

Great North Road Solar and Biodiversity Park

Environmental Statement

Volume 2 – Chapters

Chapter 7 – Landscape and Visual Impact Assessment

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7.1 INTRODUCTION

7.1.1 Background

- 1 This chapter presents the findings of the assessment of the likely significant effects arising from the construction, operation and decommissioning of the Development on landscape and visual receptors.
- 2 This chapter details the methodology followed for the assessment, summarises the regulatory and policy framework, and describes the existing environment in the area surrounding the Development. Following this, the design, potential mitigation and potential effects without mitigation of the Development are discussed, along with the limitations of the assessment.
- 3 Landscape and visual aspects considered within the Chapter for the Development include:
 - Landscape fabric;
 - Landscape character;
 - Visual receptors – i.e. people in the public domain; and
 - Designated landscapes.
- 4 In considering effects on landscape fabric, this chapter considers the removal or addition of elements such as vegetation in relation to landscape change. The assessment of effects of the Development on ecological receptors is considered in Chapter 8, Ecology and Biodiversity [EN010162/APP/6.2.8].
- 5 This chapter considers heritage assets in relation to their role in the landscape and its perceived value (for example, Conservation Areas are treated as areas where the character and views are valued). The assessment of effects of the Development on heritage receptors is considered in Chapter 11, Cultural Heritage and Archaeology [EN010162/APP/6.2.11].
- 6 This chapter is supported by the following figures in Volume 3 of this ES:
 - 7.1 ZTV Study – Including Screening [EN010162/APP/6.3.7.1];
 - 7.2 Topography and Landcover [EN010162/APP/6.3.7.2];
 - 7.3 Landscape Character [EN010162/APP/6.3.7.3];
 - 7.4 Landscape Character and Visibility [EN010162/APP/6.3.7.4];
 - 7.5 Visual Receptors – Overview [EN010162/APP/6.3.7.5];
 - 7.6 Visual Receptors – Before Mitigation [EN010162/APP/6.3.7.6];
 - 7.7 Visual Receptors – After Mitigation [EN010162/APP/6.3.7.7];
 - 7.8 Cumulative Effects with One Earth Solar Farm [EN010162/APP/6.3.7.8];
 - 7.9 Cumulative Effects with Foxholes Solar Farm [EN010162/APP/6.3.7.9];
 - 7.10 Cumulative Effects with Kelham Solar Farm and SSE BESS [EN010162/APP/6.3.7.10]; and
 - 7.11 Visualisations, identified by viewpoint numbers 1-55 [EN010162/APP/6.3.7.11].

- 7 The following Technical Appendices (TA), in Volume 4 of this ES, also support this chapter:
- TA A7.1 Landscape and Visual Consultation [EN010162/APP/6.4.7.1];
 - TA A7.2 Landscape and Visual Methodology [EN010162/APP/6.4.7.2];
 - TA A7.3 Landscape Sensitivity [EN010162/APP/6.4.7.3];
 - TA A7.4 Illustrative Views [EN010162/APP/6.4.7.4];
 - TA A7.5 Landscape and Visual – Non-Significant Effects [EN010162/APP/6.4.7.5]; and
 - TA A7.6 Residential Visual Amenity Assessment [EN010162/APP/6.4.7.6].
- 8 TA A7.6 provides an initial assessment of potential effects on residential visual amenity, i.e. people within private properties; which is a separate (though related) planning matter (see section 7.3.10).

7.1.2 Glossary and Terminology

- 9 A glossary of terms is provided in Chapter 20 [EN010162/APP/6.2.20], with terms used in describing the Development set out in detail within Chapter 5 [EN010162/APP/6.2.5]. ‘Short-hand’ terms used in describing the Development in this chapter as used as follows:
- Solar areas – Work No. 1;
 - Intermediate substations – Work No. 4;
 - BESS – Work No. 5a;
 - 400 kV Substation – Work No. 5b;
 - Substations – both the Intermediate and 400 kV substations;
 - Ecological mitigation – Work No. 3;
 - Proposed woodland – included in some areas of Work No. 3; and
 - Development – visible, above ground infrastructure comprising the components listed above.
- 10 Key terms used within the assessment are described in Section 7.3 and TA A7.2 which set out the methodology. A glossary is provided within TA A7.1 and Chapter 20, Glossary [EN010162/APP/6.2.20].

