

Steeple Renewables Project

Chapter 6 : Landscape and Visual Impact and Residential Amenity

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Chapter 6: Landscape and Visual Impact and Residential Amenity

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6. Landscape and Visual Impact and Residential Amenity

6.1 Introduction

6.1.1 This chapter seeks to determine the landscape and visual effects of the Proposed Development and whether such effects would be significant or not.

6.1.2 This chapter considers the effects on:

- Landscape Features;
- Landscape Designations;
- Landscape Character; and
- Visual Amenity.

6.1.3 This chapter is supported by the following figures:

- **Figure 6.1 - Site Location Plan [EN010163/APP/6.4.6]**
- **Figure 6.2 - Landscape Designations [EN010163/APP/6.4.6]**
- **Figure 6.3 – Topography [EN010163/APP/6.4.6]**
- **Figure 6.4 - Landscape Character Areas [EN010163/APP/6.4.6]**
- **Figure 6.5a – Visual Receptors (Settlements, A Roads, B Roads and Long Distance Routes) [EN010163/APP/6.4.6]**
- **Figure 6.5b – Visual Receptors (Settlements, A Roads, B Roads and PROW) [EN010163/APP/6.4.6]**
- **Figure 6.5c – Visual Receptors (Settlements, A Roads, B Roads and Minor Roads) [EN010163/APP/6.4.6]**
- **Figure 6.6a Screened Zone of Theoretical Visibility (SZTV) and viewpoint (VP) Locations (10km radius) [EN010163/APP/6.4.6]**
- **Figure 6.6b SZTV and VP Locations (5km radius) [EN010163/APP/6.4.6]**
- **Figure 6.6c SZTV and VP Locations (2km radius) [EN010163/APP/6.4.6]**
- **Figure 6.7 SZTV and Landscape Character [EN010163/APP/6.4.6]**

- **Figure 6.8a SZTV and Visual Receptors (Settlements, A Roads, B Roads and Long Distance Routes) [EN010163/APP/6.4.6]**
- **Figure 6.8b SZTV and Visual Receptors (Settlements, A Roads, B Roads and PROW) [EN010163/APP/6.4.6]**
- **Figure 6.8c SZTV and Visual Receptors (Settlements, A Roads, B Roads and Minor Roads) [EN010163/APP/6.4.6]**
- **Figure 6.9 Landscape and Ecological Mitigation Strategy [EN010163/APP/6.4.6]**

6.1.4 This chapter also is supported by the following appendices:

- **Appendix 6.1 - Viewpoint Photographs [EN010163/APP/6.3.6]**
- **Appendix 6.2 – Photomontages [EN010163/APP/6.3.6]**
- **Appendix 6.3 – Viewpoint Assessment [EN010163/APP/6.3.6]**
- **Appendix 6.4 – Residential Visual Amenity Assessment [EN010163/APP/6.3.6]**
- **Appendix 6.5 – Arboricultural Impact Assessment [EN010163/APP/6.3.6]**
- **Appendix 6.6 – Assessment of Public Rights of Way [EN010163/APP/6.3.6]**

6.1.5 This assessment has been undertaken by Chartered Landscape Architects at Pegasus Group who are experienced in the assessment of landscape and visual effects of energy developments and are familiar with the local landscape. **See Appendix 1.4 -EIA Statement of Competence [EN010163/APP/6.3.1]** for details on the lead author.

6.2 Legislation and Planning Policy

6.2.1 Legislation and planning policy of relevance to the landscape and visual Chapter includes the following.

- National Policy Statement for Energy (NPS EN-1)¹;
- National Policy Statement for Renewable Energy Infrastructure (NPS EN-3)²;

¹ Department for Energy Security and Net Zero (2023) Overarching National Policy Statement for Energy (EN-1) [online] available.

² Department for Energy Security and Net Zero (2023) National Policy Statement for Renewable Energy Infrastructure (EN-3) [online] available.

- National Policy Statement for Electricity Networks Infrastructure (NPS EN-5)³;
- Bassetlaw Local Plan 2020-2038⁴; and
- Sturton Ward Neighbourhood Plan 2021 – 2037.⁵

6.2.2 Further detail regarding the landscape and visual matters set out in these documents is set out below.

National Policy Statement for Energy (NPS-EN-1); National Policy Statement for Renewable Energy Infrastructure (NPS EN-3); and National Policy Statement for Electricity Networks Infrastructure (NPS EN-5)

6.2.3 The ‘Overarching’ NPS for Energy EN-1 sets out how the energy sector can help deliver the Government’s climate change objectives by clearly stating the need for new low carbon energy infrastructure to contribute to climate change mitigation. Regarding landscape and visual matters, NPS EN-1 sets out at paragraph 5.10.5 that *‘Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation’*. NPS EN-1 goes on to state at paragraph 5.10.6 that *‘Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate’*. Notwithstanding this, at paragraph 5.10.13 NPS EN-1 states that *‘All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites’*, before noting at paragraph 5.10.14 that *‘The Secretary of State will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project’*.

6.2.4 NPS EN-3 should be read in conjunction with NPS EN-1, which emphasises the Government’s commitment to sustained growth in solar capacity to ensure that the

³ Department for Energy Security and Net Zero (2023) National Policy Statement for Electricity Networks Infrastructure (EN-5) [online] available

⁴ Bassetlaw Local Plan 2020-2038, Bassetlaw District Council, 2024

⁵ Sturton Ward Neighbourhood Plan Review 2021-2037, Sturton Ward Planning Group

UK is 'on a pathway' that allows it to meet net zero emissions. Regarding landscape and visual matters, NPS EN-3 sets out at paragraph 2.10.94 that *'Solar farms are likely to be in low lying areas of good exposure and as such may have a wider zone of visual influence than other types of onshore energy infrastructure'*, but goes on to note at paragraph 2.10.95 that *'whilst it may be the case that the development covers a significant surface area, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography, the area of a zone of visual influence could be appropriately minimised'*. NPS EN-3 further states at paragraph 2.10.100 that *'The applicant should consider as part of the design, layout, construction, and future maintenance plans how to protect and retain, wherever possible, the growth of vegetation on site boundaries, as well as the growth of existing hedges, established vegetation, including mature trees within boundaries. Applicants should also consider opportunities for individual trees within the boundaries to grow on to maturity'*.

- 6.2.5 NPS EN-5 should be read in conjunction with NPS EN-1 and NPS EN-3 and is concerned with the impacts and other matters that are specific to electricity networks infrastructure. Regarding landscape and visual matters, NPS EN-5 discusses The Horlock Rules, a series of guidelines for the design and siting of substations which were established by National Grid in 2009. In particular, paragraph 2.9.19 notes that applicants should *'protect as far as reasonably practicable areas of local amenity value, important existing habitats and landscape features including ancient woodland, historic hedgerows, surface and ground water sources and nature conservation areas'* and also *'take advantage of the screening provided by land form and existing features and the potential use of site layout and levels to keep intrusion into surrounding areas to a reasonably practicable minimum'*.

Bassetlaw Local Plan 2020-2038

- 6.2.6 Relevant policies from the Bassetlaw Local Plan concerning landscape and visual matters include: Policy ST35: Landscape Character; Policy ST37: Green and Blue Infrastructure; Policy 39: Trees, Woodlands and Hedgerows; Policy 46: Protecting Amenity; and Policy ST49: Renewable Energy Generation.
- 6.2.7 Policy ST35: Landscape Character sets out that *'Proposals that contribute to the nature and quality of Bassetlaw's landscapes will be supported where it can be demonstrated that – a) 'it protects and where possible enhances the distinctive*

- qualities of the relevant landscape character policy zone, as identified in the Bassetlaw Landscape Character Assessment 20096 by conserving, restoring, reinforcing or creating relevant landscape forms and features’.*
- 6.2.8 Policy ST37: Green and Blue Infrastructure sets out that *‘The connectivity, quality, multifunctionality, biodiversity and amenity value of the green and blue infrastructure network will be enhanced, extended and managed’.*
- 6.2.9 Policy 39: Trees Woodlands and Hedgerows sets out that *‘The Council will protect existing trees, woodland and hedgerows and secure additional planting that increases canopy cover in the interests of biodiversity, amenity and climate change adaptation’.*
- 6.2.10 Policy 46: Protecting Amenity sets out that *‘Proposals for development should be designed and constructed to avoid and minimise impacts on the amenity of existing and future users, individually and cumulatively, within the development and close to it’.*
- 6.2.11 Policy ST49: Renewable Energy Generation sets out that *‘Development that generates, shares, transmits and/or stores zero carbon and/or low carbon renewable energy including community energy schemes will be supported subject to the satisfactory resolution of all relevant site specific and cumulative impacts upon (inter alia): a) location, setting and position in the wider landscape, resulting from its siting and scale’.* It goes on to note that *‘Proposals must take into account operational and approved developments, as well as any proposed intensification to operational or approved proposals’.*

Sturton Ward Neighbourhood Plan 2021 – 2037

- 6.2.12 Relevant policies from the Sturton Ward Neighbourhood Plan concerning landscape and visual matters include: Policy 2a: Protecting the Landscape Character, Significant Green Gaps and Key Views; Policy 2b: Enhancing Biodiversity; and Policy 5: Design Principles.
- 6.2.13 Policy 2a: Protecting the Landscape Character sets out that *‘As appropriate to their scale, nature and location, development proposals should protect the positive attributes of the open countryside and landscape character as identified within the Bassetlaw Landscape Character Assessment and the Sturton Ward Design Code 2020. Where appropriate, mitigation planting should include native species recommended*

for the Mid Nottinghamshire Farmlands or Trent Washlands character areas'. It goes on to state that 'Development proposals should respect the views highlighted on Maps 5a, 5b and 5c by careful attention to their layout, massing and height. Development proposals which would have an unacceptable impact on the identified views will not be supported'. Furthermore it notes that 'Development proposals (excluding householder development), should demonstrate they have regard to the guidance in the Sturton Ward Design Code (2020) and where practicable: a) retain existing trees and hedges; and b) use strong planting belts that run horizontal with the contours on sites close to the existing built form; and c) maintain the natural flow of water through water courses and prevent surface water from being connected to the foul sewerage network'.

6.2.14 Policy 2b: Enhancing Biodiversity sets out that 'Proposals which would improve existing environmental assets and enhance biodiversity will be supported. The following enhancements will be particularly supported (inter alia): a) strengthening hedgerows (gapping up), field boundaries and maintaining the natural flow of water through water courses to provide more robust blue-green habitat 'corridors'; and b) planting wildflower meadows and strips; and c) encouraging native tree and shrub planting on suitable sites, especially species that provide good berry or nectar sources; and c) encouraging native tree and shrub planting on suitable sites, especially species that provide good berry or nectar sources'.

6.2.15 Policy 5: Design Principles sets out that 'As appropriate to their scale, nature and location, development proposals should demonstrate a high design quality that will contribute positively to the character of the Ward and respond positively to the Sturton Ward Design Code (Appendix I)'. It also states that 'As appropriate to their scale, nature and location, development proposals should (inter alia): a) respond to the local character of both the surrounding area and immediately adjoining neighbouring properties; and d) use native trees and hedgerows where possible in landscaping schemes and boundary treatments'.

6.3 Assessment Methodology

6.3.1 It is acknowledged from the outset that, in common with almost all commercial energy development proposals, some landscape and visual effects would occur as a result of the Proposed Development.

- 6.3.2 A key principle of the European Landscape Convention⁶ is that all landscapes matter and should be managed appropriately. It is also acknowledged that landscapes provide the surroundings for people's daily lives and often contribute positively to the quality of life and economic performance of an area.
- 6.3.3 An assessment of LVIA has therefore been undertaken, with its findings reported in this landscape and visual chapter of the ES. This chapter provides an assessment of the Proposed Development, based on the parameters set out in **Chapter 4- Proposed Development [EN010163/APP/6.2.4]** .
- 6.3.4 The main objectives of the LVIA were as follows:
- To identify, evaluate and describe the current landscape character of the Site and its surroundings and also any notable individual or groups of landscape features within the Site;
 - To determine the sensitivity of the landscape to the type of development proposed;
 - To identify potential visual receptors (i.e. people that would be able to see the Proposed Development) and evaluate their sensitivity to the type of changes proposed;
 - To identify and describe any impacts of the Proposed Development in so far as they affect the landscape and/or views of it and evaluate the magnitude of change due to these impacts;
 - To identify and assess any cumulative landscape and visual effects;
 - To identify and describe mitigation measures that have been adopted to avoid, reduce and compensate for landscape and visual effects; and
 - To evaluate the level of residual landscape and visual effects.
- 6.3.5 This Chapter provides an assessment in relation to these matters.

Published LVIA Guidance

- 6.3.6 The assessment has been undertaken in accordance with the principles of best practice, as outlined in published guidance documents, notably the third edition of the Guidelines for Landscape and Visual Assessment (GLVIA3)⁷.

⁶ The Council of Europe Landscape Convention ([ETS No. 176](#)), as amended by the 2016 Protocol ([CETS No. 219](#))

⁷ Guidelines for Landscape and Visual Assessment (GLVIA3), Landscape Institute and the Institute for Environmental Management and Assessment, 2013

- 6.3.7 It should be acknowledged that GLVIA3 establishes guidelines, not a specific methodology. The preface to GLVIA3 states:

‘This edition concentrates on principles and processes. It does not provide a detailed or formulaic ‘recipe’ that can be followed in every situation – it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand.’

- 6.3.8 The approach has therefore been developed specifically for this assessment to ensure that the methodology is fit for purpose.

- 6.3.9 It is noted that in August 2024 the Landscape Institute issued a Technical Guidance Note [reference LITGN-2024-01] titled ‘Notes and Clarifications on aspects of the 3rd edition of the Guidelines for Landscape and Visual Assessment (GLVIA3)’⁸, which included some errata in relation to GLVIA3. Where relevant these notes and clarifications have been considered in the preparation of the LVIA. It is of note that the Technical Guidance Note reiterates that the purpose of LVIA is *‘to explain which aspects of landscape and visual change are more important to the decision to be made (and why). Achieving this outcome is more fundamental to good LVIA than the detailed mechanics of specific assessment methodologies’*.

Distinction between Landscape and Visual Effects

- 6.3.10 In accordance with the published guidance, landscape and visual effects have been assessed separately, although the procedure for assessing each of these is closely linked. A clear distinction has been drawn between landscape and visual effects as described below:

- Landscape effects relate to the effects of the Proposed Development on the physical and perceptual characteristics of the landscape and its resulting character and quality; and
- Visual effects relate to the effects on specific views experienced by visual receptors and on visual amenity more generally.

Assessment Criteria

- 6.3.11 This section presents the assessment criteria which underpin the judgements set out in this Chapter of the ES.

⁸ Landscape Institute issued a Technical Guidance Note [reference LITGN-2024-01] - Notes and Clarifications on aspects of the 3rd edition of the Guidelines for Landscape and Visual Assessment (GLVIA3), 2024

- 6.3.12 As set out above, the primary source of best practice for LVIA in the UK is GLVIA3. The assessment criteria adopted to inform the assessment of effects has been developed in accordance with the principles established in this best practice document. It should however be acknowledged that GLVIA3 establishes guidelines not a specific methodology.
- 6.3.13 The criteria set out below have therefore been developed specifically for this assessment to ensure that the methodology is appropriate and fit for purpose.
- 6.3.14 The purpose of an LVIA when undertaken in the context of an Environmental Impact Assessment (EIA) is to identify and describe any likely significant landscape and visual effects arising as a result of the proposals.
- 6.3.15 An LVIA must consider both:
- *effects on the landscape as a resource in its own right (the landscape effects); and*
 - *effects on specific views and visual amenity more generally (the visual effects).*
- 6.3.16 Therefore, separate criteria are set out below for the assessment of landscape and visual effects.
- Nature (sensitivity) of landscape features*
- 6.3.17 The nature or sensitivity of an individual landscape feature or element reflects its susceptibility to change and its value. It is therefore a function of factors such as its quality, rarity, contribution to landscape character, degree to which the particular element can be replaced and cultural associations or designations that apply. A particular feature may be more ‘sensitive’ in one location than in another often as a result of local values associated with the feature or in relation to its function as a key or distinctive characteristic of that local landscape. Therefore it is not possible to simply place different types of landscape features into sensitivity bands. Where individual landscape features are affected, professional judgement is used as far as possible to give an objective evaluation of its sensitivity. Justification is given for this evaluation where necessary.
- 6.3.18 Both the susceptibility and value of individual landscape features has been described as very high, high, medium, low or very low. These are then combined in order to establish an overall nature or sensitivity of individual landscape features which has also been described as **very high, high, medium, low or very low**.

Nature (sensitivity) of landscape character

- 6.3.19 Sensitivity of landscape character is also assessed through a consideration of both the susceptibility to a development of the type proposed and the value attached to the landscape. In the case of the potential for effects on landscape character, susceptibility means the ability to accommodate the proposed development without undue consequences for the existing characteristics of the site. What is meant by the value of the landscape in a Landscape and Visual Impact Assessment is the relative value that is attached to the landscape by society as a whole, bearing in mind that different stakeholders may have differing values regarding any given landscape. Paragraphs 5.20 and Box 5.1 of GVLIA set out a range of factors that can contribute to an understanding landscape value. Consideration of whether there are any formal landscape designations covering a landscape is one element of considering the value, but also relevant is the condition of the landscape, its rarity in the local area, the recreational value it provides, and any ecological or heritage importance the landscape may hold. These are considered alongside its perceptual qualities (such as tranquillity) and any associations which may be held with the landscape, such as if it has been highlighted in art, music or poetry. Further clarification on how to consider the matter of landscape value is set out in the Landscape Institute Technical Guidance Note (02/21) ‘Assessing the Value of Landscapes Outside National Designations’⁹.
- 6.3.20 In this appraisal, the nature or sensitivity of landscape character is considered with reference to published landscape character areas/types and where relevant local landscape units as defined for the purposes of this study. Information regarding the key characteristics of these local character areas/units has been extrapolated from relevant published studies where possible and combined with observations from on-site appraisal with judgments undertaken employing professional judgement.
- 6.3.21 Both the susceptibility and value of landscape character has been described as very high, high, medium, low or very low. These are then combined in order to establish an overall nature or sensitivity of landscape character which has also been described as **very high, high, medium, low or very low**.

