. 12-15. OpenPlan Consultants Ltd (2017). Glentworth Neighbourhood Character Profile. Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-02/1.2%20-%20Glentworth%20Neighbourhood%20Plan%20Attachment%202%20-%20Neighbourhood%20Character%20Profile%20Report.pdf>
- Ref. 12-16. Carroll Planning + Design (2018). Hemswell and Harpswell Character Assessment. Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-02/Hemswell%20Character%20Assessment%20redacted.pdf>
- Ref. 12-17. Ingham Neighbourhood Plan Steering Group and Open Plan Consultants Ltd. (2020). Ingham Neighbourhood Plan: Neighbourhood Profile (draft). Available at: <https://ingham.parish.lincolnshire.gov.uk/downloads/file/44/draft-neighbourhood-profile>
- Ref. 12-18. Sturton by Stow Parish Council and Stow Parish Council (2022). Sturton by Stow and Stow Neighbourhood Plan. Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-04/Sturton%20by%20Stow%20and%20Stow%20Neighbourhood%20Plan%20Final%20Approved%20Version.pdf>
- Ref. 12-19. Sturton by Stow and Stow Neighbourhood Plan Steering Group and OpenPlan Consultants Ltd. (2019). Sturton by Stow and Stow Neighbourhood Plan: Neighbourhood Profile <https://www.west-lindsey.gov.uk/sites/default/files/2022-04/Sturton%20by%20Stow%20and%20Stow%20Neighbourhood%20Profile%20V7.pdf>
- Ref. 12-20. Sturton by Stow and Stow Neighbourhood Plan Steering Group and OpenPlan Consultants Ltd. (2019). Sturton by Stow and Stow Neighbourhood Plan 2019-2036 Neighbourhood Profile: Appendix 1: Enlarged A1 Character Area Maps. Available at: https://www.west-lindsey.gov.uk/sites/default/files/2022-04/Sturton%20by%20Stow%20and%20Stow%20NP%20Appendix%201-%20Enlarged%20Maps%20V2_0.pdf
- Ref. 12-21. Sturton by Stow and Stow Neighbourhood Plan 2019-2036 Neighbourhood Profile: Appendix 2 – Supplementary Photographs and Views. Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-04/Sturton%20by%20Stow%20and%20Stow%20Appendix%202-Supplementary%20Photographs%20and%20Views%20V2.pdf>

- Ref. 12-22. Sturton by Stow and Stow Neighbourhood Plan Steering Group and OpenPlan Consultants Ltd. (2019). Sturton by Stow and Stow Neighbourhood Plan 2019-2036 Protected Views Assessment. Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-02/Sturton%20by%20Stow%20and%20Stow%20Reg%2016%20Protected%20Views%20Assessment%20G.pdf>
- Ref. 12-23. Treswell and Cottam Parish Council (2022). Treswell with Cottam Neighbourhood Plan (Review Version 2022). Available at: <https://www.bassetlaw.gov.uk/media/6713/treswell-with-cottam-review-pre-submission-draft-np.pdf>
- Ref. 12-24. Treswell and Cottam Parish Council (2018). Treswell with Cottam Character Assessment. Available at: <https://www.bassetlaw.gov.uk/media/3269/treswell-plus-cottam-character-summary-final.pdf>
- Ref. 12-25. Rampton and Woodbeck Neighbourhood Plan 2019-2037 (2019). Bassetlaw District Council. Available at <https://www.bassetlaw.gov.uk/media/6194/rampton-woodbeck-02-neighbourhood-plan-final.pdf>
- Ref. 12-26. Rampton and Woodbeck Character Assessment (2019). Carrol Planning and Design. Available at <https://www.bassetlaw.gov.uk/media/4877/rampton-character-assessment.pdf>
- Ref. 12-27. West Lindsey District Council (1985). Hemswell Conservation Area Appraisal. Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-02/Hemswell%20Conservation%20Area%20Appraisal.pdf>
- Ref. 12-28. West Lindsey District Council (1993). Glentworth Conservation Area Appraisal. Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-02/Glentworth%20Conservation%20Area%20Appraisal.pdf>
- Ref. 12-29. West Lindsey District Council (1993). Fillingham Conservation Area Appraisal. Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-02/Fillingham%20Conservation%20Area%20Appraisal.pdf>
- Ref. 12-30. West Lindsey District Council (1971). Ingham Conservation Area Appraisal. Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-02/Ingham%20Conservation%20Area%20Appraisal.pdf>
- Ref. 12-31. West Lindsey District Council Springthorpe Conservation Area Appraisal (1985). Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2022-02/Springthorpe%20Conservation%20Area%20Appraisal.pdf>
- Ref. 12-32. Tudor, C. (2014). An Approach to Landscape Character Assessment. Natural England. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/691184/landscape-character-assessment.pdf

Ref. 12-33. Landscape Institute (2021). Assessing Landscape Value Outside National Designations – Technical Guidance Note 02/21. Available at:

[REDACTED]
[REDACTED]
[REDACTED]

Ref. 12-34. Landscape Institute (2019). Visual Representation of Development Proposals - Technical Guidance Note 06/19. Available at:

[REDACTED]
[REDACTED]
[REDACTED]

Ref. 12-35. Clarke, J. (2013). 'High Merit': Existing English Post-War Coal and Oil Fired Power Stations in Context. Historic England. Available at:

https://historicengland.org.uk/research/results/reports/7065/HighMerit_ExistingEnglishPost-WarCoalandOil-FiredPowerStationsinContext