7.1.3 The Development Site and Development

- 11 The Development Site is defined by the Order Limits. Figure 1.1, Development Location [EN010162/APP/6.3.1.1], places the Order Limits within the local context. The Development would be within an area bound by the Order Limits. The Order Limits are to the west of the A1, north of the A617, east of Eakring, and south of Egmonton, to the north and north-west of Staythorpe.
- 12 The Development is described by ES Chapter 5, Development Description, [EN010162/APP/6.2.5], and briefly summarised here. The Development essentially consists of discrete land parcels proposed to be occupied by solar PV panels and associated infrastructure (Work no. 1), connected by cable route areas (Work no. 2). Up to 4 intermediate substations (Work no. 4) will be spaced around the solar areas, and a Battery Energy Storage

System (BESS; Work no. 5a) and 400 kV Compound (Work no. 5b) will collate the electrical energy and step up the voltage before cabling it to the National Grid Staythorpe Substation (Work no. 6), likely via the Consented Staythorpe BESS (Work no. 7). Road works (Work no. 8; access) will be undertaken, principally to create passing places and create or upgrade access points. Other areas within the Order Limits are identified for mitigation/enhancement (Work no. 3). The Work Areas are shown on ES Figure 5.1 [EN010162/APP/6.3.5.1] and a summary of mitigation/enhancement measures is shown on ES Figure 5.2 [EN010162/APP/6.3.5.2].

- 13 The wider area within and surrounding the Order Limits is generally composed of agricultural land, interspersed by occasional woodlands. Surrounding villages and hamlets are connected by rural roads and public rights of way. Smaller fields and tree cover are more common close to the villages and along water courses, with larger and more open fields set further away. The total area within the Order Limits is approximately 1,765 hectares (ha), the majority of which is currently used for arable crops or is otherwise down to pasture.

7.1.4 Worst Case Design Scenarios

- 14 The assessment reported in this chapter assumes realistic worst-case scenarios from the range allowed by Chapter 5, Development Description, [EN010162/APP/6.2.5], as follows:
 - It is assumed that the development specified for Work No.s 1 (Solar PV), 4 (Intermediate Substations), 5a (BESS), 5b (400 kV Compound), 6 (National Grid Staythorpe Substation) and 7 (Consented Staythorpe BESS Connection) fully occupy, insofar as they are able to given the constraints set out in Table 5.1 of Chapter 5, the area and heights covered by those Work No.s;
 - It is assumed that Work no. 2 (cable routes) use the maximum expected 30 m-wide corridor including a 12 m-wide trench for construction activity and that this area could be anywhere within the Work no. 2 area (which is generally 60 m wide); and
 - It is assumed that the activities specified for Work No. 8 (Access) include road widening and vegetation clearance only insofar as required to meet the traffic management aims.
- 15 In advance of decommissioning, a final Decommissioning and Restoration Plan (DRP) will be prepared and submitted to Newark and Sherwood District Council for approval. The final DRP will accord with the Outline DRP provided in TA A5.6 [EN010162/APP/6.4.5.6]. This is secured by DCO Requirement. This sets out that the solar PV modules and associated infrastructure in Work no. 1 (Solar PV) and the batteries and associated infrastructure in Work no. 5a (BESS) will be decommissioned and that land restored for ongoing agricultural uses, but that a decision on whether to decommission/restore other components, including the substations, will be made at that time.

- 16 Post-decommissioning, the following is assumed:
- Solar and BESS fields would revert to farming use;
 - Substations would remain and the assessment assumes that they would as a worst-case scenario;
 - Permissive rights of way created as part of the Development would be removed;
 - Diversions to PRoW created as part of the Development would remain in place; and
 - Woodland and hedgerows (except those created to form a second hedge alongside a permissive route) will be retained, as will the community orchard, but in other areas the land would be restored to agriculture.

7.1.5 Study Area

- 17 A 2 km study area from solar areas, Intermediate substations, 400 kV substation and BESS was agreed with Newark and Sherwood District Council (NSDC) for this assessment.
- 18 The study area was defined as 5 km for the Preliminary Environmental Information Report (PEIR) assessment, taking account of scoping responses from consultees and the scoping opinion provided as set out within Table 7.1 and TA A7.1 [EN010162/APP/6.4.7.1]. Only one consultee (Carlton on Trent Parish Council) requested a larger study area (of 10 km). The PEIR stage assessment indicated that:
- There are no receptors between 5-10 km that are more sensitive (e.g., nationally designated landscapes) than the receptors within 5 km;
 - There would be no significant effects beyond approximately 0.7 km; and
 - For all receptors, effects would reduce to Negligible beyond 1.5 km.