⁹ Landscape Institute Technical Guidance Note (02/21) - Assessing the Value of Landscapes Outside National Designations

Nature (sensitivity) of visual receptors

6.3.22 The nature or sensitivity of visual receptor groups reflects their susceptibility to change and the value associated with the specific view in question. Sensitivity varies depending on a number of factors such as the occupation of the viewer, their viewing expectations, duration of view and the angle or direction in which they would see the site. Whilst most views are valued by someone, certain viewpoints are particularly highly valued for either their cultural or historical associations and this can increase the sensitivity of the view. The following criteria are provided for guidance only and are not exclusive:

- **Very Low Sensitivity** – *People engaged in industrial and commercial activities or military activities.*
- **Low Sensitivity** - *People at their place of work (e.g. offices); shoppers; users of trunk/major roads and passengers on commercial railway lines (except where these form part of a recognised and promoted scenic route).*
- **Medium Sensitivity** - *Users of public rights of way and minor roads which do not appear to be used primarily for recreational activities or the specific enjoyment of the landscape; recreational activities not specifically focused on the landscape (e.g. football); motel users.*
- **High Sensitivity** – *Residents at home; users of long distance or recreational trails and other sign posted walks; users of public rights of way and minor roads which appear to be used for recreational activities or the specific enjoyment of the landscape; users of caravan parks, campsites and ‘destination’ hotels; tourist attractions with opportunities for views of the landscape (but not specifically focused on a particular vista); slow paced recreational activities which derive part of their pleasure from an appreciation of setting (e.g. bowling, golf); allotments.*
- **Very High Sensitivity** - *People at recognised vantage points (often with interpretation boards), people at tourist attractions with a focus on a specific view, visitors to historic features/estates where the setting is important to an appreciation and understanding of cultural value.*

6.3.23 It is important to appreciate that it is the visual receptor (i.e. the person) that has a sensitivity and not a property, public right of way or road. Also, the sensitivity of a

receptor group is not influenced by the number of receptors. As an example, although many people may use a motorway, this does not increase the sensitivity of each receptor using it. Likewise, a residential property may only have one person living in it but this does not reduce the sensitivity of that one receptor. Whilst the number of receptors affected at any given location may be a planning consideration, for the purposes of this assessment it does not alter the sensitivity of the receptor group.

- 6.3.24 Where judgements are made about the sensitivity of assessment viewpoints, the sensitivity rating provided is an evaluation of the sensitivity of the receptor group represented by the viewpoint and not a reflection of the number of people who may experience the view.

Nature (magnitude) of effects – General note

- 6.3.25 The following discussion sets out the approach adopted in this LVIA in relation to a specific issue arising in GLVIA3 which requires a brief explanation.
- 6.3.26 Prior to the publication of GLVIA3, LVIA practice had evolved over time in tandem with most other environmental disciplines to consider the level of effect (relative significance) principally as a function of two factors, namely: sensitivity of the receptor and magnitude of the effect (the term ‘magnitude’ being a word most commonly used in LVIA and most other environmental disciplines to describe the size or scale of an effect).
- 6.3.27 Box 3.1 on page 37 of GLVIA3 references a 2011 publication by IEMA entitled ‘The State of EIA Practice in the UK’¹⁰ which reiterates the importance of considering not just the scale or size of effect but other factors which combine to define the ‘nature of the effect’ including factors such as the probability of an effect occurring and the duration, reversibility and spatial extent of the effect.
- 6.3.28 The flow diagram on page 39 of GLVIA3 suggests that the magnitude of effect is a function of three factors (the size/scale of the effect, the duration of the effect and the reversibility of the effect).
- 6.3.29 For certain types of development (e.g. residential) the proposed development is permanent and non-reversible. For other types of development (e.g. wind and solar energy) the proposed development is for a time-limited period and would be largely reversible at the end of the scheme’s operational period. Reversibility of a proposed

¹⁰ The State of EIA Practice in the UK, IEMA, 2011

development is a material consideration in the planning balance but does not reduce the scale of the effect (i.e. the ‘magnitude’ in the traditional and commonly understood sense of the word) during the period in which the scheme is operational. In this regard, it would be incorrect to report a lesser magnitude of change to a landscape or view as a result of a time-limited effect or the relative reversibility of the effect.

6.3.30 For clarification, the approach taken in this LVIA has been to consider magnitude of effect solely as the scale or size of the effect in the traditional sense of the term ‘magnitude’. Having identified the magnitude of effect as defined above, the LVIA also describes the duration and reversibility of the identified effect, taking these factors into account as appropriate in the consideration of the level (relative significance) of the effect.

6.3.31 In the context of the above discussion the following criteria have been adopted to describe the magnitude of effects.

Nature (magnitude) of effects on landscape features

6.3.32 Professional judgement has been used as appropriate to determine the magnitude of direct physical effects on individual existing landscape features using the following criteria as guidance only:

- **Very Low Magnitude of Change** - Negligible loss or alteration to existing landscape features;
- **Low Magnitude of Change** - Minor loss or alteration to part of an existing landscape feature;
- **Medium Magnitude of Change** - Some loss or alteration to part of an existing landscape feature; and
- **High Magnitude of Change** - Major loss or major alteration to an existing landscape feature.
- **Very High Magnitude of Change** - Total loss or alteration to an existing landscape feature.

Nature (magnitude) of effects on landscape character

6.3.33 The magnitude of effect on landscape character is influenced by a number of factors including: the extent to which existing landscape features are lost or altered, the

introduction of new features and the resulting alteration to the physical and perceptual characteristics of the landscape. Professional judgement has been used as appropriate to determine the magnitude using the following criteria as guidance only. In doing so, it is recognised that usually the landscape components in the immediate surroundings have a much stronger influence on the sense of landscape character than distant features whilst acknowledging the fact that more distant features can have an influence on landscape character as well.

- **Very Low Magnitude of Change** - *Negligible loss or alteration to existing landscape features; no notable introduction of new features into the landscape; and negligible change to the key physical and/or perceptual attributes of the landscape.*
- **Low Magnitude of Change** - *Minor loss or alteration to existing landscape features; introduction of minor new features into the landscape; or minor alteration to the key physical and/or perceptual attributes of the landscape.*
- **Medium Magnitude of Change** - *Some notable loss or alteration to existing landscape features; introduction of some notable new features into the landscape; or some notable change to the key physical and/or perceptual attributes of the landscape.*
- **High Magnitude of Change** - *A major loss or alteration to existing landscape features; introduction of major new features into the landscape; or a major change to the key physical and/or perceptual attributes of the landscape.*
- **Very High Magnitude of Change** - *Total loss or alteration to existing landscape features; introduction of dominant new features into the landscape; a very major change to the key physical and/or perceptual attributes of the landscape.*

Nature (magnitude) of effects on views and visual amenity

6.3.34 Visual effects are caused by the introduction of new elements into the views of a landscape or the removal of elements from the existing view.

6.3.35 Professional judgement has been used to determine the magnitude of impacts using the following criteria as guidance only:

- **Very Low Magnitude of Change** - *Negligible change in views.*

- **Low Magnitude of Change** - Some change in the view that is not prominent but visible to some visual receptors.
- **Medium Magnitude of Change** - Some change in the view that is clearly notable in the view and forms an easily identifiable component in the view.
- **High Magnitude of Change** - A major change in the view that is highly prominent and has a strong influence on the overall view.
- **Very High Magnitude of Change** - A change in the view that has a dominating or overbearing influence on the overall view.

6.3.36 Using this set of criteria, determining levels of magnitude is primarily dependent on how prominent the development would be in the landscape, and what may be judged to flow from that prominence or otherwise.

6.3.37 For clarification, the use of the term ‘prominent’ relates to how noticeable the features of the development would be. This is affected by how close the viewpoint is to the development but not entirely dependent on this factor. Other modifying factors include: the focus of the view, visual screening and the nature and scale of other landscape features within the view. Rather than specifying general bands of distance at which the proposed development would be dominant, prominent or incidental to the view etc. the prominence of the proposed development in each view is described in detail for each viewpoint taking all the relevant variables into consideration.

Type of effect

6.3.38 The assessment identifies effects which may be **beneficial**, **adverse** or **neutral**. Where effects are described as neutral this is where the beneficial effects are deemed to balance the adverse effects.

6.3.39 For some developments (e.g. wind energy or solar developments) it is recognised that some people consider the development to be unattractive, but others enjoy the sight of it. A landscape and visual assessment for these developments therefore assumes that all identified landscape and visual effects are ‘adverse’ unless stated otherwise. This allows decision makers to assess a worst-case scenario.

Duration of effect

6.3.40 For the purposes of this assessment, the temporal nature of each effect is described as follows:

- **Long Term** – over 5 years
- **Medium Term** – between 1 and 5 years
- **Short Term** – under 1 year

Reversibility of effect

6.3.41 The LVIA also considers the reversibility of each identified effect using the following terms:

- **Permanent** – effect is non reversible
- **Non permanent** – effect is reversible

Level of effect

6.3.42 The purpose of an LVIA when produced in the context of an EIA is to identify and describe any significant effects on landscape and visual amenity arising from the proposed development.

6.3.43 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017¹¹, as amended do not define a threshold at which an effect may be determined to be significant. In certain other environmental disciplines there are regulatory thresholds or quantitative standards which help to determine the threshold of what constitutes a significant effect. However in LVIA, any judgement about what constitutes a significant effect is ostensibly a subjective opinion expressed as in this case by a competent and appropriately qualified professional assessor.

6.3.44 The level (relative significance) of landscape and visual effects is determined by combining judgements regarding the sensitivity of the landscape or view, magnitude of change, duration of effect and the reversibility of the effect. In determining the level of residual effects, mitigation measures are taken into account.

6.3.45 The relative level of effect is described as **major, major/moderate, moderate, moderate/minor, minor** or **minor/no effect**. **No effect** may also be recorded as appropriate where the effect is so negligible it is not even noteworthy.

6.3.46 Those effects described as major, major/moderate and in some cases moderate may be regarded as **significant** effects.

¹¹ The Infrastructure Planning (Environmental Impact Assessment) Regulations, 2017

Residential Visual Amenity Assessment

- 6.3.47 A detailed consideration with regard to the visual amenity of the nearest residential properties to the Proposed Development is included within the LVIA. For any residential properties located within 0.5km of the Proposed Development, these are considered as part of a separate standalone Residential Visual Amenity Assessment (RVAA) which forms **Appendix 6.4 - Residential Visual Amenity Assessment [EN010163/APP/6.3.6]** to this ES chapter. The RVAA has been prepared in line with the principles set out in best practice guidance 'Residential Visual Amenity Assessment (RVAA) -Technical Guidance Note 02/19', Landscape Institute (2019)¹².
- 6.3.48 At the PEIR stage, where no layout proposals were yet confirmed, a separate RVAA was not provided. However, consideration was given to the potential for visual effects on the nearest residential properties from the PEIR stage development parameters, and these preliminary assessments were used to help inform the development of the final layout in order to help minimise the potential for effects.

Assessment of Cumulative Effects

- 6.3.49 This Chapter also provides a consideration of cumulative effects of the Proposed Development in combination with other existing, approved or proposed schemes. **Chapter 2- EIA Methodology and Public Consultation [EN010163/APP/6.2.2]** sets out a list of cumulative sites which have been considered in **Appendix 2.3 - Cumulative Sites Long List and Short List [EN010163/APP/6.3.2]**, which are also illustrated on **Figure 2.2- Cumulative Schemes Plan [EN010163/APP/6.4.2]**.
- 6.3.50 The assessment has a focus on proportionality and identifying likely significant effects only. This is in line with the guidance within 'Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment'.
- 6.3.51 The Applicant sought input on the list of cumulative developments from the relevant planning authorities and other consultees through the EIA Scoping and PEIR stages before confirmation of the final list which has informed the assessment that has been included in the ES. The cumulative impact assessment is set out at Section 6.10.

Study Area

- 6.3.52 The assessment of the likely significant effects of the Proposed Development on the landscape and visual resource has taken account of all the attributes of the local

¹² Residential Visual Amenity Assessment (RVAA) -Technical Guidance Note 02/19, Landscape Institute, 2019

- landscape and these have also helped in defining the study area. This was also informed by a review of published documents including landscape character assessments and field surveys (June 2022 to March 2025).
- 6.3.53 Following preliminary desktop research and field work, the study area for the LVIA (used to understand the wider context of the Site's location) was taken to be 5km from the Site boundary. Any views of the Proposed Development beyond this distance would be negligible and unlikely to give rise to any effects greater than minor. The Residential Visual Amenity Assessment (RVAA) at **Appendix 6.4 - Residential Visual Amenity Assessment [EN010163/APP/6.3.6]** is based on a detailed study area of 0.5km from the Proposed Development.

Glint and Glare

- 6.3.54 The matter of potential effects on visual receptors due to glint or glare is addressed separately in **Chapter 16 - Glint and Glare [EN010163/APP/6.2.16]**. The assessment set out in that Chapter has been cognisant of the embedded landscape mitigation measures discussed in Section 6.8, which would serve to reduce the potential visibility of the Proposed Development. It is noted that no significant effects due to glint or glare have been identified in that Chapter that may warrant consideration in combination with the effects on visual receptors identified in this Chapter.

6.4 Assessment Assumptions and Limitations

- 6.4.1 The baseline landscape resource and visual receptors were identified in part through a desk-based study of published landscape character studies, relevant planning policy guidance, aerial photography and Ordnance Survey mapping. In addition, site visits were conducted between June 2022 and March 2025, with the viewpoint photographs taken in summer 2024. A set of winter photography has also be undertaken in early 2025 for the photomontages included in **Appendix 6.2 - Photomontages [EN010163/APP/6.3.6]** to the ES Chapter.
- 6.4.2 Access during site visits was restricted to publicly accessible locations and within the land controlled by the Applicant. No access was sought to private properties, which were assessed from the nearest available publicly accessible vantage point. Therefore, some assumptions have been made regarding views from private properties. These assumptions have been based on professional experience and interpretation of available desktop data as well as land use and vegetation present at the time of the site visits.

6.5 Stakeholder Engagement

- 6.5.1 The proposed scope of work including the approach to the landscape and visual assessment and preliminary viewpoint selection, were submitted for comments as part of the Applicant's Environmental Impact Assessment Scoping Report (see **Appendix 1.1 – Steeple Renewables Project Scoping Report [EN010163/APP/6.3.1]**). A summary of the relevant matters raised by the Planning Inspectorate in the Scoping Opinion (see **Appendix 1.2 – Steeple Renewables EIA Scoping Opinion [EN010163/APP/6.3.1]**) is included in Table 6.1 below.

Table 6.1- Summary of Landscape and Visual Matters raised by the Planning Inspectorate in the Scoping Opinion

ID	REF	MATTER	PLANNING INSPECTORATE COMMENTS	APPLICANT RESPONSE
3.1.2	Paragraphs 3.6.2 8.6.2	Lighting	The ES should explain the construction and operational lighting strategy and how the lighting design has been developed to minimise light spill and the effect of intermittent lighting on human and ecological receptors. The ES should provide an assessment of lighting effects during construction and decommissioning, including a night-time assessment, or the information required to demonstrate the absence of a likely significant effect (LSE).	Details of the lighting strategy for the construction, operational and decommissioning phases is set out in Chapter 4: Proposed Development [EN010163/APP/6.2.4] of the ES. In summary, there would be no lighting associated with the solar energy element of the Proposed Development during the operational phase of the development and for the substation and BESS, movement activated security lighting will be provided, with no permanent lighting required to be switched on. During the construction and decommissioning period there will be limited working outside of

ID	REF	MATTER	PLANNING INSPECTORATE COMMENTS	APPLICANT RESPONSE
				daylight hours and where any such works were to take place standard best practice will be implemented to minimise light spill and any potential for effects of lighting on human receptors such that no significant effects would arise. Further detail regarding potential effects of lighting on ecological receptors is set out in ES Chapter 7 Ecology and Biodiversity [ENO10163/APP/6.2.7].
3.1.3	Paragraph 7.4.12 Table 7.1	Study Area - Screened Zone of Theoretical Visibility (SZTV)	The Applicant should demonstrate how their approach to using a SZTV complies with the Landscape Institute's guidance on establishing a ZTV for the LVIA. The Landscape Institute's ZTV approach treats the world as 'bare earth' and does not take account of potential screening by vegetation or buildings.	It is considered that the SZTV plan is an appropriate basis to illustrate the potential visibility of the Proposed Development. The plans have been taken to site and 'ground-truthed' in the field and rather than underestimating any potential visibility, the plans are an overestimation of the extent of likely visibility. This is because although built form and larger blocks of woodland are included in the SZTV model, hedgerows are not, and these serve to notably limit potential visibility even when allowing for their cycle of cutting across

ID	REF	MATTER	PLANNING INSPECTORATE COMMENTS	APPLICANT RESPONSE
				the year. Notwithstanding this, an additional 'bare earth' layer has also been provided in the ZTV plans which accompany the ES.
3.1.4	Paragraph 7.4.20	Photomontages	The Inspectorate considers that 3D photomontages based on current Landscape Institute best practice guidance should be provided with the ES to demonstrate the potential visual impact of the Proposed Development on receptors from chosen viewpoints, and to show this during in Year 1 and Year 15 as proposed, in winter and summer periods as required, with and without the Proposed Development. Effort should be made to agree the visual receptors, viewpoint locations and viewpoint heights with relevant consultation bodies.	Such photomontages have been prepared and are included at Appendix 6.2 – Photomontages [EN010163/APP/6.3.6] . Effort was made to agree the locations for the photomontages with relevant consultation bodies through the EIA Scoping and PEIR stages, with a request for feedback on the proposed photomontage locations included within both the Scoping Report and the PEIR.
3.1.5	Paragraphs 7.6.2 – 7.6.3	Mitigation planting	The ES should clearly present any assumptions made with regards to the height that the proposed mitigation planting would have reached by the assessment years, with reference to relevant guidance to	Details of the assumed growth rates for mitigation planting are set out in Section 6.8 below.

ID	REF	MATTER	PLANNING INSPECTORATE COMMENTS	APPLICANT RESPONSE
			ensure that these are based on accepted growth rates for the plant species concerned, for the purposes of generating photomontages and reaching the assessment conclusions.	
3.1.6	n/a	Impacts – cross reference to other aspects	The LVIA should cross refer to other relevant assessments and sensitive receptors such as cultural heritage.	The LVIA has been cognisant of the findings of the Cultural Heritage Assessment (ES Chapter 9) [ENO10163/APP/6.2.9] and other relevant ES Chapters, including the Ecology and Biodiversity Chapter (Chapter 7) [ENO10163/APP/6.2.7] and the Hydrology, Hydrogeology, Flood Risk and Drainage Chapter (Chapter 8) [ENO10163/APP/6.2.8]. In particular, the landscape and ecological mitigation set out on Figure 6.8 has been prepared collaboratively by the authors of the respective Chapters and also includes additional flood risk mitigation.
3.1.7	n/a	Transient receptors	The ES should consider the potential for visual effects on transient	The LVIA does include an assessment of such

ID	REF	MATTER	PLANNING INSPECTORATE COMMENTS	APPLICANT RESPONSE
			receptors such as users of cars, bicycles, buses, or trains.	transient receptors at Section 6.7.