7.1.6 Assumptions and Limitations

- 19 The design of the Development will be detailed following issue of the DCO, once the specific component specifications are known. At this, application, stage, the design is specified in terms of the Work no.s and parameters set out in Chapter 5, Development Description [EN010162/APP/6.2.5] and the assessment has been undertaken based on these design parameters.
- 20 No visits have been made to private property (including residential property) except incidentally where a homeowner encountered the assessment team on site and specifically requested a visit. The Residential Visual Amenity Assessment provided in TA A7.6 [EN010162/APP/6.4.7.6] includes an assessment undertaken from the nearest public locations .
- 21 Some Public Rights of Way were inaccessible during site visits. This is noted in the assessment where it is relevant. Some discrepancies were noted between routes on the ground, the Definitive Map and Ordnance Survey Maps. Assessments made based on what was seen on the ground.

7.1.7 Assessment Scenarios and Potential Effects

- 22 Effects arising from the Development are considered at the following key stages. The nature of the potential effects relevant to this assessment are described for each stage:

7.1.7.1 Construction

- 23 The construction of the project would take place over approximately 2 years as set out in Table 5.10 of Chapter 5, Development Description [EN010162/APP/6.2.5]. It would involve vehicle movements to and from the areas where construction is occurring and construction activity, people and vehicles within those areas, along with views of part-completed Development. There would also be one temporary diversions of a public right of way which passes through the Order Limits. Effects during construction on landscape fabric would arise from:

- Removal of short sections of hedgerow to create access tracks and cable routes;
- Planting of new trees and hedgerows and the creation of new habitat areas;
- Construction of temporary compounds, permanent substations and the BESS;
- Excavation and cable laying; and
- The installation of fencing, tracks, solar arrays and other infrastructure elements within fenced areas.

- 24 Effects during construction on landscape character would arise from:

- Short-term change of farmland to construction site; and
- Changes to landscape fabric as described above.

- 25 Effects during construction on visual receptors would arise from:

- Short-term movement of vehicles and plant within and travelling to and from the Order Limits to deliver and install the Development;
- Construction activity within the solar, substation and BESS areas and along cable routes; and
- Increasing coverage of the land within the Order Limits with solar panels and other components of the Development, with similar effects to the operational stage.

7.1.7.2 Operation

- 26 Effects during operation on landscape fabric would arise from:

- The long-term presence of the solar farm within fenced areas;
- Changes to existing landscape management, as set out in the Landscape and Ecological Management Plan (LEMP; an outline of which is provided in TA A5.1 [EN010162/APP/6.4.5.1]); and
- Growth of new planting.

- 27 Effects during operation on landscape character would arise from:

- The long-term change of farmland to solar farm; and

- Changes to vegetation cover and accessibility.
- 28 Effects during operation on visual receptors would arise from changes to views towards the Development to include the fencing, tracks, solar PV modules, substations, BESS and other infrastructure elements within fenced areas, both from static locations and when moving along routes (both existing and proposed) through the landscape.
- 29 No effects would arise during operation on designated landscapes due to changes to the special qualities as a result of visibility of the Development, as there are no designated landscapes in the LVIA study area.

7.1.7.3 Decommissioning

- 30 Effects during decommissioning would be short-term and similar to those arising during construction except in reverse in terms of the panel areas being reinstated to farmland.

7.1.8 Supporting Information

- 31 Supporting appendices (TAs A7.1 – A7.6) [EN010162/APP/6.4.7.1-6], figures (Figures 7.1 – 7.10) [EN010162/APP/6.3.7.1-10] and visualisations (Figure 7.11) [EN010162/APP/6.3.7.1] have been prepared. These are important to the assessment and should be read alongside this chapter.

7.2 CONSULTATION

7.2.1 Stakeholder Consultation

- 32 The EIA Scoping Report was submitted to PINS in November 2023, with a Scoping Opinion received in December 2023 (this is set out in more detail in Chapter 2, EIA, [EN010162/APP/6.2.2] and Chapter 3, Consultation [EN010162/APP/6.2.3]). Subsequently, further consultation (including statutory consultation) was undertaken following publication of the PEIR.
- 33 Table 7.1 includes a summary of how this chapter of the ES has responded to key points within the EIA Scoping Opinion comments and further consultation following publication of the PEIR. TA A7.1 [EN010162/APP/6.4.7.1] provides a more detailed review of comments and responses, including how this chapter has addressed the directions provide in the scoping opinion.

Table 7.1: Summary of stakeholder consultation

Issue	How this is addressed
LVIA Study Area	A 5 km study area was used for the PEIR stage assessment. The PEIR stage assessment identified that effects would reduce to Negligible beyond 1.5 km, and a 2 km study area was agreed with NSDC for this assessment, as set out in Section 7.1.4.