6.5.2 In addition to the matters set out by the Planning Inspectorate in the Scoping Opinion itself, there were also landscape and visual matters raised by several consultees whose feedback was appended to the Scoping Opinion. These are summarised in Table 6.2 below:

Table 6.2- Summary of Landscape and Visual Matters raised by Consultees through the Scoping Process

CONSULTEE	COMMENTS	APPLICANT RESPONSE
Bassetlaw District Council	Cumulative landscape and visual effects with other schemes should be assessed as the project progresses, particularly in regards other NSIP or renewable energy projects.	An updated list of cumulative sites has been used for the assessment set out in this Chapter.
	The visual assessment should take account of the worst case scenario in terms of winter views and effects associated with landscape mitigation at the operational phase (year 1), residual phase with planting having established (typically 15 years) and at the decommissioning phase	The assessment set out in this Chapter does indeed take account of the potential for winter views, plus effects associated with landscape mitigation at the operational phase (year 1), residual phase with planting having established (typically 15 years) and at the decommissioning phase. The Chapter also includes a winter photography collected during winter 2024/25 which have been used to inform the photomontages at Appendix 6.2 – Photomontages [EN010163/APP/6.3.6] .
	The LVIA should ensure that all elements associated with the development are considered and assessed, such as battery storage systems and boundary	The assessment set out in this Chapter takes account of the battery storage systems and boundary fencing.

CONSULTEE	COMMENTS	APPLICANT RESPONSE
	fencing, which may be more visible than the panels due to height and mass	
Forestry Commission	There is one 1.14ha area of traditional orchard and two areas of lowland mixed deciduous woodland (0.85ha & 2.38ha) within the Site that are all on the Priority Habitat Inventory. The 0.85ha area of woodland is within the area designated as a biodiversity area, however both the traditional orchard and the 2.38ha woodland are within the area designated for panels.	All important landscape features, including any woodland, has been retained, with appropriate offsets provided to reflect any root protection areas. Further details are set out in Appendix 6.5 - Arboricultural Impact Assessment [EN010163/APP/6.3.6] .
Lincolnshire County Council	Consideration should be given to the cumulative impacts associated with the development and other NSIP schemes within the locality, in particular Gate Burton Energy Park, West Burton Solar Project, Cottam Solar Project, Tillbridge Solar Project and North Humber to High Marnham, which are currently at pre-application, pre-examination, recommendation and decision stage.	An updated list has cumulative sites has been used for the assessment set out in this Chapter, which includes these projects.
	It is noted that the landscape and visual study area extends into areas within Lincolnshire County Councils administrative boundary. Considering the	The study area encompasses part of Lincolnshire and the assessment set out in this Chapter therefore addresses the potential for effects on landscape character and visual receptors in this area.

CONSULTEE	COMMENTS	APPLICANT RESPONSE
	proximity of this boundary to the project scope there is potential for the development to indirectly impact on the wider landscape character and/or setting in Lincolnshire. Particularly in respect of cumulative landscape impacts and impacts on visual amenity	
Natural England	The ES should fully consider the implications of the whole development proposal. This should include an assessment of all supporting infrastructure. Plans or projects that Natural England are aware of that might need to be considered in the ES: Springwell Solar Farm; North Humber to High Marnham Electricity Transmission; Cottam Solar; West Burton; Great North Road Solar Project; Gate Burton; Tillbridge Solar Farm	An updated list of cumulative sites has been used for the assessment set out in this Chapter, which includes a number of these projects.
	The environmental assessment should refer to the relevant National Character Areas	The assessment set out in this Chapter does take account of the relevant National Character Areas (refer to paragraphs 6.6.6 and 6.7.39).
	Natural England recommends use of the methodology set out in Guidelines for Landscape and Visual Impact Assessment 2013 ((3rd edition) produced by the Landscape Institute and the	The assessment set out in this Chapter does follow the principles set out in GLVIA3.

CONSULTEE	COMMENTS	APPLICANT RESPONSE
	Institute of Environmental Assessment and Management	
	The ES should set out the measures to be taken to ensure the development will deliver high standards of design and green infrastructure	The assessment set out in this Chapter includes a description of the landscape and ecological mitigation and enhancement proposals forming part of the Proposed Development.
Newark and Sherwood Council	Following a review of the Scoping Report, we note that the applicant intends to consider the potential for cumulative effects and refers to both NSIP projects and planning applications within the 'host' planning authority administrative area of Bassetlaw District Council. At this stage, we can see no evidence of the consideration of the potential for cross boundary cumulative effects. Newark and Sherwood District Council are a 'host' authority for the One Earth Solar Farm NSIP project, which lies to the north of the district.	An updated list has cumulative sites has been used for the assessment set out in this Chapter, which includes the One Earth Solar Farm.

6.5.3 The preliminary landscape and visual assessment, including viewpoint selection, were also submitted for comments as part of the Applicant's PEIR. A summary of the relevant matters raised by the consultees in their responses to the PEIR is included in Table 6.3 below.

Table 6.3- Summary of Landscape and Visual Matters raised by Consultees through the PEIR Process

CONSULTEE	COMMENTS	APPLICANT RESPONSE
Nottinghamshire County Council	<p>Methodology for ZTV Creation: Our review has raised several queries regarding the methodology employed for creating the Zone of Theoretical Visibility (ZTV). Detailed information on the approach taken and the assumptions made would be beneficial to ensure accuracy and transparency.</p>	<p>It is considered that the SZTV plan is an appropriate basis to illustrate the potential visibility of the Proposed Development. The plans have been taken to site and ‘ground-truthed’ in the field and rather than underestimating any potential visibility, the plans are an overestimation of the extent of likely visibility. This is because although built form and larger blocks of woodland are included in the SZTV model, hedgerows are not, and these serve to notably limit potential visibility even when allowing for their cycle of cutting across the year. Notwithstanding this, an additional ‘bare earth’ layer has also been provided in the ZTV plans which accompany the ES.</p>
	<p>Adherence to GLVIA3 Guidance Notes: It is imperative to confirm whether the most recent Guidelines for Landscape and Visual Impact Assessment (GLVIA3) Guidance and clarification notes have been utilised to inform the assessment. Adherence to these guidelines is crucial for maintaining consistency and reliability in the evaluation process.</p>	<p>The most recent GLVIA3 Guidance and clarification notes have been utilised to inform the assessment.</p>
	<p>Photographic Record Pages: There are noted inconsistencies within the photographic record pages provided. A thorough revision to</p>	<p>An updated version of the Photographic Record which addresses any minor inconsistencies is set out at Appendix 6.1 - Viewpoint Photographs [EN010163/APP/6.3.6].</p>

CONSULTEE	COMMENTS	APPLICANT RESPONSE
	ensure uniformity and accuracy across all visual materials is recommended.	
	Integration with Other Disciplines: The documents would greatly benefit from illustrating how the landscape considerations integrate with other relevant disciplines such as cultural heritage and ecology. Demonstrating this interdisciplinary approach will enhance the comprehensiveness and robustness of the assessment.	The LVIA has been cognisant of the findings of the Cultural Heritage Assessment (ES Chapter 9 – Cultural Heritage [EN010163/APP/6.2.9]) and other relevant ES Chapters, including the Ecology Chapter (Chapter 7 – Ecology and Biodiversity [EN010163/APP/6.2.7]) and the Hydrology, Hydrogeology, Flood Risk and Drainage Chapter (Chapter 8 [EN010163/APP/6.2.8]). In particular, the landscape and ecological mitigation set out on Figure 6.8 has been prepared collaboratively by the authors of the respective Chapters and also includes additional flood risk mitigation.
West Lindsey District Council	Given the close proximity of these projects to one another [Gate Burton Energy Park; Cottam Solar Project; and West Burton Solar Project], they will likely be viewed as one large solar park. The cumulative landscape character impacts must be considered as a kinetic and sequential basis, with an appreciation of the scale of change across districts.	The potential for cumulative landscape and visual effects has been considered in Section 6.10. This includes consideration of the Gate Burton, Cottam and West Burton projects. As part of the assessment regard has been given to the potential for effects to be perceived in a sequential manner as one moves around the wider landscape covering the projects, including the landscape of West Lindsey.
Canal and River Trust	We note that some 26 Assessment Viewpoints are identified (6.6.32 and Table 6.3) and shown on Figure 6.6. Of these only	The potential for visibility of the Proposed Development from the River Trent has been considered carefully as part of the LVIA process. The ZTV plans clearly illustrate the highly limited potential for any visibility from the river,

CONSULTEE	COMMENTS	APPLICANT RESPONSE
	Viewpoint 26 appears to be offer a view from the immediate vicinity of the River Trent... We suggest consideration is given to potentially identifying viewpoints on the river around Littleborough, Marton or Torksey to demonstrate how visible (or not) the development is likely to be.	which is primarily a function of the high embankments that bound the majority of the river as it passes through the study area. Furthermore, the Proposed Development is offset from the river to a notable degree, with the shortest distance between the built elements of the Proposed Development and the river being around 1km. In the case of the section of the river to the south-east of the Proposed Development around Littleborough, Marton and Torksey, the ZTV plans clearly demonstrate there would be no views from the river, with Torksey also located over 4km from the built elements of the Proposed Development.
North Leverton Parish Council	The project will harm the landscape character of the ward in direct conflict with the ward plan.	Regarding landscape character effects, NPS EN-1 sets out at paragraph 5.10.5 that <i>'Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation'</i> . NPS EN-1 goes on to state at paragraph 5.10.6 that <i>'Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate'</i> . In the case of the Proposed Development it is recognised that some localised effects on landscape character would arise, but it is considered that the project has minimised potential harm to the landscape though the design of the Proposed Development and the provision of appropriate mitigation, as set out on Figure 6.9 Landscape and Ecological Mitigation Strategy [EN010163/APP/6.4.6] .
National Grid	If a landscaping scheme is proposed as part of the	The landscape proposals set out on Figure 6.9 Landscape and Ecological Mitigation Strategy [EN010163/APP/6.4.6] have been

CONSULTEE	COMMENTS	APPLICANT RESPONSE
	proposal, we request that only slow and low growing species of trees and shrubs are planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.	cognisant of the advice provided by National Grid.

6.6 Baseline Conditions

Site Context and Landscape Features

- 6.6.1 The Site broadly lies between the settlements of Retford and Gainsborough, occupying multiple agricultural fields within a relatively flat agricultural landscape primarily in arable use. The Site also includes part of the existing West Burton Power Station site covering the area around the existing 400kV substation. Small woodland plantations are located within some of the fields. Further details on the trees and hedgerows at the Site is set out in **Appendix 6.5 - Arboricultural Impact Assessment [EN010163/APP/6.3.6]**. A number of settlements or clusters of properties are located nearby beyond the Site boundaries, including Sturton le Steeple, North Leverton with Habbleshthorpe and Fenton. Individual properties are also located close to the boundaries of the Site and within the wider surrounding area.
- 6.6.2 A network of roads is located both within the Site and adjacent to the boundary. The Sheffield – Lincoln railway line passes through the western section of the Site and the Torksey Branch railway line lies adjacent to the southwestern corner of the Site. The River Trent lies adjacent to the eastern boundary of the Site. The Catchwater Drain is located in the eastern section of the Site close to the Site’s boundary with the eastern side of Sturton le Steeple.
- 6.6.3 A series of Public Rights of Way (PRoW) are located within the Site, including a number of footpaths travelling west from Sturton le Steeple to the surrounding settlements. A footpath routes northwards from Fenton to Sturton le Steeple, travelling northwards through the site and a further footpath to the east of this also

routes north through the Site. PRow in the vicinity of the Site are illustrated on ES **Figure 3.3 Public Rights of Way Plan [EN010163/APP/6.4.3]**. The long-distance path known as the Trent Valley Way travels through the Site from east to west through the southern edge of the settlement of Sturton le Steeple.

- 6.6.4 There are a number of overhead electricity lines which pass through the Site, the locations of these are shown on **Figure 3.1 Site Constraints Plan [EN010163/APP/6.4.3]**. In the eastern extent of the Site there are four overhead lines which run from West Burton Power Station across the Site in a southeast direction. A 11kV overhead line and a 132kV overhead line runs through the western section of the Site, the 11kV cable passes in a northwest direction from the boundary with Sturton le Steeple towards South Wheatley and the 132kV line passes through the Site in an east to west direction from where the Site borders the railway line.

Landscape Character

- 6.6.5 Published Landscape Character Assessments that cover the Site and wider study area have been interrogated and are detailed below.

National Landscape Character

- 6.6.6 The Site lies towards the northern extent of National Character Area (NCA) 48: Trent and Belvoir Vales¹³. The NCA is described as a '*gently undulating and low-lying landform in the main, with low ridges dividing shallow, broad river valleys, vales and flood plains*'. Amongst the key characterises of the NCA it notes that '*Immense coal-fired power stations in the north exert a visual influence over a wide area, not just because of their structures but also the plumes that rise from them and the pylons and power lines that are linked to them*'. The NCA is considered to have a medium sensitivity, based on a medium susceptibility and a medium value.
- 6.6.7 Elsewhere in the detailed 5km study area lie parts of NCA 45 - Northern Lincolnshire Edge with Coversands, NCA 39 - Humberhead Levels and NCA 49 – Sherwood. With regard to their key characteristics, as identified in the published landscape character descriptions and through observations in the field, each of these NCAs are considered to have a medium sensitivity, based on a medium susceptibility and a medium value.

¹³ National Character Area (NCA) Profile 48: Trent and Belvoir Vales, Natural England, 2013

- 6.6.8 The NCAs within the detailed 5km study area are illustrated on **Figure 6.4 - Landscape Character Areas [EN010163/APP/6.4.6]**.

Local Landscape Character

- 6.6.9 At a district level, the 'Landscape Character Assessment – Bassetlaw, Nottinghamshire' was prepared by Bassetlaw District Council in August 2009¹⁴. The Character Assessment identifies that the Site lies across both the 'Mid Notts Farmlands' and 'Trent Washlands' Character Areas.
- 6.6.10 Further to the west of the study area lie parts of the 'Sherwood' and the 'Idle Lowlands' Character Areas.
- 6.6.11 Across the River Trent to the east of the Site lies West Lindsey, with Character Areas including the 'Trent Valley' and the 'Till Vale' identified in the 'West Lindsey Landscape Character Assessment'¹⁵, prepared by West Lindsey District Council in 1999.
- 6.6.12 The local character areas within the detailed 5km study area are also illustrated on **Figure 6.4 -Landscape Character Areas [EN010163/APP/6.4.6]**.
- 6.6.13 The Character Areas in Bassetlaw District are divided into a series of Policy Zones, for which key characteristics are derived, and analysis of the condition and sensitivity of the landscape set out in the Landscape Character Assessment. This information has informed an understanding of the susceptibility and value of each of the Character Areas, as well as the mitigation and enhancement strategy set out in Section 6.8. In each case, the Character Areas are considered to have a medium sensitivity, based on a medium susceptibility and a medium value.

Landscape Character of the Site

- 6.6.14 The landscape character of the Site itself is broadly typical of the two character areas which cover it. The Site can generally speaking be divided into two halves from a character perspective, with the eastern section being more associated with the Trent valley with fewer hedgerows and more dividing drainage ditches and watercourses, and the western half more typical of the Mid-Nottinghamshire farmland with a stronger network of hedgerows and slightly more undulating ground.

¹⁴ Landscape Character Assessment – Bassetlaw, Nottinghamshire, Bassetlaw District Council, 2009

¹⁵ West Lindsey Landscape Character Assessment, West Lindsey District Council, 1999

- 6.6.15 The electricity infrastructure which passes through the eastern section of the Site is a notable characteristic of that part of the landscape, with the former West Burton Power Station site, plus the nearby Cottam Power Station site, being prominent elements in the landscape.
- 6.6.16 With regard to its key characteristics, the landscape character of the Site is considered to have a medium sensitivity, based on a medium susceptibility and a medium value.

Landscape Designations

- 6.6.17 The Site is not covered by any designation at a national, regional or local level that recognises it as having specific landscape importance. In the wider study area, there is an Area of Great Landscape Value in the West Lindsey District, to the east of the Site, which covers an area to the east and south of Gainsborough.
- 6.6.18 Other designations include various small patches of Ancient Woodland, none of which lies close to the Site, and various areas covered by landscape related policies within the Bassetlaw Local Plan, to the west of the Site, including Green Corridors and Green Gaps.
- 6.6.19 Landscape Designations in the detailed 5km study area are illustrated on **Figure 6.2- Landscape Designations [EN010163/APP/6.4.6]**.

Visual Receptors

Extent of Visibility

- 6.6.20 A series of SZTV plans (**Figure 6.6a-c, [EN010163/APP/6.4.6]**) have been produced which illustrate the theoretical extent of where the Proposed Development would be visible from, assuming 100% visibility and includes the screening effect from vegetation and buildings, as well as illustrating the 'bare earth' scenario. This has been generated using the final layout proposals and height parameters i.e. that the proposed panels would have a maximum height of 3m (a reduction in height from the worse-case parameter of 3.6m assumed at the Scoping and PEIR stages), and the Onsite Substation and Battery Energy Storage System (BESS) area would have a maximum height of 12m, relating only to the Onsite Substation Busbars and overhead electrical infrastructure, with the highest part of the BESS being only 4.5m and the highest part of the main elements of the Onsite Substation being 10m. Indicative existing woodland and building heights are modelled at 15m and 8m respectively.

- 6.6.21 The SZTV plans illustrate potential visibility of the Proposed Development would be notably restricted to both the east and west, and would extend to up to around 5km to the north and south. However, the screening effect provided by smaller blocks of woodland and hedgerows/hedgerow trees, particularly those within and surrounding the Site, have not been taken into account, and consequently the actual extent of the area from which the Proposed Development is visible is likely to be much smaller.
- 6.6.22 The SZTVs are a useful tool used to provide a focus on the area and receptors that are most likely to be affected by a Proposed Development but should always be subject to verification in the field. In this regard, site visits were undertaken to understand the actual likely visibility of the Proposed Development at the Site.
- 6.6.23 Following desktop research and site visits, it is evident that the core area of actual visibility of the Proposed Development generally extends no more than 1km from the Site in all directions, with the exception of a small number of locations which are slightly more elevated in the landscape. These wider locations are captured amongst the Viewpoints which are provided with this Chapter, as discussed further subsequently.

Residential Receptors

- 6.6.24 In terms of local settlements, the Site is located to both the east and west of the village of Sturton le Steeple. Other nearby settlements include North Leverton with Habbleshthorpe to the south, North Wheatley and South Wheatley to the north-west and Clarborough to the west. The small cluster of properties at Fenton lie between Sturton le Steeple and North Leverton with Habbleshthorpe, close to the Site boundary.
- 6.6.25 The SZTVs illustrate little or no potential visibility of the Proposed Development from the majority of the settlements in the study area. This includes Clarborough, and the larger built-up areas of Retford and Gainsborough. Indeed, the only settlements which the SZTV mapping and the subsequent site work to appraise the potential for visibility in the field has indicated would have any potential for more than negligible views of the Proposed Development are Sturton le Steeple, North Leverton with Habbleshthorpe to the south and South Wheatley to the north-west. These settlements are therefore considered further in the subsequent assessment of effects at Section 6.7.