Issue	How this is addressed
National Character Areas should be assessed.	These are considered in TA A7.5 [EN010162/APP/6.4.7.5] and summarised at section 7.7.9.5.
Boaters on the river should be included.	Effects on recreational users of the River Trent are considered in TA A7.5 [EN010162/APP/6.4.7.5].
Additional viewpoints requested at Scoping	<p>It is important to note that viewpoints are not visual receptors, but are just sample locations to represent effects, and effects are assessed (in section 7.7.10) in full for all visual receptors in the study area regardless of the number of viewpoints used. Viewpoints added after scoping and included in the PEIR were:</p> <ul style="list-style-type: none"> • Viewpoint 47 on the banks of the Trent; • Viewpoint 48 on Ossington Road near wind turbines; • Illustrative views A and B near Besthorpe and Collingham; • Illustrative view H at the OK Diner on the A1 looking towards St Mary’s church spire; and • Illustrative views C & D in the open fields at Laxton. <p>Following the agreement of a 2 km study area for this assessment, viewpoint 47 and illustrative views A-D were beyond the 2 km study area and are not included in this assessment.</p>
Additional viewpoints requested after PEIR	<p>In response to the PEIR, 18 additional viewpoints were suggested by NSDC, Carlton-on-Trent Parish Council (CTPC) and Egmonton Parish meeting. All of these viewpoints were discussed with NSDC and it was agreed that:</p> <ul style="list-style-type: none"> • Viewpoints 50-55 would be added to the assessment; • Viewpoints 15, 18 and 28 would be moved to locations suggested by NSDC and CTPC; • Illustrative view I was added in TA7.4 [EN010162/APP/6.4.7.4]. <p>The remaining suggested locations represented locations close to existing viewpoints and/or represented the same receptor groups and were agreed to be omitted.</p>
Sherwood Forest Regional Park should not be considered as a landscape designation	Noted – the NSDC policy to create this Regional Park is no longer being pursued, and hence this receptor has been scoped out of assessment in this chapter and is not included in the text or figures.

Issue	How this is addressed
Scope of cumulative assessment	The scope of the cumulative assessment, taking into account comments from consultees (as set out in TA A7.1 [EN010162/APP/6.4.7.1]), is set out in Chapter 2, EIA [EN010162/APP/6.2.2]. Section 7.9 sets out how these developments are considered within the LVIA.
RVAA study area of 100 m may not be adequate	<ul style="list-style-type: none"> In response to these comments, the RVAA study area was extended to 250 m for the PEIR stage assessment which covered stages 1-3 of the RVAA. Stage 4 of the RVAA for those properties which require it has been provided in TA TA7.6 [EN010162/APP/6.4.7.6]. <p>In response to the PEIR, Egmonton Parish Meeting requested an extension to the study area to include homes to the north of Moorhouse located approximately 0.4 km from the Development. However, PEIR stage assessment had identified that changes to views at these homes would be either Small scale (as illustrated by viewpoint 53) or Negligible scale. The RVAA provided in TA7.6 [EN010162/APP/6.4.7.6] has therefore not been extended to include these properties.</p>
The ES should include a consideration of effects such as disturbance of tranquillity.	There is no guidance relating to the assessment of effects on tranquillity and (except in relation to Open Green Spaces) it is not protected by national planning policy. Where tranquillity is an important baseline characteristic or quality of a landscape receptor, effects are considered in this assessment.
Photographs of existing solar farms should be provided as examples	Photographs of solar farms in / near the study area at Egmonton and Eakring have been provided as illustrative views J and K (in TA A7.4 Illustrative Views [EN010162/APP/6.4.7.4]), showing the appearance of similar fixed solar panels, and inverters, fences and security cameras in cloudy and sunny weather conditions.
Comments on design following publication of the PEIR	<p>Following the publication of the PEIR, a number of consultees and members of the public made comments on design, including such matters as reducing visibility from houses, settlements and roads; or increasing offsets from footpaths.</p> <p>For the most part, these comments sought to prevent visibility from homes and settlements and/or related to non-significant effects and, in accordance with NPS EN-1, the design was not adjusted in response. Design changes specifically made to reduce landscape and visual impacts,</p>

Issue	How this is addressed
	<p>and effects on residential visual amenity are summarised in section 7.6.4.1.</p> <p>Changes to the design for other reasons (including flood risk, heritage, consultation comments and/or technical design factors) have resulted in reductions in panel areas which also have the benefit of reducing landscape and visual effects. This is particularly the case in relation to the area between Cromwell and Kelham, where a large extent of panel areas have been removed.</p> <p>A fully detailed review of comments on the design and the responses is provided in the Consultation Report [EN010162/APP/5.1]. The Design Approach Document [EN010162/APP/5.8] provides a more detailed description of the evolution of the design and the rationale for each design change.</p>