6.6.26 There are also a number of small clusters of properties, as well as individual properties, throughout the study area. A RVAA has been undertaken to consider individual properties within 500m of the Proposed Development in detail and is included at **Appendix 6.4 - Residential Visual Amenity Assessment [EN010163/APP/6.3.6]**.

6.6.27 Settlements within the detailed 5km study area are illustrated on **Figure 6.5a – Visual Receptors (Settlements, A Roads, B Roads and Long Distance Routes) [EN010163/APP/6.4.6]**.

Users of publicly accessible bridleways and footpaths

6.6.28 A series of PRow pass within or close to the Site. These include the Trent Valley Way which passes through the Site as it runs between South Wheatley and Laneham. PRow in the vicinity of the Site are illustrated on **ES Figure 3.3- Public Rights of Way Plan [EN010163/APP/6.4.3]**.

6.6.29 Those which pass through the eastern part of the Site include: FP1 [West Burton]; FP17; FP15; FP16; BW13; FP39; RB32; FP38; PF37; BW5; FP6; and FP8 [all Sturton le Steeple]. Adjacent to the boundary of the eastern part of the Site are BW7 and FP35 [both Sturton le Steeple]; and FP18 [North Leverton]. The cable corridor between the eastern and western parts of the Site is crossed by FP2 and FP3 [both Sturton le Steeple], which extend to become FP1 and FP7 [both North Leverton] immediately beyond the Site, the boundary of which follows the parish boundary at that point.

6.6.30 The main section of the western part of the Site is crossed by FP19; FP20; BW23; FP21; RB30; RB31; FP41; FP24; BW25; FP22 and BW26 [all Sturton le Steeple].

6.6.31 The separate section of the western part of the Site, which is proposed to form the western Ecological Mitigation Area is crossed by FP27; BW28 and FP29 [all Sturton le Steeple]; and BW19; and BW2 [both Clarborough]. Adjacent to the boundary of this section of the western part of the Site also runs BW19 [Clarborough].

6.6.32 The Trent Valley Way is illustrated on **Figure 6.5a – Visual Receptors (Settlements, A Roads, B Roads and Long Distance Routes) [EN010163/APP/6.4.6]**. Other PRow within the detailed 5km study area are illustrated on **Figure 6.5b – Visual Receptors (Settlements, A Roads, B Roads and PRow) [EN010163/APP/6.4.6]**.

Users of the transport network

6.6.33 There are several roads which run through the detailed 5km study area. These include the following A Roads: A620; A156; A631; A1500 and the A638.

- 6.6.34 There are also the following B Roads within the study area: B1241; B1403 and the B6044.
- 6.6.35 In addition, there are also a number of minor roads which pass within close proximity of the Site. These include: Leverton Road/Sturton Road, which runs between Sturton le Steeple and North Leverton with Habbleshthorpe; Station Road/Wheatley Road, which runs between Sturton le Steeple and South Wheatley; Littleborough Road/Low Holland Lane, which runs between Sturton le Steeple and Littleborough; Three Leys Lane/Fenton Lane, that runs from Leverton Road to Fenton; and North Street/Common Lane, which runs eastwards from Sturton le Steeple. Also close to the Site are Freeman's Lane and Springs Lane, which run westwards out from Sturton le Steeple.
- 6.6.36 Roads within the detailed 5km study area are illustrated on **Figure 6.5c – Visual Receptors (Settlements, A Roads, B Roads and Minor Roads)** [EN010163/APP/6.4.6].

Assessment Viewpoints

- 6.6.37 The following 26no. viewpoint locations are considered to provide representative views towards the Proposed Development from the surrounding landscape, as illustrated on **Figure 6.6a-c – SZTV and Viewpoints** [EN010163/APP/6.4.6] and presented in **Appendix 6.1- Viewpoint Photographs** [EN010163/APP/6.3.6]. The viewpoints were selected following initial site work at the outset of the LVIA process and were designed to represent a range of visual receptors at a variety of distances and directions from the Proposed Development. They also cover a variety of different landscape character types. Each of the viewpoints lie within the ZTV of the Proposed Development, albeit in many instances localised vegetation screening not shown on the STZV plans would serve to limit the potential for any views. The viewpoints were included within the EIA Scoping Report, alongside a request for feedback from consultees on the suggested locations. They were also set out in the PEIR and used to inform the preliminary assessment work set out. Very few comments on the viewpoint locations were provided though the EIA Scoping or PEIR stages, with the comments which were received being discussed in Section 6.5 above.
- 6.6.38 A detailed description of each of the viewpoints, their baseline views and sensitivity of associated visual receptors is set out in **Appendix 6.3 – Viewpoint Assessment** [EN010163/APP/6.3.6]. It is however acknowledged that viewpoints are simply

- snap shots of the view from a small number of the potential locations where the Proposed Development would be visible. The visual assessment also therefore provides a broader discussion of visual effects on a range of visual receptors throughout the study area with reference made to the views represented by the selected viewpoints where applicable to help illustrate the point being made.
- 6.6.39 The Chapter is also accompanied by visualisations of the Proposed Development to illustrate the view from several of the viewpoints in the area surrounding the Site.
- 6.6.40 The visualisations have been prepared in line with Landscape Institute guidance, ‘Visual Representation of Development Proposals, Technical Guidance Note 06/19, September 2019’. The visualisations have been produced during two different time periods, summer and winter, at both Year 1 and at Year 15 with the benefit of maturing vegetation.
- 6.6.41 Table 6.4, set out below, lists the viewpoint locations. Visualisations have been prepared for viewpoints 1, 2, 6, 12, 13, 14, 17 and 20.

Table 6.4 - Viewpoints

Viewpoint no.	Viewpoint description	Coordinates	Receptor represented
1	Springs Lane/Trent Valley Way, west of Sturton le Steeple	478486, 383879	Users of the Trent Valley Way/ residential receptors on the western edge of Springs Lane/ road users at the western extent of Springs Lane.
2	Low Holland Lane, east of Sturton le Steeple	479440, 383937	Road users on Low Holland Lane/Littleborough Road.
3	Leverton Road, south of Sturton le Steeple	478765, 383613	Residential receptors on the southern edge of Sturton le Steeple/ road users on Leverton Road.
4	Freeman’s Lane, west of Sturton le Steeple	478363, 384075	Users of the public right of way/ residential receptors on the western edge of Freeman’s Lane/ road users at the western extent of Freeman’s Lane.
5	Gainsborough Road, north of Sturton le Steeple	478514, 384854	Road users on Gainsborough Road.

Viewpoint no.	Viewpoint description	Coordinates	Receptor represented
6	Footpath Sturton le Steeple FP17	479149, 384548	Users of the public right of way.
7	Footpath West Burton FP1	479884, 384873	Users of the public right of way.
8	Cross Common Lane/ Restricted Byway Sturton Le Steeple RB32	480117, 384426	Users of the public right of way/ road users of the restricted byway.
9	Upper Ings Lane/ Restricted Byway Sturton le Steeple RB33	481838, 384248	Users of the public right of way/ road users of the restricted byway.
10	Trent Valley Way, Junction of Littleborough Road and Thornhill Lane	481479, 383062	Users of the Trent Valley Way/ Road users on Littleborough Road.
11	Trent Valley Way, Littleborough Road – White Bridge	481995, 382774	Users of the Trent Valley Way/ Road users on Littleborough Road.
12	Thornhill Lane	481318, 382615	Road users on Thornhill Lane.
13	Trent Valley Way/ Fenton Lane, Fenton	479308, 383035	Users of the Trent Valley Way/ Road users on Fenton Lane/residential receptors in the eastern part of Fenton.
14	Three Leys Lane – Junction with Leverton Road	478672, 383132	Road users on Three Leys Lane and Leverton Road/Sturton Road.
15	Footpath North Leverton with Habbleshthorpe FP24	478298, 382207	Users of the public right of way / residential receptors at the north- western edge of North Leverton with Habbleshthorpe.
16	Junction of Magpie Lane and Northfield Road, North Leverton with Habbleshthorpe	479400, 382239	Road users on Magpie Lane and Northfield Road/ residential receptors at the north-eastern edge of North Leverton with Habbleshthorpe.
17	Dog Holes Lane	478047, 382960	Users of the public right of way FP41.

Viewpoint no.	Viewpoint description	Coordinates	Receptor represented
18	High House Road/Trent Valley Way	477241, 383577	Users of the Trent Valley Way and other the public rights of way.
19	North Leverton with Habbleshthorpe FP24, near North Leverton windmill	477511, 381990	Users of the public right of way/ recreational visitors to the windmill.
20	Trent Valley Way, north of Maumhill Wood	476266, 383630	Users of the Trent Valley Way.
21	Trent Valley Way, Muspit Lane	475741, 384855	Users of the Trent Valley Way
22	South Wheatley, St Helen's Churchyard	476654, 385481	Residential receptors on the eastern edge of South Wheatley/ visitors to the churchyard.
23	Public Footpath, North Wheatley FP1	476079, 387245	Users of the public right of way.
24	A620, near Bole Fields	478098, 387133	Users of the A620.
25	A631, west of Beckingham	476152, 390165	Users of the A631.
26	Public Footpath, Sturton Le Steeple FP8	481009, 385629	Users of the public right of way.

6.7 Assessment of Likely Significant Effects

- 6.7.1 The section describes the likely effects at the construction, operation (including maintenance) at both Year 1 and Year 15, and decommissioning stages of the Proposed Development on the landscape and visual amenity.
- 6.7.2 The assessment of effects firstly assesses the sensitivity of the landscape resource on the visual receptor. An assessment is then made as to the magnitude of change, in terms of its scale and size.
- 6.7.3 The assessment of sensitivity of the receptor and magnitude of change area then combined with the duration of effect and the reversibility of the effect, to assist in determining the relative level of effect on each landscape feature, character area or visual amenity.

- 6.7.4 The assessment is based on the assumption that the mitigation measures set out in Section 6.8 are embedded mitigation which would be implemented as part of the Proposed Development. It is therefore not considered appropriate or necessary to identify the effects which would occur without this mitigation in place.
- 6.7.5 Table 6.7, included at the end of this Chapter, outlines the potential landscape and visual effects identified.

Construction Phase

Effects on Landscape Features

- 6.7.6 In terms of ground cover, it is noted that the construction of the Proposed Development would result in notable short term impacts from the movement of vehicles and plant, the construction of temporary compounds and the construction of the built elements of the Proposed Development itself. However, with regard to the trees, woodland and hedgerows within the Site, all vegetation is to be retained bar limited removals of hedgerows to facilitate access tracks, with existing gaps utilised for access where possible. Further details on the impacts to trees and hedgerows at the Site is set out in **Appendix 6.5 - Arboricultural Impact Assessment [EN010163/APP/6.3.6]**.
- 6.7.7 The remainder of the ground cover is currently arable or pastoral farmland, which is a less sensitive landscape feature, with a medium sensitivity. Effects on this farmland during the construction period are likely to be of a high magnitude and major -moderate nature, but as discussed subsequently at paragraph 6.7.36 in relation to the operational phase effects, these effects would reduce once construction is completed and species rich planting is introduced across the majority of the Site.
- 6.7.8 With regard to the topography of the Site, whilst some very local ground levelling may be required, in particular in relation to the Onsite Substation and BESS, the overall level character of the local topography would not be significantly affected. Similarly, none of the wetland features/ditches are predicted to be significantly affected.
- 6.7.9 Effects on ground cover, topography, drainage and water features and vegetation are considered in more detail below.

Vegetation and Ground Cover

- 6.7.10 There are some small areas of existing woodland within the Site, further details of which are set out in **Appendix 6.5 - Arboricultural Impact Assessment [EN010163/APP/6.3.6]** and also within the **Ecology and Biodiversity Chapter 7 [EN010163/APP/6.2.7]** of the ES. In all cases this woodland is to be retained as part of the Proposed Development, with an appropriate standoff also applied during the construction period to ensure no potential for any effects to these high sensitivity landscape features.
- 6.7.11 There are also many individual trees located within the Site, primarily within the hedgerow network. Further details of which are set out in the **Arboricultural Impact Assessment at Appendix 6.5 [EN010163/APP/6.3.6]**. All trees are to be retained as part of the Proposed Development, with an appropriate standoff also applied during the construction period to ensure no potential for any effects to these high sensitivity landscape features.
- 6.7.12 There are existing hedgerows at the Site, further details of which are set out in **Appendix 6.5 - Arboricultural Impact Assessment [EN010163/APP/6.3.6]** and also within the **Ecology and Biodiversity Chapter 7 [EN010163/APP/6.2.7]** of the ES. In order to facilitate the network of access tracks included with the Proposed Development, including the necessary visibility splays and swept path requirements for delivery vehicles, along with the required cabling, some hedgerow removal is required. Wherever possible, the access tracks and cable routes have sought to use existing field access points and gaps in the hedgerows to minimise the need for hedgerow removal. In some instances horizontal directional drilling is also proposed to be employed underneath hedgerows. However, a combined length of 1,070m of hedgerow removal is required across the Site as a whole during the construction phase. This would represent a medium magnitude of change on these high sensitivity features, resulting in a **major-moderate, significant effect**.
- 6.7.13 The remainder of the ground cover is currently arable or pastoral farmland, which is a less sensitive landscape feature, with a medium sensitivity. Effects on this farmland during the construction period would be of a high magnitude and **major - moderate, significant** nature, reflecting the disturbance to the ground required for the construction of the development and the movement of vehicles, plant and construction workers over the Site.

Topography

- 6.7.14 The Proposed Development would be constructed almost entirely at grade with the existing topography of the landscape, with only very minor earthworks associated with the construction of the development of the Onsite Substation and BESS. The magnitude of change to the topography of the Site would be very low, which combined with the medium sensitivity would result in no greater than **minor effects** on the area covered by the Onsite Substation and BESS, with no greater than **negligible effects** on the remainder of the site.

Drainage and Water Features

- 6.7.15 The drainage and water features at the Site are discussed in detail in **Chapter 8 - Hydrology, Hydrogeology, Flood Risk and Drainage [EN010163/APP/6.2.8]**. Standoffs from these features have been built into the Proposed Development. As such, during the construction period there would be no substantive impacts to the drainage and water features as elements of the landscape. There would be no greater than a negligible magnitude of change to these medium sensitivity landscape features from the minor works to the bridges and culverts associated with the drainage features and **negligible effects**.

Effects on Landscape Character

National Character Area (NCA) 48: Trent and Belvoir Vales

- 6.7.16 At construction stage the proposal would cause some limited, very local adverse effects, but such effects would not be significant given the geographical extent of NCA 48, its characteristics and the temporary nature of the construction phase. A more detailed assessment is provided below.
- 6.7.17 The extent of NCA48 is such that it covers a large swathe of the landscape within which energy infrastructure, in the form of coal fired power stations and their associated electricity distribution infrastructure, has been an established characteristic for many years. The Site does not lie within an especially sensitive part of the NCA, nor is the NCA itself an especially sensitive one in the context of the wider landscape of England as a whole.
- 6.7.18 The construction works associated with the Proposed Development would give rise to short term effects which would extend across only a very limited proportion of the NCA as a whole, with the effects associated with the construction of the more prominent built elements, i.e. the Onsite Substation and BESS, located in an area

- immediately adjacent to the former West Burton Power Station site, where the local landscape character is influenced to a notable degree by the existing energy development.
- 6.7.19 In this context the magnitude of change to the landscape character of NCA48 as a whole during the construction phase, would be no greater than low, which in combination with a medium sensitivity would result in **moderate to minor effects**, which are **non-significant**.

‘Mid Notts Farmlands’ and ‘Trent Washlands’ Character Areas

- 6.7.20 The construction phase would cause notable, but temporary and highly localised effects upon the ‘Mid Notts Farmlands’ and ‘Trent Washlands’ Character Areas due to the extent and size of the Proposed Development.
- 6.7.21 **Figure 6.7 - SZTV and Landscape Character [EN010163/APP/6.4.6]** illustrates the extent of theoretical visibility of the Proposed Development following completion, within those parts of the ‘Mid Notts Farmlands’ and ‘Trent Washlands’ which lie within the study area, and therefore also provides an indication of the extent of visibility of the construction works. It should however be noted that the ZTV does not take into account any screening by hedgerows, which would in reality serve to limit the potential for visibility of the construction works to a far smaller extent of the two character areas, as is demonstrated with reference to the Viewpoints in **Appendix 6.1 – Photographic Record [EN010163/APP/6.3.6]**.
- 6.7.22 The Onsite Substation and BESS are both located in the area immediately adjacent to the former West Burton Power Station site, which in part helps to limit the potential for effects on landscape character associated with the construction of these elements of the Proposed Development.
- 6.7.23 The construction phase impacts would only occur across a relatively limited proportion of the ‘Mid Notts Farmlands’ and ‘Trent Washlands’ LCAs, with the vast majority of the two LCAs having no visibility of the Proposed Development. There would be a low to medium magnitude of change during the construction period, which in combination with a medium sensitivity would result in a **moderate, non-significant effect**.

Landscape Character of the Site

- 6.7.24 The construction phase would cause notable, but temporary effects upon the Landscape Character of the Site, due to the extent and size of the Proposed

- Development, albeit that the majority of the important landscape features at the site, such as the areas of woodland, trees and the majority of the hedgerow network, would not be directly impacted by the construction works.
- 6.7.25 The character of the Site is currently that of an agricultural landscape, influenced to some degree by the nearby energy generation infrastructure at the former West Burton and Cottam Power Station sites and their associated overhead electricity lines and pylons. During the construction phase the character of the Site itself would be changed to that of a construction site for a solar farm across the majority of the Site, and that of a construction site for a Substation and BESS in the areas these elements are located.
- 6.7.26 The sensitivity of the Site is medium and the magnitude of change would be High during construction. This would result in a localised **moderate to major, significant effect** on the landscape character of the Site itself.

Effects on Visual Receptors

- 6.7.27 During the construction phase there would be potential for some additional visual effects on visual receptors (residential properties, public rights of way and roads) beyond those identified for the operational phase below. These would be primarily associated with the movement of plant and workforce within the Site.
- 6.7.28 Further mitigation has been included as part of the final layout proposals, which has included, where relevant, further offsetting of the Proposed Development from visual receptors when compared to the parameters set out at the PEIR stage and new vegetation planting to help minimise impacts, albeit any such new planting would not yet have matured during the construction period. It is however acknowledged that as a worst-case scenario, there may be the potential for some short term significant visual effects on nearby visual receptors during the construction phase. These effects would however be no greater than those which are set out for Year 1 of the Operational Phase, discussed subsequently. The construction phase effects on visual receptors are summarised in Table 6.7.

Effects on Landscape Designations

West Lindsey District Area of Great Landscape Value

- 6.7.29 The SZTV, **Figure 6.6b SZTV and VP Locations (5km radius) [EN010163/APP/6.4.6]**, illustrates the potential for visibility of the Proposed Development from part of the Area of Great Landscape Value (AGLV) and during the construction phase there would be potential for some additional visibility from the

- construction machinery, vehicles and staff. However, in reality, any such potential for views would be highly limited, in part due the screening effects of additional vegetation in the landscape which are not considered in the SZTV mapping.
- 6.7.30 The closest part of the AGLV to the construction activity associated with the Proposed Development would be over 1km, with the majority of the Proposed Development lying several kilometres from the AGLV. This, combined with the relatively low height of the proposed panels, which are now further reduced in height to 3m, and the construction works associated with the Onsite Substation and BESS both being seen in the immediate context of the existing built development at the former Power Station site, would mean there would be no potential for any greater than a very low magnitude of change and a **minor effect** on either visual amenity or landscape character within the AGLV during the construction phase.

Operation Phase

Effects on Landscape Features

- 6.7.31 Once construction is completed there would be no further adverse effects on the landscape features of the Site. Indeed, the Proposed Development provides for notable planting of new trees, woodland and hedgerows, as well as species rich planting across the majority of the Site, as described further in Section 6.8.
- 6.7.32 The magnitude of change of these impacts would be low at Year 1, resulting in **minor beneficial effects**, increasing to be medium by Year 15 as the planting develops, resulting in **moderate beneficial effects**, as considered in further detail below.

Vegetation and Ground Cover

- 6.7.33 There are some small areas of existing woodland within the Site, further details of which are set out in **Appendix 6.5 - Arboricultural Impact Assessment [EN010163/APP/6.3.6]** and also within the Ecology Chapter of the ES. In all cases this woodland is to be retained as part of the Proposed Development, with an appropriate standoff also applied from any built elements, including the fences and access tracks to be used during the operational period, to ensure no potential for any negative effects to these high sensitivity landscape features. In addition, the landscape proposals include for small areas of new woodland planting. This would represent a low magnitude of positive change at year one, resulting in a **minor**

- beneficial effect**, rising to a medium magnitude of positive change at Year 15, resulting in a **moderate, non-significant, beneficial effect**.
- 6.7.34 There are also many individual trees located within the Site, primarily within the hedgerow network. Further details of which are set out in **Appendix 6.5 - Arboricultural Impact Assessment [EN010163/APP/6.3.6]**. All trees are to be retained as part of the Proposed Development, with an appropriate standoff also applied from any built elements, including the fences and access tracks to be used during the operational period, to ensure no potential for any effects to these high sensitivity landscape features. In addition, the landscape proposals include for numerous additional trees across the Site, primarily planted within the hedgerow network. This would represent a low magnitude of positive change at year one, resulting in a **minor beneficial effect**, rising to a medium magnitude of positive change at Year 15, resulting in a **moderate, non-significant, beneficial effect** at Year 15.
- 6.7.35 There are numerous existing hedgerows at the Site, further details of which are set out in **Appendix 6.5 - Arboricultural Impact Assessment [EN010163/APP/6.3.6]** and also within the **Ecology and Biodiversity Chapter 7 [EN010163/APP/6.3.7]** of the ES. No additional hedgerow removal would be required during the operational phase, beyond that already assessed during the construction phase, with an appropriate standoff also applied from any built elements, including the fences and access tracks to be used during the operational period, to ensure no potential for any effects to these high sensitivity landscape features. In addition, the landscape proposals include for numerous additional new and enhanced hedgerows across the Site, alongside allowing the existing hedgerow network to grow out to maximise its biodiversity potential and to assist with screening of the built elements of the Proposed Development. Further details on the benefits to biodiversity of allowing the hedgerows to grow out are set out in the **Ecology and Biodiversity Chapter 7 [EN010163/APP/6.3.7]**. In total over 25km of new hedgerow is proposed across the site. This represents a net increase of over 23km of hedgerows once the sections of hedgerows to be removed during the construction period are considered. This would represent a low magnitude of positive change at year one, resulting in a **minor beneficial effect**, rising to a medium magnitude of positive change at Year 15, resulting in a **moderate, significant, beneficial effect**.

- 6.7.36 The remainder of the ground cover is currently arable or pastoral farmland, which is a less sensitive landscape feature, with a medium sensitivity. There would be no further negative effects on this farmland during the operational period beyond those already discussed in relation to the construction phase. In addition, the landscape proposals provide for the planting of new species rich grassland across the Site, to help maximise its biodiversity potential. Further details on the benefits to biodiversity of the proposed grassland are set out in the **Ecology and Biodiversity Chapter 7 [EN010163/APP/6.3.7]** This planting would represent a low magnitude of positive change at year one, resulting in a **minor beneficial effect**, rising to a medium magnitude of positive change at Year 15, resulting in a **moderate, non-significant, beneficial effect** to the ground cover of the Site as a landscape feature.

Topography

- 6.7.37 The Proposed Development would be constructed almost entirely at grade with the existing topography of the landscape, with only very minor earthworks associated with the construction of the development of the Onsite Substation and BESS. There would be **no effects** on the topography of the Site during the operational phase beyond those discussed in relation to the construction phase.

Drainage and Water Features

- 6.7.38 The drainage and water features at the Site are discussed in detail in **Chapter 8- Hydrology, Hydrogeology, Flood Risk and Drainage [EN010163/APP/6.3.8]**. Standoffs from these features have been built into the Proposed Development. As such, there would continue to be **no effects** to the drainage and water features as elements of the landscape during the operational phase.

Effects on Landscape Character

National Character Area (NCA) 48: Trent and Belvoir Vales

- 6.7.39 Once operational the Proposed Development would cause some limited, local adverse effects, but such effects would not be significant at Year 1 or Year 15 given the geographical extent of NCA 48 and its characteristics. More detailed assessment is provided below.
- 6.7.40 The extent of NCA48 is such that it covers a large swathe of the landscape within which energy infrastructure, in the form of coal fired power stations and their associated electricity distribution infrastructure, has been an established

characteristic for many years. The Site does not lie within an especially sensitive part of the NCA, nor is the NCA itself an especially sensitive one in the context of the wider landscape of England as a whole. **Figure 6.7 - SZTV and Landscape Character [EN010163/APP/6.4.6]** illustrates the extent of theoretical visibility within that part of NCA48 which lies within the study area. It should however be noted that the ZTV does not take into account any screening by hedgerows, which would in reality serve to limit the potential for visibility of the Proposed Development to a far smaller extent of NCA48, as is demonstrated with reference to the Viewpoints in **Appendix 6.1- Photographic Record [EN010163/APP/6.3.6]**. The Proposed Development would therefore give rise to effects which would extend across only a very limited proportion of the NCA as a whole, with the effects associated with the more prominent built elements, i.e. the Substation and BESS, located in an area immediately adjacent to the former West Burton Power Station site, where the local landscape character is influenced to a notable degree by the existing energy development.

- 6.7.41 In this context the magnitude of change to the landscape character of NCA48 as a whole, would be no greater than low at both Year 1 and Year 15, resulting in **moderate to minor, non-significant effects**.

‘Mid Notts Farmlands’ and ‘Trent Washlands’ Character Areas

- 6.7.42 The operational phase would cause notable, but highly localised effects upon the ‘Mid Notts Farmlands’ and ‘Trent Washlands’ Character Areas due to the extent and size of the Proposed Development. Such effects would be significant at both Year 1 and Year 15 for those parts of the LCAs in which the Site is located, as discussed further subsequently, however for the LCAs as a whole the effects would not be significant. More detailed assessment is provided below.
- 6.7.43 The ‘Mid Notts Farmlands’ covers the whole of the western section of the Site, plus the area in which the Substation and BESS would be located. **Figure 6.7 - SZTV and Landscape Character [EN010163/APP/6.4.6]** illustrates the extent of theoretical visibility within that part of the ‘Mid Notts Farmlands’ which lies within the study area. It should however be noted that the ZTV does not take into account any screening by hedgerows, which would in reality serve to limit the potential for visibility of the Proposed Development to a far smaller extent of the character area, as is demonstrated with reference to the Viewpoints in **Appendix 6.1-**

- Photographic Record [EN010163/APP/6.3.6].** The former West Burton Power Station Site is located within the ‘Mid Notts Farmlands’ which, along with its associated electricity distribution infrastructure, has been an established characteristic of views from that part of the character area in which the Site is located for many years. The Onsite Substation and BESS are both located in the area immediately adjacent to the former West Burton Power Station site, which in part helps to limit the potential for effects on landscape character to this part of the character area.
- 6.7.44 However, it is recognised that the Proposed Development would cover a greater proportion of the ‘Mid Notts Farmlands’ LCA than it would of NCA48. In this context, the magnitude of change to the landscape character of the ‘Mid Notts Farmlands’ LCA, would be greater than that to NCA48. However, the impacts would still only occur across a relatively limited proportion of the ‘Mid Notts Farmlands’ LCA, with the vast majority of the LCA having no visibility of the Proposed Development. There would be a low to medium magnitude of change at Year 1, resulting in a **moderate, non-significant, effect**. By Year 15, the landscape mitigation proposals would have begun to mature and would provide additional benefits to landscape character which would serve to reduce the negative impact of the introduction of the built infrastructure as well as serving to limit the visibility of the Proposed Development from across the character area. The magnitude of change would reduce to low, resulting in **moderate to minor, non-significant effects**.
- 6.7.45 The ‘Trent Washlands’ covers the whole of the eastern section of the Site, other than the area in which the Onsite Substation and BESS would be located. Figure 6.7 illustrates the extent of theoretical visibility within that part of the ‘Trent Washlands’ which lies within the study area. It should however be noted that the ZTV does not take into account any screening by hedgerows, which would in reality serve to limit the potential for visibility of the Proposed Development to a far smaller extent of the character area, as is demonstrated with reference the Viewpoints in **Appendix 6.1- Photographic Record [EN010163/APP/6.3.6]**. Although the former West Burton Power Station Site is located within the adjacent ‘Mid Notts Farmlands’, its associated electricity distribution infrastructure runs through the ‘Trent Washlands’, and has been an established characteristic of views from that part of the character area in which the Site is located for many years.

- 6.7.46 Any impacts would only occur across a relatively limited proportion of the ‘Trent Washlands’ LCA, with the greater part of the LCA having no visibility of the Proposed Development. There would be a low to medium magnitude of change at Year 1, resulting in a **moderate, non-significant, effect**. By Year 15, the landscape mitigation proposals would have begun to mature and would provide additional benefits to landscape character which would serve to reduce the negative impact of the introduction of the built infrastructure as well as serving to limit the visibility of the Proposed Development from across the character area. The magnitude of change would reduce to low, resulting in **moderate to minor, non-significant effects**.

Landscape Character of the Site

- 6.7.47 The operational phase would cause notable effects upon the Landscape Character of the Site, due to the extent and size of the Proposed Development, albeit that the majority of the important landscape features at the site, such as the areas of woodland, trees and the majority of the hedgerow network, would not be directly impacted by the Proposed Development. Such effects would be significant at Year 1 and Year 15. More detailed assessment is be provided below.
- 6.7.48 The character of the Site is currently that of an agricultural landscape, influenced to some degree by the nearby energy generation infrastructure at the former West Burton and Cottam Power Station sites and their associated overhead electricity lines and pylons. During the operational phase the character of the Site itself would be changed to that of a solar farm across the majority of the Site, and that of an Onsite Substation and BESS in the areas these elements are located. The sensitivity of the Site is medium and the magnitude of change would be High at Year 1, reducing to Medium-High at Year 15, once the landscape proposals have begun to mature. This would result in a localised **moderate to major, significant effect** on the landscape character of the Site itself at Year 1, reducing to a **moderate, significant effect** at Year 15.

Effects on Landscape Designations

West Lindsey District Area of Great Landscape Value

- 6.7.49 The SZTV, **Figure 6.6b SZTV and VP Locations (5km radius) [EN010163/APP/6.4.6]**, illustrates the potential for visibility of the Proposed Development from part of the Area of Great Landscape Value (AGLV). However, in reality, any such potential for views would be highly limited, in part due the screening effects of additional vegetation in landscape which are not considered in the SZTV mapping.
- 6.7.50 The closest part of the AGLV to the built form within the Proposed Development would be over 1km, with the majority of the Proposed Development lying several kilometres from the AGLV. This, combined with the relatively low height of the proposed panels, which are now further reduced in height to 3m, and the substation and BESS both being seen in the immediate context of the existing built development at the former Power Station site, would mean there would be no potential for any greater than a very low magnitude of change and a **minor effect** on either visual amenity or landscape character within the AGLV at both Year 1 and Year 15.

Effects on Visual Receptors

Residential Receptors

Sturton le Steeple

- 6.7.51 The Site is located to both the east and west of the village of Sturton le Steeple. At the outset of the project, it was determined that an appropriate offset would be required from the village, and this is reflected in the manner which the Site boundary has been drawn away from the village. Furthermore, within the Site boundary, the development is then further set back beyond existing and proposed planting, such that the offsets are further increased. The majority of the village lies over 500m from any built infrastructure within the Proposed Development, with no residential properties within 100m of any built infrastructure. As such, the potential for views of the solar energy element of the Proposed Development from the majority of residential properties within the village is highly limited. This has also reduced further following the reduction in the panel height from the 3.6m parameter which was assumed at the PEIR stage to the updated 3m height. Similarly, the Site boundary has also been offset from the village in such a manner that the proposed BESS and substation would only be visible from a very small number of properties with the substation being located a minimum of 400m from the nearest residential property within the village and the BESS a minimum of 450m

- from the nearest residential property within the village. These elements of the Proposed Development have also been located close to the existing former West Burton Power Station site, such that any views of the proposed BESS and substation would be seen in the context of the already developed power station site immediately beyond.
- 6.7.52 Several Viewpoints have been provided from within or close to Sturton le Steeple, including VPs 1, 3 and 4. An assessment of effects at each of these specific locations is set out in **Appendix 6.3 – Viewpoint Assessment [EN010163/APP/6.3.6]**.
- 6.7.53 Further mitigation has been included as part of the final layout proposals when compared with the worst case parameters assessed in the PEIR, which has included where necessary further offsetting of the Proposed Development from the village and new vegetation planting to help minimise impacts.
- 6.7.54 As a result it is considered that there would be no potential for significant visual effects on any of the properties in the village at either Year 1 or Year 15. The sensitivity of the residential properties is high and the magnitude of impact as a worst-case would be low to medium, resulting in **moderate, non-significant, effects**. For the majority of properties however the magnitude of impact would be no greater than very low, resulting in **minor effects**.
- 6.7.55 Each of the properties in Sturton le Steeple which lie within 500m of any built infrastructure within the Proposed Development are discussed further in **Appendix 6.4 - Residential Visual Amenity Assessment [EN010163/APP/6.3.6]**.
- North Leverton with Habbleshthorpe*
- 6.7.56 North Leverton with Habbleshthorpe is located to the south of the Proposed Development. As with Sturton le Steeple, it was also determined at the outset of the project that an appropriate offset would be required from the village, and this is reflected in the manner which the Site boundary has been drawn away from the village. Furthermore, within the Site boundary, the development is then further set back beyond existing and proposed planting, such that the offsets are further increased. The majority of the village lies over 500m from any built infrastructure within the Proposed Development, with no residential properties within 250 m of any built infrastructure. As such, the potential for views of the solar energy element of the development from the majority of residential properties within the village, which are high sensitivity receptors, is highly limited. This has also reduced further

- following the reduction in the panel height from the 3.6m parameter which was assumed at the PEIR stage to the updated 3m height. The village is also well separated from the proposed BESS and substation both of which would lie over 2km away, such that they would be unlikely to be seen. Viewpoints 15 and 16 illustrate views from North Leverton with Habbleshthorpe.
- 6.7.57 Further mitigation has been included as part of the final layout proposals when compared with the worst case parameters assessed in the PEIR, which has included the removal of the reserve access point to the north of the village and new vegetation planting to help minimise impacts. At both Year 1 and Year 15 the magnitude of impact would be no greater than low to medium, resulting in **moderate, non-significant effects** on a very small number of properties in the village, with the majority experiencing **no effect**.
- 6.7.58 Each of the properties in North Leverton with Habbleshthorpe which lie within 500m of any built infrastructure within the Proposed Development are discussed further in **Appendix 6.4 - Residential Visual Amenity Assessment [EN010163/APP/6.3.6]**.
- South Wheatley*
- 6.7.59 South Wheatley is located to the north-west of the Site. Almost the entirety of the village lies over 500m from any built infrastructure within the Proposed Development, with no residential properties within 300 m of any built infrastructure. Due to the offset between the village and the Proposed Development, the potential for views of the solar energy element of the Proposed Development is highly limited from the majority of residential properties, which are high sensitivity receptors. The village is also well separated from the proposed BESS and substation both of which would lie over 2km away, such that they would be unlikely to be seen. Viewpoint 22 illustrates views from South Wheatley.
- 6.7.60 Further mitigation has been included as part of the final layout proposals when compared with the worst case parameters assessed in the PEIR, which has included further offsetting of the built elements of the Proposed Development from the village, which are set back a further 25m into the Site, and new vegetation planting to help minimise impacts. However, at both Year 1 and Year 15 the magnitude of impact would be no greater than low, resulting in **moderate to minor effects** on a very small number of properties in the village, with the majority experiencing **no effect**.

- 6.7.61 Each of the properties in or close to South Wheatley which lie within 500m of any built infrastructure within the Proposed Development are discussed further in **Appendix 6.4 - Residential Visual Amenity Assessment [EN010163/APP/6.3.6]**.

Fenton

- 6.7.62 The small cluster of properties at Fenton lie between Sturton le Steeple and North Leverton with Habbleshthorpe, close to the Site boundary. At the outset of the Proposed Development, it was determined that an appropriate offset would be required from the properties, and this is partly reflected in the manner which the Site boundary has been drawn. In addition, following the EIA Scoping exercise, the parameters for the Proposed Development were revised in the vicinity of the properties, with an area shown for Biodiversity Mitigation to both the north and south of Fenton, following any works required for the electrical connection during the construction period, in place of the panels which were originally proposed for the area.

- 6.7.63 Further mitigation has been included as part of the final layout proposals, which has included further offsetting of the Proposed Development from the properties and new vegetation planting to help minimise impacts. As a result several of the properties in Fenton now lie over 500m from any built infrastructure within the Proposed Development, with no residential properties within 250 m of any built infrastructure. In addition, the potential for impacts has also reduced further following the reduction in the panel height from the 3.6m parameter which was assumed at the PEIR stage to the updated 3m height.

- 6.7.64 As a result it is considered that there would be no significant visual effects on any of the properties at either Year 1 or Year 15. The sensitivity of the residential properties is high and impacts as a worst-case could be low to medium, resulting in **moderate, non-significant effects**. For the majority of properties however the magnitude of impact would be no greater than very low, resulting in **minor effects**.