7.3 ASSESSMENT METHODOLOGY AND SIGNIFICANCE CRITERIA

³⁴ This section outlines the methodology for assessing the likely significant landscape and visual effects from the construction, operation and decommissioning of the Development. Full details of the assessment methodology are described in TA A7.2 [EN010162/APP/6.4.7.2]. The following methodology guidance informs the assessment:

- Guidelines for Landscape and Visual Impact Assessment, (Third Edition), published jointly by the Landscape Institute and the Institute of Environmental Assessment (GLVIA 3)¹;
- Technical Guidance Note 2024-01: Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3)²;
- Technical Guidance Note 06/19: Visual Representation of Development Proposals³;
- Technical Guidance Note 02/21: Assessing landscape value outside national designations⁴;
- Technical Guidance Note 2/19: Residential Visual Amenity Assessment;

¹ Landscape Institute and Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment: Third Edition (GLVIA3).

² Landscape Institute (2024). Technical Guidance Note 2024-01: Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3). Available at: [GLVIA3-Notes-and-Clarifications.pdf \(landscapeinstitute.org\)](https://www.landscapeinstitute.org/2024/01/tgn-2024-01-notes-and-clarifications-on-aspects-of-the-3rd-edition-guidelines-on-landscape-and-visual-impact-assessment/) [accessed on 18/09/2024].

³ Landscape Institute (2019) Technical Guidance Note 06/19: Visual Representation of Development Proposals. Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI_TGN-06-19_Visual_Representation.pdf [accessed on 04/03/2024].

⁴ Landscape Institute (2021) Technical Guidance Note 02/21: Assessing landscape value outside national designations. Available at: <https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2021/05/tgn-02-21-assessing-landscape-value-outside-national-designations.pdf> [accessed on 04/03/2024].

- An Approach to Landscape Character Assessment⁵;
 - An Approach to Landscape Sensitivity Assessment⁶; and
 - Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment⁷.
- 35 The assessment is informed by initial desk study and site visits to identify receptors (landscape character areas, landscape designations and groups of people who may be affected by changes to views). The desk study includes the preparation of Zone of Theoretical Visibility (ZTV) studies to identify potential areas of visibility of the Development. This information is used to aid identification of the study area and receptors likely to be affected. ZTV studies prepared at the PEIR stage covered a 5 km distance from the Development and this information about potential visibility and the assessment of potential effects at PEIR stage informed the agreement to reduce the study area to 2 km for this assessment. Viewpoints are identified to represent a range of distances, directions and receptors, located in areas of visibility identified using the ZTV studies and site survey. The viewpoint selection has also been refined via consultation (see Table 7.1 and TA A7.1 [EN010162/APP/6.4.7.1]) both at the scoping stage and after publication of the PEIR. Viewpoints are used as ‘sample’ locations to inform the assessment of effects on receptors.
- 36 A summary of the approach and terminology used in setting out judgements is provided below. A more detailed description of the factors considered in making each judgement is provided in TA A7.1 [EN010162/APP/6.4.7.1]. It should also be noted that although discrete ‘ratings’ are listed for each judgement below, intermediate values are also used, e.g. Major/moderate to mean between Major and Moderate.

7.3.1 Sensitivity

- 37 Sensitivity judgements take account of consideration of the value and susceptibility of the receptor as illustrated by the diagrams below. Where sensitivity is judged to lie between levels, an intermediate assessment will be adopted. As comparison of the two diagrams indicates, a slightly greater weight is given to susceptibility in judging sensitivity of visual receptors.

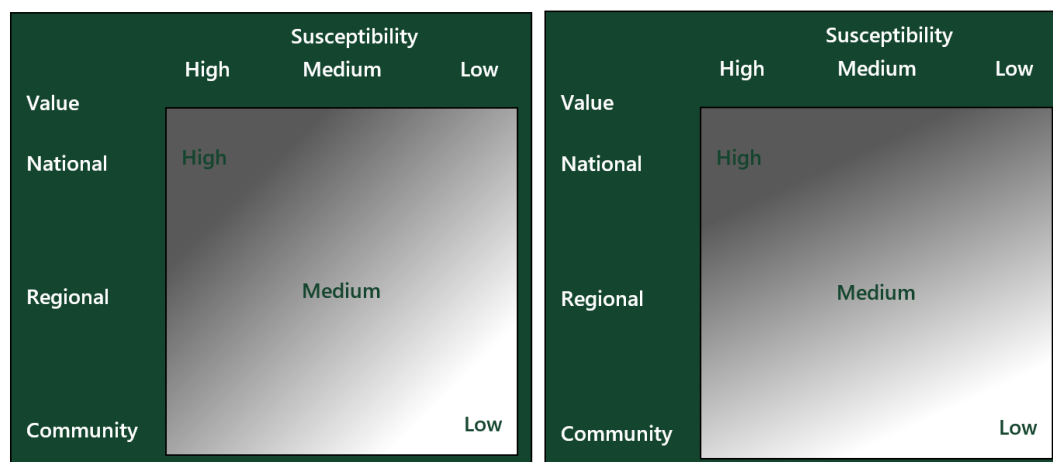
⁵ Natural England (2014). An Approach to Landscape Character Assessment. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/691184/landscape-character-assessment.pdf [accessed on 04/03/2024].

⁶ Natural England (2019). An Approach to Landscape Sensitivity Assessment. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/817928/landscape-sensitivity-assessment-2019.pdf [accessed on 04/03/2024].

⁷ The Planning Inspectorate (2024). Advice Note Seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment> [accessed on 07/11/2024].

Landscape Sensitivity

Visual Sensitivity



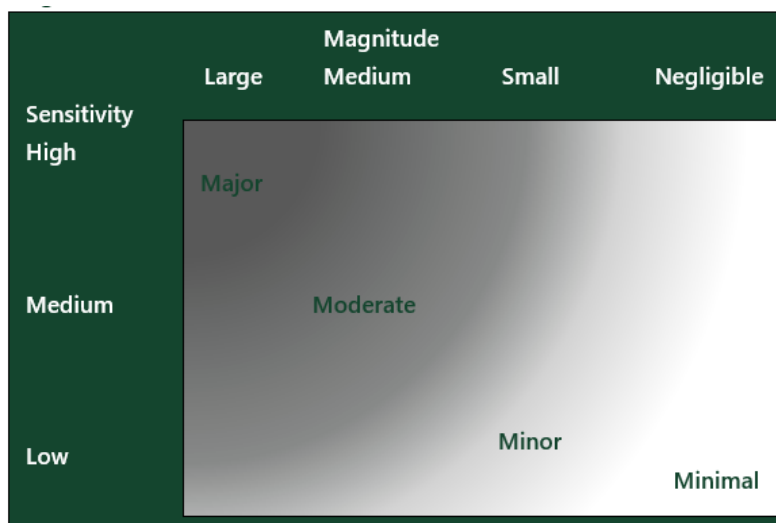
38

7.3.2 Magnitude

- 39 Magnitude of change (Large, Medium, Small, Negligible) judgements take account of the degree of change arising from the Development at any particular location in terms of its size or scale; extent of the area or receptor that is influenced, and the duration and reversibility of the change.
- 40 The maximum scale of change on the receptor is the primary factor in determining magnitude. However, for particularly widespread and/or long-lasting effects the magnitude judgement may be slightly greater than the scale of change; or for effects that are constrained in geographic extent and/or short-lived the magnitude of change may be slightly lower than the scale of change.

7.3.3 Level of Effect

- 41 The level (Major, Moderate, Minor, Minimal – or intermediate judgements between these levels, e.g. Major/moderate) of any identified landscape or visual effect reflects a professional judgement as to the relative importance of the effects identified, taking account of the sensitivity of the receptor and the predicted magnitude of change as illustrated by the diagram below. Where the effect has been classified as Major or Major/moderate this is considered to be equivalent to likely significant effects referred to in the EIA Regulations. The indication that some effects are ‘significant’ should not be taken to imply that they should warrant refusal in any decision-making process.



7.3.4 Beneficial/Adverse

- 42 Landscape and visual effects can be beneficial, adverse or neutral (different but neither better nor worse taking all factors into account). Taking a precautionary approach in making an assessment of the ‘worst case scenario’, the assessment considers that all effects which would result in a notable difference to the existing features, character, views or special qualities would be adverse unless indicated otherwise. It should be noted however that people’s individual responses to change arising from development can vary markedly.

7.3.5 Distances

- 43 Where distances are given in the assessment, these are approximate distances between the nearest part of the solar or substation/BESS areas and the nearest part of the receptor in question, unless explicitly stated otherwise.