- 6.7.65 Each of the properties in Fenton which lie within 500m of any built infrastructure within the Proposed Development are discussed further in the RVAA at **Appendix 6.4 - Residential Visual Amenity Assessment [EN010163/APP/6.3.6]**.

Individual properties

- 6.7.66 There are also a number of small clusters of properties as well as individual properties throughout the study area, which lie outside of the villages and settlements set out above.
- 6.7.67 Further mitigation has been included as part of the final layout proposals when compared with the worst case parameters assessed in the PEIR, which has included further offsetting of the Proposed Development from these properties and new vegetation planting to help minimise impacts. In addition, the potential for impacts has also reduced further following the reduction in the panel height from the 3.6m parameter which was assumed at the PEIR stage to the updated 3m height.
- 6.7.68 As a result it is considered that there would be no potential for significant visual effects on any of the properties at either Year 1 or Year 15. The sensitivity of the residential properties is high and impacts as a worst-case would be low to medium, resulting in **moderate, non-significant effects**. For the majority of properties however the magnitude of impact would be no greater than very low, resulting in **minor effects**.
- 6.7.69 A RVAA has been undertaken to consider individual properties within 500m of the Proposed Development in further detail and is included at **Appendix 6.4 Residential Visual Amenity Assessment [EN010163/APP/6.3.6]**.

Users of publicly accessible bridleways and footpaths

Trent Valley Way

- 6.7.70 The Trent Valley Way passes through the Site as it runs between South Wheatley and Laneham. Several Viewpoints have been provided from the route, including VPs 1, 10, 11, 13, 18, 20 and 21. An assessment of effects at each of these specific locations on the Trent Valley Way is set out in **Appendix 6.3 – Viewpoint Assessment [EN010163/APP/6.3.6]**.
- 6.7.71 At the outset of the project, it was determined that an appropriate offset would be required from the Trent Valley Way and although this was not identified specifically on the Parameters Plans at the PEIR stage, it was identified that this would be included as part of the final layout proposals. Such an offset has indeed been included as part of the final proposals which comprises of a 7.5m distance between the centre line of the route and the fence, with the solar panels set back a further 3m beyond the fence. Therefore, for those sections of the route which would pass within the Proposed Development on both sides, the route would pass through a

- 15m wide undeveloped area. Within this area much of the route is already lined on both sides by existing hedgerows. These would serve to screen and filter views of the fence and panels beyond, which would be set back 5m from the hedgerows. In addition, the potential for impacts has also reduced further following the reduction in the panel height from the 3.6m parameter which was assumed at the PEIR stage to the updated 3m height.
- 6.7.72 Nonetheless, there would be the potential for significant visual effects at Year 1 on users of a small part of the route, as discussed further subsequently at paragraphs 6.7.80 and 6.7.84. This would apply to those sections which have clear, open views across part of the Site, which are not blocked by existing hedgerows or other vegetation. The sensitivity of recreational users of the route is high and impacts as a worst-case would be medium, resulting in **major to moderate, significant effects**. For the majority of the route however the magnitude of impact at Year 1 would be no greater than low, resulting in **moderate to minor effects**, with many sections experiencing **no effect**.
- 6.7.73 A series of landscape mitigation and enhancement measures have been included as part of the Proposed Development, and these have been of particular benefit in reducing the potential for visual effects on users of the Trent Valley Way as it passes through the Site. These include allowing existing hedgerows to grow up and be managed at 3m to screen views of the solar panels, plus the planting of new species rich native hedgerows planted with hedgerow trees adjacent to those sections of the route with no existing vegetation. Further details of the proposed planting are summarised in Section 6.8 below and illustrated on **Figure 6.9 Landscape and Ecological Mitigation Strategy [EN010163/APP/6.4.6]**. By Year 15, once this planting has established, the effects on users of the Trent Valley Way would reduce. The magnitude in those locations where it was previously medium would decrease to medium-low, resulting in **moderate-minor effects**. For the majority of the route however the magnitude of impact at Year 15 would now reduce to be no greater than very low, resulting in **minor effects**.
- 6.7.74 Further details regarding the effects on the Trent Valley Way are set out below.
- 6.7.75 Travelling from north to south, the Trent Valley Way first enters the 5km detailed Study Area to the south of Gringley on the Hill. At this point the route lies outside the ZTV and would have no visibility of the Proposed Development. The first point at which the route enters the ZTV is to the north-west of North Wheatley. At this

- point the route would lie over 2km from the Proposed Development and any views of the built development would be no more than glimpses, giving rise to a very low magnitude of change and a **minor effect** at both Year 1 and Year 15.
- 6.7.76 Thereafter the route passes into North Wheatley, which lies outside of the ZTV and from which there would be no visibility of the Proposed Development and then through a part of South Wheatley which also lies outside of the ZTV. The route then passes along Muspit Lane, which also lies for the most part outside of the ZTV, which the exception of a short section represented by VP21. At this point the route would still lie over 1km from any built elements of the Proposed Development, giving rise to a very low magnitude of change and a **minor effect** at both Year 1 and Year 15.
- 6.7.77 From Muspit Lane the route then runs along Blue Stocking Lane, which again lies outside of the ZTV, before turning to run along a track known as High House Road. Theoretical visibility of the Proposed Development would first arise at the highpoint of the track, around 67m AOD, although in reality visibility of the Proposed Development would be notably restricted by the existing hedgerows which line both sides of the route at this point when they are grown out. It is noted however that during the two year period over which the assessment work was undertaken there was regular cutting of the hedgerows such that more open views would be available at times from this location. The view from this section of the route is illustrated by VP20, the photography for which was collected during one of the periods when the hedgerows were cut short. At this point the built elements of the Proposed Development would be around 200m from the route, but noting the more limited nature of the existing vegetation screening whilst the hedgerows are cut short there would be a worst-case medium to low magnitude of change and a **moderate, non-significant effect** at Year 1 and Year 15.
- 6.7.78 From this point the route descends down Maum Hill and the Proposed Development would be located in the fields immediately to its south. However, such is the nature of the existing hedgerows which line both sides of the route at this point, combined with the offset between the route and the built elements of the Proposed Development, there is limited opportunity for any impacts to arise, albeit these opportunities would be greater when the hedgerows are cut short. There would be a worst-case medium to low magnitude of change and a **moderate, non-significant effect** at Year 1, reducing to a very low magnitude and **minor effect** by Year 15.

- 6.7.79 At the bottom of the hill the route then passes underneath the railway line. At this point the Proposed Development would for this first time lie immediately adjacent to the route on both sides. However, as illustrated by VP18, as it first emerges from under the railway the route would lie lower than the surrounding fields and the existing vegetation would prevent any views of the Proposed Development, with **no effects** at Year 1 or Year 15.
- 6.7.80 The route then passes for just less than 1km on a section of Springs Lane where the Proposed Development would lie immediately adjacent to the route on both sides. From here there would be some potential for views of the perimeter fence and solar panels beyond where there are gaps in the existing vegetation. Primarily this relates to a section to the south of the route where there is currently no hedgerow. There are no substantive gaps in the hedgerow which lines the north of the route. Notwithstanding this, where there are gaps in the existing vegetation along this section of the route there would be a medium magnitude of change and a **major-moderate, significant effect** at Year 1. By Year 15, once the new hedgerow planting has established, the effects on users of this section of the route would have reduced. The magnitude in those locations where it was previously medium would decrease to low, resulting in **moderate-minor effects**.
- 6.7.81 For the final section of Springs Lane, heading into Sturton le Steeple, there is no built development either side of the route and although the section lies within the ZTV there would be no views for those heading eastbound on the route (VP1 illustrates the view in the opposite westbound direction at this point and is discussed separately). There would continue to be no views of the Proposed Development as the route passes through the village along Church Street due to the screening effect of intervening buildings.
- 6.7.82 From Church Street the route then turns southwards and crosses into a field running down towards Fenton. At this point the route would lie over 400m from the nearest built elements within the Proposed Development to the east and further offset from the built elements to the west. Whilst this section of the route lies within the ZTV any potential views would be limited by existing vegetation between the route and the Proposed Development. There would be a very low magnitude of change and a **minor effect** at both Year 1 and Year 15.
- 6.7.83 Once in Fenton the route then turns eastwards and runs along Fenton Lane and then continues on once the route is no longer accessible to vehicles until it reaches

- Thornhill Lane. This section is around 2km in length and for much of its length has built elements of the Proposed Development to both sides, however for the first part the built elements are still over 200m away, as illustrated by VP13, and there would continue to be a very low magnitude of change and a **minor effect** at both Year 1 and Year 15.
- 6.7.84 Further to the east along the route there would be potential for views of the perimeter fence and solar panels in close proximity beyond where there is no existing hedgerow vegetation. Primarily this relates to views to the south of the route where there is currently no hedgerow across the majority of this section. There are no substantive gaps in the hedgerow which lines the north of the route until the closest section near to Thornhill Lane. Where there is no existing vegetation to either one or other sides along this section of the route there would be a medium magnitude of change and a **major-moderate, significant effect** at Year 1. For the short section where there is no existing vegetation to either side of the route there would be a high magnitude of change and a **major, significant effect** at Year 1. By Year 15, once the new hedgerow planting has established, the effects on users of this section of the route would have reduced. The magnitude in those locations where it was previously medium or high would decrease to low, resulting in **moderate-minor effects**. It is acknowledged that the experience of walking the route in those locations which are currently open to one or other side would change to some degree should there be hedgerows to both sides of the route. However, there would be a wide gap between the two hedgerows such that the route would retain a pleasant open character, whilst also screening the built elements of the Proposed Development.
- 6.7.85 Once the route reaches Thornhill Lane it turns northwards until it reaches Littleborough Road, where it then turns eastwards again. At this point the built elements of the Proposed Development would lie behind users of the route walking eastwards with **no effects** arising. Once the route reaches Littleborough it runs onto the embankment on the western bank of the River Trent. There would initially be a short section where oblique views towards the built elements of the Proposed Development would be available, but at a distance of over 1km, this would give rise to no more than a very low magnitude of change and a **minor effect** at both Year 1 and Year 15. Thereafter for the remainder of the route the Proposed Development would lie in the opposite direction to the direction of travel with no effects arising.

- 6.7.86 For users travelling in the opposite direction from south to north, the effects would largely be the same but experienced in reverse. Those sections of the Trent Valley Way which pass through the Site itself would experience the greatest effects, but these would be notably reduced by Year 15 once the landscape mitigation had begun to mature.

Other Public Rights of Way

- 6.7.87 Several Public Rights of Way pass through or close to the Site, as discussed in Section 6.6 and illustrated on **ES Figure 3.3- Public Rights of Way Plan [EN010163/APP/6.4.6]**. Several Viewpoints have been provided from these routes, including VPs 6, 7, 8, 12, 17, 23 and 26. An assessment of effects at each of these specific locations on the public rights of way network is set out in **Appendix 6.3 – Viewpoint Assessment [EN010163/APP/6.3.6]**. As with the Trent Valley Way, at the outset of the project, it was determined that appropriate offsets would be required from these routes. Such offsets have been included as part of the final proposals, with a 7.5m offset either side from all PRow included as part of the design principles. In addition, the potential for impacts has also reduced further following the reduction in the panel height from the 3.6m parameter which was assumed at the PEIR stage to the updated 3m height.
- 6.7.88 Nonetheless, it is acknowledged that there would be significant visual effects on users of some sections of the routes at Year 1. This would apply to those sections which have clear, open views across part of the Site, which are not blocked by existing hedgerows or other vegetation. The sensitivity of recreational users of these routes is high and impacts as a worst-case would be medium or high, resulting in **major to moderate**, or **major, significant effects**. For many of the routes however the magnitude of impact would be no greater than low, resulting in **moderate to minor effects**. Further detail regarding each of the PRow are set out in **Appendix 6.6 – Assessment of Public Rights of Way [EN010163/APP/6.3.6]**.
- 6.7.89 A series of landscape mitigation and enhancement measures have been included as part of the Proposed Development, and these have been of particular benefit in reducing the potential for visual effects on users of the public rights of way which pass through or close to the Site. These include allowing existing hedgerows to grow up and be managed at 3m to screen views of the solar panels, plus the planting of new species rich native hedgerows planted with hedgerow trees adjacent to those sections of the route with no existing vegetation. Further details of the proposed

planting are summarised in Section 6.8 below and illustrated on **Figure 6.9 Landscape and Ecological Mitigation Strategy [EN010163/APP/6.4.6]**. By Year 15, once this planting has established, the effects on users of the public rights of way would reduce. The magnitude in those locations where it was previously medium or high would decrease to medium-low, resulting in **moderate-minor effects**. For the majority of the routes however the magnitude of impact at Year 15 would now reduce to be no greater than very low, resulting in **minor effects**.

- 6.7.90 Further details regarding the effects on each of the PROW are set out in **Appendix 6.6 – Assessment of Public Rights of Way [EN010163/APP/6.3.6]**.

Users of the transport network
A620

- 6.7.91 The A620 runs between Beckingham and Retford and passes to the north-west of the Proposed Development. As illustrated on the SZTV plan at **Figure 6.6a - Screened Zone of Theoretical Visibility (SZTV) and viewpoint (VP) Locations (10km radius) [EN010163/APP/6.4.6]**, much of the route would have no potential for visibility of the Proposed Development, including the entire section between North Wheatley and Retford. Some potential visibility is illustrated on the section between Beckingham and North Wheatley, as represented by Viewpoint 24. However, the majority of this section is located at a distance of at least 2km from the Proposed Development, which serves to limit the potential for visual effects.
- 6.7.92 Users of the A Road would be of medium sensitivity at most. Further mitigation has been included as part of the final layout proposals, which includes new vegetation planting to help minimise impacts. However, at both Year 1 and Year 15 the magnitude of impact on users of the A620 would be no greater than low, resulting in **moderate to minor effects**. Furthermore, such effects would only apply to very short sections of the route where views are not screened by existing roadside or other vegetation, with much of the route experiencing **no effect**.

A156

- 6.7.93 The A156 runs between Gainsborough and Torksey Lock and passes to the east of the Proposed Development. As illustrated on the Screened SZTV plan at **Figure 6.6a - Screened Zone of Theoretical Visibility (SZTV) and viewpoint (VP) Locations (10km radius) [EN010163/APP/6.4.6]**, parts of the route would have no potential for visibility of the Proposed Development, including almost the entire section

- between Marton and Torksey Lock. Some potential visibility is illustrated on the section between Lea and Marton, however, the majority of this section is located at a distance of around 3km from the built elements of the Proposed Development, which serves to limit the potential for visual effects.
- 6.7.94 Users of the A Road would be of medium sensitivity at most. Further mitigation has been included as part of the final layout proposals, which includes new vegetation planting to help minimise impacts. However, at both Year 1 and Year 15 the magnitude of impact on users of the A156 would be no greater than low, resulting in **moderate to minor effects**. Furthermore, such effects would only apply to very short sections of the route where views are not screened by existing roadside or other vegetation, with much of the route experiencing **no effect**.

A631

- 6.7.95 The A631 runs between Gainsborough and Gringley on the Hill and passes to the north of the Proposed Development. As illustrated on the Screened ZTV plan at **Figure 6.6a - Screened Zone of Theoretical Visibility (SZTV) and viewpoint (VP) Locations (10km radius) [EN010163/APP/6.4.6]**, much of the route would have no potential for visibility of the Proposed Development, but some potential visibility is illustrated on the section between Beckingham and Gringley on the Hill, as represented by Viewpoint 25. However, the majority of this section is located at a distance of at least 5km from the Proposed Development, which serves to limit the potential for visual effects.
- 6.7.96 Users of the A Road would be of medium sensitivity at most. Further mitigation has been included as part of the final layout proposals, which includes new vegetation planting to help minimise impacts. However, at both Year 1 and Year 15 the magnitude of impact on users of the A156 would be no greater than very low, resulting in **minor effects**, with much of the route experiencing **no effect**.

Minor roads

- 6.7.97 In addition, there are also a number of minor roads which pass within, or in close proximity to the Site. These include: Leverton Road/Sturton Road, which runs between Sturton le Steeple and North Leverton with Habbleshthorpe; Station Road/Wheatley Road, which runs between Sturton le Steeple and South Wheatley; Littleborough Road/Low Holland Lane, which runs between Sturton le Steeple and Littleborough, Three Leys Lane/Fenton Lane, that runs from Leverton Road to

- Fenton; and North Street/Common Lane, which runs eastwards from Sturton le Steeple. Also close to the Site are Freeman's Lane and Springs Lane, which run westwards out from Sturton le Steeple.
- 6.7.98 Several Viewpoints have been provided from these roads, including VPs 2, 3, 5, 6, 10, 11 and 14 the locations of which are illustrated on **Figure 6.6c SZTV and VP Locations (2km radius) [EN010163/APP/6.4.6]**.
- 6.7.99 Further mitigation has been included as part of the final layout proposals, which includes further offsetting of the Proposed Development from these roads and new vegetation planting to help minimise impacts. In addition, the potential for impacts has also reduced further following the reduction in the panel height from the 3.6m parameter which was assumed at the PEIR stage to the updated 3m height.
- 6.7.100 Nonetheless, it is acknowledged that there would be significant visual effects on users of some sections of the roads at Year 1. This would apply to those sections which have clear, open views across part of the Site, which are not blocked by existing hedgerows or other vegetation. The sensitivity of users of these roads is medium and magnitude of impact as a worst-case would be medium or high, resulting in **moderate to major to moderate effects**. For many of the routes however the magnitude of impact at Year 1 would be no greater than low, resulting in **moderate to minor effects**.
- 6.7.101 A series of landscape mitigation and enhancement measures have been included as part of the Proposed Development, and these have been of particular benefit in reducing the potential for visual effects on users of the roads which pass through or close to the Site. These include allowing existing hedgerows to grow up and be managed at 3m to screen views of the solar panels, plus the planting of new species rich native hedgerows planted with hedgerow trees adjacent to those sections of the roads with no existing vegetation. Further details of the proposed planting are summarised in Section 6.8 below and illustrated on **Figure 6.9 Landscape and Ecological Mitigation Strategy [EN010163/APP/6.4.6]**. By Year 15, once this planting has established, the effects on users of the roads would reduce. The magnitude in those locations where it was previously medium or high would decrease to medium-low, resulting in **moderate-minor effects**. For the majority of the routes however the magnitude of impact at Year 15 would now reduce to be no greater than very low, resulting in **minor effects**.
- 6.7.102 Further details of each of the routes is set out below.

Leverton Road / Sturton Road

- 6.7.103 Leverton Road / Sturton Road runs between Sturton le Steeple and North Leverton with Hablesthorpe; with the southernmost extent known as Sturton Road and the remainder known as Leverton Road. Viewpoints 3 and 14 have been provided from the route and an assessment of effects at each of these specific locations is set out in **Appendix 6.3 – Viewpoint Assessment [EN010163/APP/6.3.6]**. Although passing through the centre of the Proposed Development, the road is particularly offset from any built development in the eastern section of the Site, with the nearest panels located around 500m away. The built development in the western section is now also further offset from the road when compared to the parameters set out at the PEIR stage, with built development now set back by around 100m, which in combination with the existing hedgerows which line both sides of the route would notably restrict the potential for any views of the Proposed Development. The magnitude of impact at Year 1 and Year 15 would be no greater than low, resulting in **moderate to minor, non-significant effects**.

Station Road/ Wheatley Road

- 6.7.104 Station Road/ Wheatley Road runs between Sturton le Steeple and South Wheatley; with the with the easternmost extent known as Station Road and the remainder known as Wheatley Road. The Proposed Development would lie to the south of the road, offset from the route to a notable degree, in particular at the extent of the route closest to Sturton le Steeple. A short section of the route, around 250m in length, would pass closer to the panels, but these are now further offset from the road when compared to the parameters set out at the PEIR stage, located at least 50m away and beyond the existing hedgerow which lines the road. The magnitude of impact at Year 1 and Year 15 would be no greater than low, resulting in **moderate to minor, non-significant effects**.

Littleborough Road / Low Holland Lane

- 6.7.105 Littleborough Road / Low Holland Lane runs between Sturton le Steeple and Littleborough; with the with the short section to the west of the Catchwater Drain known as Low Holland Lane and the remainder known as Littleborough Road. Viewpoints 2, 10 and 11 have been provided from the route and an assessment of effects at each of these specific locations is set out in **Appendix 6.3 – Viewpoint Assessment [EN010163/APP/6.3.6]**. The section of the route known as Low

- Holland Lane lies to the west of the eastern section of the Site and would have very little potential for visibility of the Proposed Development due to screening by the buildings and vegetation which line that section of the road, in combination with the offset from the Proposed Development.
- 6.7.106 Once the road reaches the Catchwater Drain the potential for views across the landscape begin to open up, as illustrated by Viewpoint 2. It is here the road become known as Littleborough Road. However, at this point the route is crossed by two adjacent overhead electricity transmission lines, with the Proposed Development set back beyond these such that any views of the panels would remain limited at this point. Thereafter, further eastwards along the road, the panels would be located to both sides of the route for around 1.75km, but offset in both directions, and beyond the existing hedgerows which line both sides of the greater part of the route. At this point there would no longer be any built elements of the Proposed Development to the north of the road, and the panels to the south would be even further set back from the road, beyond another overhead electricity transmission line. The final section of the route as it approaches Littleborough would be located close to the eastern ecology mitigation area, but would be notably offset from the built elements of the Proposed Development, with Littleborough itself located over 1km from the nearest solar panels. The worst-case magnitude of impact at Year 1 would be medium, resulting in **moderate, non-significant effects**. By Year 15 the magnitude would reduce to medium-low, resulting in **moderate-minor effects**.

Three Leys Lane/ Fenton Lane

- 6.7.107 Three Leys Lane/ Fenton Lane runs from Leverton Road to Fenton; with the western extent known as Three Leys Lane and the section to the east of the Catchwater Drain known as Fenton Lane. Viewpoints 13, and 14 have been provided from the route and an assessment of effects at each of these specific locations is set out in **Appendix 6.3 – Viewpoint Assessment [EN010163/APP/6.3.6]**. The section of the route known as Three Leys Lane would have no built elements of the Proposed Development to either its north or south, with any longer distance views towards the Proposed Development severely restricted by the existing hedgerows which line both sides of the route. Even at the closest point of the road to the western section of the site, represented by Viewpoint 14, there would still be screening by the existing hedgerows which line Leverton Road, with the panels also being offset from Leverton Road.

- 6.7.108 The point at which the route becomes known as Fenton Lane is illustrated by Viewpoint 13. This section of road is also the route of the Trent Valley Way, discussed separately. At this point the built elements of the Proposed Development are still over 200m away with limited potential for impacts. Further to the east along the route there would be potential for views of the perimeter fence and solar panels in close proximity beyond where there is no existing hedgerow vegetation. Primarily this relates to views to the south of the route where there is currently no hedgerow across the majority of this section. By Year 15 however, once the new hedgerow planting has established, the effects on users of this section of the route would have reduced. The worst-case magnitude of impact at Year 1 would be high, resulting in **major-moderate, significant effects**. By Year 15 the magnitude would reduce to medium-low, resulting in **moderate-minor effects**.

North Street/Common Lane

- 6.7.109 North Street/Common Lane runs eastwards from Sturton le Steeple; with the western extent known as North Street and the section beyond the extents the village known as Common Lane. Restricted Byway RB32 [Sturton le Steeple] is the reference given to Common Lane beyond the point at which it ceases to be open to all vehicular traffic and is discussed separately within the assessment of the PRow network. The North Street section of the route would have no potential for views of the Proposed Development due to screening by intervening properties, built form and vegetation which line the road, resulting in **no effect**.

Freeman's Lane

- 6.7.110 Freeman's Lane runs westwards from Sturton le Steeple. Restricted Byway RB31 [Sturton le Steeple] is the reference given to Freeman's Lane beyond the point at which it ceases to be open to all vehicular traffic and is discussed separately within the assessment of the PRow network. Viewpoint 4 is located on the road and an assessment of effects at this specific location is set out in **Appendix 6.3 – Viewpoint Assessment [EN010163/APP/6.3.6]**. An offset has been included between the Proposed Development and Sturton le Steeple and this serves to limit the potential for any views from the section of Freeman's Lane which is open to all vehicular traffic. There is also notable existing hedgerow vegetation lining the road, which in combination with the buildings along the road serve to further restrict potential

visibility. The magnitude of impact at Year 1 and Year 15 would be no greater than low, resulting in **moderate to minor effects**

Springs Lane

- 6.7.111 Springs Lane runs westwards from Sturton le Steeple. Restricted Byway RB31 [Sturton le Steeple] is the reference given to Springs Lane beyond the point at which it ceases to be open to all vehicular traffic, with this route also forming part of the Trent Valley Way, and is discussed separately within the assessment of the Trent Valley Way. Viewpoint 1 is located on the road and an assessment of effects at this specific location is set out in **Appendix 6.3 – Viewpoint Assessment [EN010163/APP/6.3.6]**. An offset has been included between the Proposed Development and Sturton le Steeple and this serves to limit the potential for any views from the section of Springs Lane which is open to all vehicular traffic. There is also notable existing hedgerow vegetation lining the road, which in combination with the buildings along the road serve to further restrict potential visibility. The magnitude of impact at Year 1 and Year 15 would be no greater than low, resulting in **moderate to minor effects**.

Decommissioning Phase

- 6.7.112 The effects during decommissioning are expected to be similar at first to those during the construction period, due to the presence of visible machinery, vehicles and workers, but with reinstatement then carried out to ensure that the beneficial effects of the new hedgerow and tree planting continue once the decommissioning process is completed. There would also be no hedgerow removal required as there would be during the construction period.
- 6.7.113 The following Table 6.5 identifies the likely effects during decommissioning, with further details regarding the nature of the potential effects identified in the assessment of construction phase effects, which the decommissioning phase would be very similar to.

Table 6.5- Decommissioning Effects

Receptor	Sensitivity	Magnitude	Level of Effect	Significant
Landscape Features				
Vegetation and Ground Cover	High	Low	Moderate/Minor	No

Topography	Medium	Negligible	No Effect	No
Drainage and Water Features	Medium	Negligible	No Effect	No
Landscape Character				
National Character Area (NCA) 48: Trent and Belvoir Vales	Medium	Low	Moderate/Minor	No
'Mid Notts Farmlands' and 'Trent Washlands' Character Areas	Medium	Low to Medium	Moderate	No
Landscape Character of the Site	Medium	High	Moderate/Major	Yes
Visual Receptors				
Residential Receptors	High	Medium-low	Moderate	No
Users of publicly accessible bridleways and footpaths	High	Medium-low	Moderate	No
Users of the transport network	Medium	Medium-low	Moderate-minor	No
Landscape Designations				
West Lindsey District Area of Great Landscape Value	High	Very Low	Minor	No

6.8 Mitigation and Enhancement

6.8.1 Mitigation measures may include:

- Avoidance of effects (i.e. designing out impacts);
- Reduction in magnitude of effects (e.g. through planting vegetation to screen or filter views); and
- Compensation for effects (which may include enhancements to offset any adverse effects).

6.8.2 The primary mitigation adopted in relation to landscape and visual matters is that which has been embedded within the design of the Proposed Development and comprises the consideration given to avoiding and minimising landscape and visual effects during the evolution of the Proposed Development layout. This is sometimes referred to as ‘mitigation by design’. This includes protection to existing trees and hedgerows during the construction period, further details on which are set out in **Appendix 6.5 - Arboricultural Impact Assessment [EN010163/APP/6.3.6]**.

6.8.3 In addition, a series of landscape and ecological mitigation and enhancement measures are included as part of the Proposed Development, each of which has been developed collaboratively alongside the project ecologists as set out below and illustrated on **Figure 6.9 Landscape and Ecological Mitigation Strategy [EN010163/APP/6.4.6]**. These are also considered to form embedded mitigation which would be implemented as part of the Proposed Development. Further details of the benefits of the proposed measures for biodiversity are discussed separately in the **Ecology and Biodiversity Chapter 7 [EN010163/APP/6.2.7]** of the ES.

- Existing hedgerows allowed to grow up and be managed at 3m;
- Existing hedgerows gapped up where required with locally appropriate mixed native hedgerow species;
- New native hedgerow trees added to existing hedgerows, where appropriate, at approximately 20-50m centres;
- New species rich native hedgerows planted with hedgerow trees adjacent to footpaths and on boundaries with no existing vegetation. Position of new hedge lines reflective of the local landscape pattern and allow for required offset from drainage features;
- Sowing of new areas of species rich grassland under the proposed arrays for grazing by sheep reflective of local soil types and enhancement of existing grassland and verges;
- Planting of new orchards and maintenance of existing orchards to maximise environmental benefits;
- Areas of existing cropland managed for grassland creation and Skylark breeding.
- Enhancements to existing watercourses and creation of wetland areas/water meadows.
- Existing areas of woodland and scrub retained, protected and enhanced where possible.;
- New areas of linear woodland planting and small copses to provide new habitats and screening; and

- New connective footpath links included within green corridors and pedestrian bridge crossings over watercourses.

- 6.8.4 Whilst some individual native hedgerow tree planting, orchards and small woodland copses are proposed, the visual mitigation elements largely comprise of a combination of hedgerow planting and hedgerow management. This would involve growing the existing hedgerows out to 3m height and then their continued maintenance at 3m and planting new native hedgerows, (where boundaries are currently open, either fully or in part including gapping up and repairing existing hedge lines).
- 6.8.5 **Figure 6.9 Landscape and Ecological Mitigation Strategy [EN010163/APP/6.4.6]** shows the existing hedgerow resource across the Site and sets out the intended locations of new planting. At the detailed design stage the species profile of the existing hedgerows will be used to formulate a proposed native hedgerow mix that is responsive to the site character and conditions. Hedgerow vegetation is likely to be specified at 60-80cm (1+0 year bareroot seedlings) to maximise establishment rates. Hawthorn and Blackthorn is likely to form the bulk of the mix at up to 60% with the other key occurring species making up the remaining 40%.
- 6.8.6 In terms of predicting growth rates at the assessment years and for the production of photomontages it is noted that GLVIA3 states at para 4.42 *‘Assumptions about plant growth or other changes over time should be realistic and not over optimistic. The design concept for the mitigation has to have a good chance of being achieved in practice to be taken seriously by the competent authority.’*
- 6.8.7 The potential growth rates of the elements set out above and likely to form the proposed hedgerow mix, are influenced by several factors including soils, climate, weather, maintenance and management. At this Site the soils comprise of largely arable land generally cultivated for a range of annual crops. The Site is located in the central portion of the country and is not particularly exposed nor is it subject to salt winds. Observed extension growth of the existing hedgerows within the field appears strong and for many of the species noted above is in excess of 600mm per year.
- 6.8.8 In terms of specification of the planting works and the subsequent maintenance of the planting this is set out in **Appendix 7.14 - Outline Landscape and Ecological Management Plan [EN010163/APP/6.3.7]**, which requires high standards of site

preparation and plant care during establishment. Plants will be protected from predators by shelters and the bases mulched to retain moisture and provide additional nutrients. Based on collated and extrapolated growth rates set out from a combination of sources including Trees for Town and Country by B. Colvin and S.R Badmin¹⁶ (Originally compiled by the Association for Planning and Regional Reconstruction) and heights at 25yrs provided by supplier Hillier Trees, it is anticipated that on average the plant material comprising the proposed hedgerows could achieve approximately 500mm per year. This average growth rate, across the locally occurring species and those likely to be selected for the resultant planting mixes, has been used for the purposes of this assessment and supporting visual material.

- 6.8.9 It is acknowledged that the effectiveness of vegetation would improve over time (both in terms of integrating the Proposed Development into the surrounding landscape and in providing visual screening) and this has been considered in the judgements set out. Consideration to local landscape character and vernacular has also been considered, to avoid creating landscape features which are not already apparent in the locality.

6.9 Residual Effects

- 6.9.1 The assessment of effects set out previously in Section 6.7 is based on the assumption that the mitigation measures set out in Section 6.8 are embedded mitigation which would be implemented as part of the Proposed Development. It is therefore not considered appropriate or necessary to identify the effects which would occur without this mitigation in place.
- 6.9.2 As the mitigation measures set out in Section 6.8 have already been considered in the assessment of effects set out in Section 6.7, no further separate assessment of residual effects is required and the residual effects are as reported in Section 6.7 and summarised in Table 6.7.

6.10 Cumulative and In-combination Effects

- 6.10.1 **Chapter 2 EIA and Public Consultation [EN010163/APP/6.2.6]** sets the overarching approach to the identification of relevant sites for consideration in the cumulative assessment. This includes discussion of the four-stage process to

¹⁶ Trees for Town and Country, B. Colvin and S.R Badmin

- assessing cumulative effects beginning with the identification of a long list of ‘other development’ and its subsequent refinement down to a short list. This short list of other existing, approved or proposed cumulative sites is set out in Table 2.9, with the sites also illustrated on **Figure 3.3- Cumulative Schemes Plan [EN010163/APP/6.4.3]**.
- 6.10.2 The Zone of Influence (Zoi) for the consideration of landscape and visual effects has been determined to be a 10km radius from the Proposed Development. This is considered to represent the maximum distance from the Proposed Development where any of the other projects would have the potential to result in significant effects with the Proposed Development. It has been determined based on professional judgement, alongside an understanding of the nature and characteristics of the landscape surrounding the Proposed Development and with regard to the limit theoretical visibility of the Proposed Development within the wider landscape, as illustrated on **Figure 6.6a Screened Zone of Theoretical Visibility (SZTV) and viewpoint (VP) Locations (10km radius) [EN010163/APP/6.4.6]**.
- 6.10.3 The short list of other existing, approved or proposed cumulative sites set out in **Table 2.9** listed 17no. sites. Of these, there are 13no. which lie within the 10km LVIA Zoi, as set out in Table 6.6 below:

Table 6.6 - Shortlisted Cumulative Schemes within the LVIA 10km Zoi

No.	Name of Project	NSIP?	Reference Number	Approximate Distance and Direction from the Site
Tier 1 Sites				
1	Cottam Solar Project Status - consented	Yes	EN010133	3km to the south
2	Gate Burton Energy Park Status - consented	Yes	EN010131	300m to the east

No.	Name of Project	NSIP?	Reference Number	Approximate Distance and Direction from the Site
3	Tillbridge Solar Project Status - submitted	Yes	EN010142	3km to the south
4	West Burton C Power Station Status - consented	Yes	EN010088	Adjacent to the north-east of the Site
5	West Burton Solar Project Status - consented	Yes	EN010132	The cable corridor for this scheme traverses the Site.
7	Bumblebee Solar Farm Status - consented	No	Bassetlaw District Council (BDC) ref: 22/00358/FUL Associated BDC planning application reference: 24/01358/FUL	2.5km to the north
8	Wood Lane Solar Farm Status - consented	No	BDC ref: 20/00117/FUL	Adjacent to the west
9	West Burton C Battery Storage Status - consented	No	BDC ref: 22/01713/FUL	Adjacent to the north

No.	Name of Project	NSIP?	Reference Number	Approximate Distance and Direction from the Site
10	Site clearance (demolition) of West Burton A Power Station Status - consented	No	BDC ref: 23/00485/DEM	Adjacent to the north
11	Sturton le Steeple Quarry Status - consented/Access track under construction	No	Nottinghamshire County Council (NCC) extant ref: V/4386	Adjacent to the south-east
12	Bole Ings Ash Disposal Site Status - operational/under construction	No	NCC ref: F/3581, and V/4079 (variation of conditions 11, 13, and 53 of planning permission 1/18/00234/CDM)	2km to the north of the Site
Tier 2 Sites				
14	New 400 kilovolt (kV) electricity transmission connection - North Humber to High Marnham Status - proposed	Yes	EN020034	Overhead lines are currently proposed to traverse the western portion of the Site.
16	One Earth Solar Farm	Yes	EN010159	8km to the south

No.	Name of Project	NSIP?	Reference Number	Approximate Distance and Direction from the Site
	Status - proposed			

6.10.4 The following section sets out a consideration of potential cumulative effects.

6.10.5 The nearest cumulative energy project to the Proposed Development is the consented Wood Lane Solar Farm at Land North West And South Of Field Farm. The Site boundary has specifically excluded the land covered by this adjacent project, which if constructed alongside the Proposed Development would appear to form part of the same overall development proposal. The Wood Lane Solar Farm development is located in a part of the landscape that results in only limited landscape and visual effects arising from the scheme. This therefore also serves to limit the potential any cumulative effects to arise alongside the Proposed Development.

6.10.6 The sand and gravel quarry at Land to North and East of Sturton le Steeple is also located adjacent to the Proposed Development and again the Site boundary has specifically excluded the land covered by this adjacent project. At the outset of the project, it was acknowledged that the landscape mitigation and enhancement proposals included as part of the Proposed Development would need to be complementary to those included as part of the sand and gravel quarry. This has been reflected on **Figure 6.9 Landscape and Ecological Mitigation Strategy [EN010163/APP/6.4.6]**. In general terms however, there is relatively limited potential for visual effects from the sand and gravel quarry, due to its offset from visual receptors and the relatively low profile of the landscape. This would therefore limit the potential for any cumulative effects with the Proposed Development. In terms of landscape character, there would be a greater change as a result of the sand and gravel quarry, albeit one which is localised and limited to the temporary duration of the quarrying activities, after which the Site would be subject to restoration.