7.3.6 Visualisations

- 44 Panoramic photographs of the existing view and matched wireline images for cardinal directions at all representative viewpoints were provided within Figure 7.11 of the PEIR. The method of visualisation selected was and has been informed by Landscape Institute Technical Note 06/19 Visual representation, with matched wirelines being the most appropriate approach at the PEIR stage to represent the potential extent and visual context of the Development at that time.
- 45 To inform and illustrate this assessment (at EIA stage) a combination of matched wirelines oriented to face towards the Development and photomontages at completion and Year 10 are provided. This format was agreed with NSDC to be most appropriate for this assessment. Photomontages are used for the viewpoints where effects would be greatest, as agreed with NSDC.

- 46 The methodology of production for the visualisations is described in TA A7.2 [EN010162/APP/6.4.7.2]. The depiction of the solar areas in both wirelines and photomontages shows the illustrative layout, with heights reflecting the maximum height parameters for each component as set out within ES Chapter 5, Development Description, [EN010162/APP/6.2.5]. Intermediate substations are shown as simple boxes depicting the maximum height across the entire area within which they may be located. This means that they are shown larger than they would be. The BESS and 400 kV substation are also shown in this maximised way in wirelines, but photomontages for viewpoints 27, 38 and 49 show the illustrative layout for these components to provide a more realistic indication of their expected appearance. The assessment is based on the wirelines which indicate the 'worst case' changes to views.
- 47 Operational developments are not modelled in visualisations as they are visible in photographs and/or on site; relevant consented developments are modelled in wirelines (shown in grey) and photomontages as they form part of the future baseline and their expected presence is taken account of in assessing the effects of the Development. Relevant developments in planning are also shown in wirelines, but are only considered in the cumulative effects assessment provided in section 7.9.
- 48 Additional illustrative views referenced in this chapter are provided in TA A7.4 [EN010162/APP/6.4.7.4]. These photographs are provided to illustrate points discussed in the text rather than to show the appearance of the Development, and are not prepared to the standards described above.

7.3.7 Cumulative Assessment

- 49 Further information relating to cumulative effects assessment for the Development is set out within Chapter 2, EIA [EN010162/APP/6.2.2].
- 50 The approach to cumulative assessment for LVIA is set out within TA A7.2 [EN010162/APP/6.4.7.2], and a cumulative effect assessment is provided at Section 7.9.

7.3.8 Night-time Assessment

- 51 The Development does not include permanent lighting. Infra-red security lighting would be used at night, and lighting would be available for emergencies⁸. As a result, no significant effects are likely to arise at night, and night-time impacts are not assessed further.

7.3.9 Glint and Glare

- 52 A technical assessment of Glint and Glare is provided in TA A16.1 [EN010162/APP/6.4.16.1]. Glint and glare effects may be experienced by

⁸ As set out in the Outline Construction Environmental Management Plan (oCEMP), provided as TA A5.3 [EN010162/APP/6.4.5.3], TA A5.5 Outline Operation Environmental Management Plan (oOEMP). Provided as TA 5.5 [EN010162/APP/6.4.5.5], and Outline Decommissioning and Restoration Plan (oDRP), provided as TA 5.6 [EN010162/APP/6.4.5.6] and secured by DCO requirement.

people in the public domain as they move around the landscape. This is not explicitly considered in the LVIA and no detailed studies are provided or referred to as it would be a transitory experience – similar to seeing glare off water or glass while moving through the landscape along roads or rights of way. It would be one of the adverse aspects of the visual experience of seeing the solar farm from some locations during the early morning or late evening in sunny weather when looking towards the sun low in the sky and is taken account of implicitly in considering the visual effects.

7.3.10 Residential Amenity

- 53 As set out within Landscape Institute guidance ‘Residential Visual Amenity Assessment (RVAA)’⁹:
- 54 *“Changes in views and visual amenity are considered in the planning process. In respect of private views and visual amenity, it is widely understood in terms of planning policy that, no one has ‘a right to a view.’*
...
- 55 *It is not uncommon for significant adverse effects on views and visual amenity to be experienced by people at their place of residence as a result of introducing a new development into the landscape. In itself this does not necessarily cause particular planning concern. However, there are situations where the effect on the outlook / visual amenity of a residential property is so great that it is not generally considered to be in the public interest to permit such conditions to occur where they did not exist before.”*
- 56 A preliminary assessment of residential visual amenity was provided as part of the PEIR assessment and this is updated to take account of the revised design, completed in TA A7.6 [EN010162/APP/6.4.7.6] and summarised in this chapter in Section 7.10.8.