- 6.10.7 The proposed West Burton Solar Project is primarily located over 3km from the Proposed Development, but with a cable route which runs through the Site of the Proposed Development. At the outset of the project, it was acknowledged that there may be the need to accommodate this cable route, should the West Burton Solar Project be consented and now that the project has been consented this is something which has been considered as part of the detailed layout design. In landscape and visual terms however, any impacts associated with this cable route would be short term and would end once the cable had been buried and the land returned to its existing use. The main part of the West Burton Solar Project extends to over 10km away from the Proposed Development, on the opposite side of the river Trent, in an area where there is very little theoretical visibility of the Proposed Development. Any potential for cumulative visual effects is therefore limited.

Cumulative Effects on Landscape Character

- 6.10.8 It is acknowledged that wherever more than one energy development is visible at any given location in the landscape, there will be a greater overall or cumulative effect on landscape character than if just one project was visible in the landscape.
- 6.10.9 It is also noted however that in any given landscape where energy development is already present, the additional effect on landscape character of introducing further energy developments may not be as significant as the initial introduction of the first project. Furthermore, in general, the greater the number of energy developments in the baseline landscape the less significant the addition of further projects may be in landscape character terms as the landscape will be more heavily characterised by energy development in the baseline situation.
- 6.10.10 It has been assessed that there are likely to be some limited, localised significant effects on landscape character as a result of the Proposed Development. The purpose of this section of the cumulative assessment is therefore to identify whether there would be any change to the assessments of significance previously set out in relation to the Proposed Development, should the other developments which are not already operational, also form part of the landscape.
- 6.10.11 In this case the potential for significant cumulative effects on landscape character is limited. Were the other consented and proposed energy schemes to come forward and also form part of the landscape, the wider landscape would already be characterised to some degree by the presence of energy development. This would

- not however change the character effects associated with the Proposed Development.
- 6.10.12 Further mitigation has been included as part of the final layout proposals, which includes new vegetation planting to help minimise impacts. However, no significant cumulative landscape effects would arise. Further assessment is set out below.
- 6.10.13 With regard to the National Character Areas, the majority of the cumulative schemes listed in Table 6.6 would also lie within NCA 48: Trent and Belvoir Vales. However, many of these are directly associated with the existing development at the former West Burton Power Station site, where the baseline character is already notably influenced by built development. These include the West Burton C Power Station, West Burton C Battery Storage and Bole Ings Ash Disposal Site, along with the Site clearance (demolition) of West Burton A Power Station itself. These schemes would therefore have limited potential to give rise to further cumulative effects to landscape character. Similarly, the proposed new 400 kilovolt (kV) electricity transmission connection - North Humber to High Marnham would also be located in a part of NCA 48 which is already characterised in part by the presence of several existing 400 kV electricity transmission lines, which reduces its potential to give rise to notable new character effects, albeit there would be some localised effects on landscape character in immediate proximity of the route.
- 6.10.14 The consented solar energy developments (Cottam Solar Project, Gate Burton Energy Park, Tillbridge Solar Project, West Burton Solar Project, Bumblebee Solar Farm and Wood Lane Solar Farm) would all give rise to some localised effects on landscape character, as would the additional proposed solar energy developments (Tillbridge Solar Project and One Earth Solar Farm). Mitigation associated with each of the projects would however serve to limit the geographical extent of any impacts.
- 6.10.15 In the context of the scale and existing character of NCA 48, the effect of the introduction of the Proposed Development alongside the other cumulative schemes, would be to give rise to similar localised effects to landscape character, consolidating the existing effects of those schemes. NCA 48 would be further characterised by the presence of solar energy development to a limited additional degree, but there would be no change to the assessment of significant effects set out for the Proposed Development in Section 6.6, with no greater than a negligible additional cumulative effect. The overall combined effect of each of the proposals on NCA 48 is addressed separately subsequently.

- 6.10.16 The Proposed Development would cause notable, but highly localised effects upon the 'Mid Notts Farmlands' and 'Trent Washlands' Character Areas due to the extent and size of the Proposed Development. The 'Mid Notts Farmlands' would also contain each of the other cumulative projects located at the former West Burton Power Station site, plus the proposed new 400 kilovolt (kV) electricity transmission connection - North Humber to High Marnham, Bumblebee Solar Farm, Wood Lane Solar Farm and part of the One Earth Solar Farm. If these other cumulative schemes, were also located in the landscape of the 'Mid Notts Farmlands', the Proposed Development would serve to consolidate the existing localised effects, but there would be no change the assessment of effects set out for the Proposed Development in Section 6.6. The overall combined effect of each of the proposals on the 'Mid Notts Farmlands' is addressed separately subsequently. The 'Trent Washlands' also contains the Bole Ings Ash Disposal Site and would also include the Sturton le Steeple Quarry and the grid connection elements of the Cottam, Gate Burton and Tillbridge projects. If these other cumulative schemes, were also located in the landscape of the 'Trent Washlands', the Proposed Development would serve to consolidate the existing localised effects, but there would be no change to the assessment of significant effects set out for the Proposed Development in Section 6.6, with no greater than a negligible additional cumulative effect. The overall combined effect of each of the proposals on the 'Trent Washlands' is addressed separately subsequently.

Cumulative Effects on Views and Visual Amenity

- 6.10.17 As with cumulative landscape character effects, it is acknowledged that the addition of the Proposed Development to the baseline has the potential to result in an increase in effects, when viewed in combination with other developments forming part of the visual baseline.
- 6.10.18 It is also noted however that in any given view where energy development is already present, the additional effect on visual amenity of introducing further development may not have as great an effect as the initial introduction of the first development. Furthermore, in general the greater the extent of development in the baseline view, the less significant the addition of further development may be. It is also recognised however that a slight additional effect on top of an existing effect, which at present is not quite significant, could in theory tip the balance such that the overall effect is deemed to be significant.

- 6.10.19 Again, generally speaking, such additional cumulative effects would arise where a visual receptor would now lie between a cumulative development in one direction and the Proposed Development in a different direction, such that the visibility of development as a result of the addition of the Proposed Development would become notable in multiple, usually directly opposite, directions.
- 6.10.20 An ‘in combination’ cumulative visual effect is the term used in LVIA to refer to the situation where a viewer is able to see one or more further developments, in addition to the Proposed Development, whilst standing in the one location. These effects are either ‘simultaneous’, where the viewer can see the additional development in the same angle of view, or ‘successive’, where the viewer can see the additional development in a different angle of view by turning their head.
- 6.10.21 A ‘sequential’ cumulative visual effect is the term used to refer to the situation where a viewer is able to see one or more further developments in addition to the Proposed Development, whilst travelling along a linear route. This could be either on foot, whilst walking on a footpath, or by bicycle or car along the public highway.
- 6.10.22 As with effects on landscape character, the potential for cumulative visual effects is low due to the limited visibility of the Proposed Development from much of the wider landscape. There may be some in combination and sequential views with one or other of the other developments, but such instances would be rare and generally limited to glimpses of one or other of the projects.
- 6.10.23 Further mitigation has been included as part of the final layout proposals, which includes new vegetation planting to help minimise impacts. However, no significant cumulative visual effects would arise. Further assessment is set out below.
- 6.10.24 There may be some potential for views of the cumulative schemes at the former West Burton Power Station site (West Burton C Power Station, West Burton C Battery Storage and Bole Ings Ash Disposal Site, along with the Site clearance (demolition) of West Burton A Power Station) itself for receptors in the local area around the former West Burton Power Station site, such as the local PRoW network. However, views towards the former West Burton Power Station site are already notably influenced by built development such that there would be no potential for significant cumulative effects.
- 6.10.25 The proposed new 400 kV electricity transmission connection - North Humber to High Marnham would be located in a part of landscape which is already

characterised in part by the presence of several existing 400 kV electricity transmission lines, so any views towards the new route would in many cases already include existing 400 kV electricity transmission lines. However, it is noted that for visual receptors in close proximity to the new transmission connection, there may be potential for views of both the Proposed Development and the new transmission connection in relatively close proximity. The final proposals for the new transmission connection are not yet confirmed, but there would be the potential for there to be some localised non-significant moderate cumulative effects on views where both the transmission connection and the Proposed Development were visible in very close proximity. However, such locations would be likely to be highly localised and dependant on when the new transmission connection were to be constructed the mitigation planting associated with the Proposed Development may serve to restrict the potential for these effects by virtue of the very limited visibility of the Proposed Development that would occur by Year 15.

- 6.10.26 The consented solar energy developments (Cottam Solar Project, Gate Burton Energy Park, Tillbridge Solar Project, West Burton Solar Project, Bumblebee Solar Farm and Wood Lane Solar Farm) would all give rise to some localised effects on visual amenity, as would the additional proposed solar energy developments (Tillbridge Solar Project and One Earth Solar Farm). Mitigation associated with each of the projects would however serve to limit the geographical extent of any impacts and with regard to the limited nature of any visual effects of the Proposed Development and the distance between the Proposed Development and the cumulative projects, it is not considered there would be potential for any change to the assessment of visual effects set out in Section 6.7, with no greater than a negligible additional cumulative effect.
- 6.10.27 Wood Lane Solar Farm may be visible alongside the Proposed Development from a short section of the Trent Valley Way, but mitigation planting associated with each of the projects would however serve to limit the potential for additional effects, with no further effects arising than those set out in Section 6.7. Footpath FP5 (South Wheatley) passes through the Wood Lane Solar Farm, but were that scheme to also be located in the landscape then the Proposed Development, which would lie further away, would not give rise to any further visual effects beyond those which would already arise from the Wood Lane project.

- 6.10.28 The Sturton le Steeple Quarry would largely be imperceptible from much of the surrounding landscape, due to its separation from visual receptors and the nature of the workings beneath ground level. There may be some potential for views of both the Proposed Development and the vehicle movements associated with the quarry, but these would largely be seen along the main quarry access in the immediate context of the existing built development at the former West Burton Power Station site. It is not considered that the quarry would result in any change to the assessment of visual effects set out in Section 6.7, with no greater than a negligible additional cumulative effect.

Totality of the Combined Effect of All Developments

- 6.10.29 Consideration has also been given to the overall totality of the effect, when the Proposed Development is considered alongside the other operational, consented, and proposed developments. Collectively, the developments as a whole have the potential to give rise to relatively notable effects on landscape character, and to a lesser extent on visual amenity. These effects are however mitigated to some extent by the vegetation planting proposed as part of the various developments.
- 6.10.30 With regard to the overall totality of the effect on landscape character, the majority of the cumulative schemes lie within the same NCA 48: Trent and Belvoir Vales as the Proposed Development. Mitigation associated with each of the projects would serve to limit the geographical extent of any impacts, however collectively there would be a greater impact on the landscape character of NCA 48: Trent and Belvoir Vales than associated with the Proposed Development in isolation, but of which the Proposed Development would form only a minor element. The NCA would become characterised in part by the presence of solar energy developments, but this would only serve to continue the existing presence of energy development in the landscape of NCA 48, resulting previously from the former coal fired power stations. There would be a medium magnitude of impact, to the medium sensitivity character area, resulting in a **moderate, non-significant effect**. This same overall combined impact to landscape character would arise to the 'Mid Notts Farmlands' and 'Trent Washlands' Character Areas, again continuing the presence of energy development in these areas, but resulting in no greater than a **moderate, non-significant effect**.

6.11 Summary

Introduction

6.11.1 This chapter has sought to determine the landscape and visual effects of the Proposed Development and whether such effects would be significant or not. The assessment has been undertaken by Chartered Landscape Architects at Pegasus Group who are experienced in the assessment of landscape and visual effects of energy developments and are familiar with the local landscape.

6.11.2 It is acknowledged from the outset that, in common with almost all commercial energy development proposals, some landscape and visual effects would occur as a result of the Proposed Development.

Baseline Conditions

6.11.3 The Site broadly lies between the settlements of Retford and Gainsborough, occupying multiple agricultural fields within a relatively flat agricultural landscape primarily in arable use. The Site also includes part of the existing West Burton Power Station site covering the area around the existing 400kV substation.

6.11.4 A number of settlements or clusters of properties are located nearby beyond the Site boundaries, including Sturton le Steeple, North Leverton with Habbleshthorpe and Fenton. Individual properties are also located close to the boundaries of the Site and within the wider surrounding area.

6.11.5 A network of roads is located both within the Site and adjacent to the boundary, the Sheffield – Lincoln railway line passes through the western section of the Site and The River Trent lies adjacent to the eastern boundary of the Site.

6.11.6 A series of Public Rights of Way (PRoW) are located within the Site, including the long-distance path known as the Trent Valley Way. There are also a number of overhead electricity lines which pass through the Site.

Likely Significant Effects

6.11.7 With regard to effects on landscape features, the construction of the Proposed Development would result in notable short-term impacts from the construction activity, including the movement of vehicles and plant, temporary compounds and the construction of the Proposed Development itself. However, with regard to the trees, woodland and hedgerows with the Site itself, all vegetation would be retained bar limited removals of hedgerows to facilitate access tracks, with existing gaps

- utilised for access where possible. This therefore would not result in any significant adverse effects on the most sensitive landscape features at the Site.
- 6.11.8 Once construction is completed there would be no further adverse effects on the landscape features of the Site. Indeed, the Proposed Development includes for notable planting of new trees, woodland and hedgerows, as well as species rich planting across the majority of the Site.
- 6.11.9 With regard to effects on landscape character, the construction phase would cause notable, but temporary effects upon the Landscape Character of the Site, due to the extent and size of the Proposed Development. Such effects would be significant given the duration and nature of the of the construction work.
- 6.11.10 The operational phase would also cause notable effects upon the Landscape Character of the Site, due to the extent and size of the Proposed Development, along with highly localised effects upon the ‘Mid Notts Farmlands’ and ‘Trent Washlands’ Character Areas. Such effects would be significant.
- 6.11.11 In terms of visual receptors, there would be significant visual effects on a small number of the properties in the village of Sturton le Steeple, the small cluster of properties at Fenton and a small number of other individual properties which lie outside of the closest settlements. This applies to those properties which have clear, open views across part of the Site, which are not blocked by other properties or vegetation. For the majority of residential properties however the magnitude of impact would be no greater than low, resulting in moderate to minor effects.
- 6.11.12 At the outset of the project, it was determined that an appropriate offset would be required from the Trent Valley Way which passes through the Site, and this has been included as part of the final layout proposals. Nonetheless, it is acknowledged that there would be significant visual effects on users of small sections of the route, plus several other Public Rights of Way which pass through or close to the Site. This would apply to those sections which have clear, open views across part of the Site, which are not blocked by existing hedgerows or other vegetation. For the majority of the routes however the magnitude of impact would be no greater than low, resulting in moderate to minor effects.
- 6.11.13 Regarding road users, there would be no significant effects on users of any of the A or B Roads within the study area, however for a number of minor roads which pass within close proximity of the Site, there would be significant visual effects on users

of some sections. This would apply to those sections which have clear, open views across part of the Site, which are not blocked by existing hedgerows or other vegetation. Mitigation has been included as part of the final layout proposals, which includes further offsetting of the Proposed Development from these roads and new vegetation planting to help minimise impacts.

Mitigation and Enhancement

- 6.11.14 The primary mitigation adopted in relation to landscape and visual matters is that which has been embedded within the design of the Proposed Development and comprises the consideration given to avoiding and minimising landscape and visual effects during the evolution of the Proposed Development layout. This is sometimes referred to as ‘mitigation by design’. In addition, a series of landscape mitigation and enhancement measures are proposed to be included as part of the Proposed Development, and these are illustrated on **Figure 6.9 Landscape and Ecological Mitigation Strategy [EN010163/APP/6.4.6]**. These include planting of new hedgerows, trees, woodland and species rich grassland.

Cumulative and In Combination Effects

- 6.11.15 A consideration of potential cumulative effects has been undertaken. The Zone of Influence (ZoI) for the consideration of landscape and visual effects has been determined to be a 10km radius from the Proposed Development. This is considered to represent the maximum distance from the Proposed Development where any of the other projects would have the potential to result in significant effects with the Proposed Development. No significant cumulative effects would arise.

Conclusion

- 6.11.16 Table 6.7 summarises the findings of the landscape and visual impact assessment. Some significant adverse effects are identified (to hedgerows during construction, the land cover and character of the Site itself, and to some of the PRow and Roads which pass through the Site), but these are highly localised and limited in nature, with many of the effects reduced by Year 15 following implementation of the landscape mitigation planting. Indeed, this planting would result in significant beneficial effects in terms of the hedgerow network at the site.

Table 6.7 Summary of Assessment of Landscape and Visual Effects

Receptor	Sensitivity	Magnitude	Level of Effect	Significant yes/no
Landscape Features				
<i>Vegetation and ground cover</i>				
Woodland and Individual Trees	High	Construction: None	No effect	No
		Operation Yr1: Low (beneficial)	Minor (beneficial)	No
		Operation Yr15: Medium (beneficial)	Moderate (beneficial)	No
		Decommissioning: None	No effect	No
Hedgerows	High	Construction: Medium (adverse)	Major – moderate (adverse)	Yes
		Operation Yr1: Low (beneficial)	Minor (beneficial)	No
		Operation Yr15: Medium (beneficial)	Moderate (beneficial)	Yes
		Decommissioning: None	No effect	No
Ground Cover	Medium	Construction: High	Major – moderate (adverse)	Yes
		Operation Yr1: Low (beneficial)	Minor (beneficial)	No
		Operation Yr15: Medium (beneficial)	Moderate (beneficial)	No
		Decommissioning:	Moderate-minor	No

Receptor	Sensitivity	Magnitude	Level of Effect	Significant yes/no
		Low		
Topography	Medium	Construction: Very low	Minor	No
		Operation Yr1: none	No effect	No
		Operation Yr15: none	No effect	No
		Decommissioning: Negligible	Negligible	No
Drainage and Water Features	Medium	Negligible (All Phases)	Negligible	No
Landscape Character				
National Character Area (NCA) 48: Trent and Belvoir Vales	Medium	Low (All Phases)	Moderate - Minor	No
‘Mid Notts Farmlands’ and ‘Trent Washlands’ Character Areas	Medium	Construction and Operation Yr1: Low to Medium	Moderate	No
		Operation Yr15 and Decommissioning: Low	Moderate/Minor	No
Landscape Character of the Site	Medium	Construction and Operation Yr1: High	Major/Moderate	Yes
		Operation Yr15 and Decommissioning: Medium-High	Moderate	Yes
Landscape Designations				
West Lindsey District Area of Great Landscape Value	High	Very Low (All Phases)	Minor	No

Receptor	Sensitivity	Magnitude	Level of Effect	Significant yes/no
Visual Receptors				
Residential Receptors	High	None to Low – Medium (<i>All Phases</i>)	None to Moderate	No
Users of publicly accessible bridleways and footpaths	High	<i>Construction and Operation Yr1:</i> None to High	None to Major	Yes
		<i>Operation Yr15 and Decommissioning:</i> None to Medium-low	None to Moderate-minor	No
Users of the transport network	Medium	<i>Construction and Operation Yr1:</i> None to High	None to Major/Moderate	Yes
		<i>Operation Yr15 and Decommissioning:</i> None to Medium-low	None to Moderate-minor	No