7.4 LEGISLATION AND PLANNING POLICY

7.4.1 National Planning Policy

- 57 Relevant national planning policy is set out within:
- Overarching NPS EN-1¹⁰ which, along with any technology specific NPSs, is the primary policy for decision making in relation to nationally-significant energy projects;

⁹ Landscape Institute (2019). LI TGN 02/19 Residential Visual Amenity Assessment (RVAA). Publication, etc. Available at: <https://www.landscapeinstitute.org/technical-resource/rvaa/> [accessed on 04/03/2024].

¹⁰ Department of Energy Security & Net Zero (2023). Overarching National Policy Statement for Energy (EN-1). Available at: <https://assets.publishing.service.gov.uk/media/65a7864e96a5ec0013731a93/overarching-nps-for-energy-en1.pdf> [accessed on 04/03/2024].

- NPS EN-3¹¹, Renewable Energy Infrastructure which sets out requirements in relation to all renewable energy development along with providing specific advice in relation to solar PV development;
- NPS EN-5¹², primarily relates to projects for the installation of electricity networks such as overhead lines, but also has relevance in relation to substations; and
- The NPPF¹³ sets out the government’s planning policies for England and how these should be applied. Whilst the policy set out may be relevant to the assessment, particularly those sections relating to achieving well designed places and conservation and enhancements of the natural environment, the NPPF does not form the basis for a decision on a Development Consent Order (DCO) application, as will be made for the Development.

58 National planning policy is considered in further detail in Chapter 6, Planning Policy, [EN010162/APP/6.2.6] and in the Planning Statement [EN010162/APP/5.4] (which is not part of the ES).

59 Consultation drafts of the NPSs have been issued (April 2025) in response to changing climate change policy, however, the content of these with respect to landscape assessment is materially unchanged from the adopted versions, and hence this chapter refers to the adopted versions.

7.4.2 Local Planning Policy

60 Current local planning policy and guidance is described in the following adopted documents:

- Newark & Sherwood Amended Core Strategy¹⁴;
- Newark & Sherwood Allocations & Development Management Plan Document, DPD¹⁵;
- Newark and Sherwood Landscape Character Assessment, SPD¹⁶.

¹¹ Department of Energy Security & Net Zero (2023). National Policy Statement for Renewable Energy Infrastructure (EN-3). Available at <https://assets.publishing.service.gov.uk/media/655dc352d03a8d001207fe37/nps-renewable-energy-infrastructure-en3.pdf> [accessed on 04/03/2024].

¹² Department of Energy Security & Net Zero (2023). National Policy Statement for Electricity Networks Infrastructure (EN-5). Available at <https://www.gov.uk/government/publications/national-policy-statement-for-electricity-networks-infrastructure-en-5> [accessed on 04/03/2024].

¹³ Department for Levelling Up, Housing and Communities (December 2024). National Planning Policy Framework. Available at: <https://assets.publishing.service.gov.uk/media/675abd214cbda57cacd3476e/NPPF-December-2024.pdf> [accessed on 31/12/2024].

¹⁴ Newark & Sherwood District Council (2019). Newark & Sherwood Plan Review - Amended Core Strategy. Available at: <https://www.newark-sherwooddc.gov.uk/media/newark-and-sherwood/images-and-files/planning-policy/pdfs/core-strategy/ACS2019.pdf> [accessed on 04/03/2024].

¹⁵ Newark & Sherwood District Council (2013). Allocations & Development Management Development Plan Document. Available at: <https://www.newark-sherwooddc.gov.uk/media/newark-and-sherwood/images-and-files/planning-policy/pdfs/allocations-development-managment-options-report/20161205AdoptedAllocationsDevelopmentManagementDPD.pdf> [accessed on 04/03/2024].

¹⁶ Newark and Sherwood District Council (2013). Landscape Character Assessment Supplementary Planning Document. Available at: <https://www.newark-sherwooddc.gov.uk/lcaspd/> [accessed on 24/06/2025]

- 61 The Nottinghamshire County Council Minerals Local Plan (2021), Waste Core Strategy (2013) and Adopted Waste Local Plan (2002) also form part of the development plan covering the Order Limits although these policy documents deal with specific types of development and are not relevant to the Development.

7.4.2.1 Newark & Sherwood Amended Core Strategy

- 62 Key policies relevant to this assessment include:

- Core Policy 9 Sustainable Design – is primarily concerned with built development, rather than energy infrastructure, but notes that all development should achieve “*a high standard of sustainable design and layout that is capable of being accessible to all and of an appropriate form and scale to its context complementing the existing built and landscape environments*” and that “*optimises site potential at a level suitable to local character*”;
- Core Policy 10 Climate Change – which sets out that renewable energy development will be supported where adverse impacts have been satisfactorily addressed;
- Core Policy 12 Biodiversity and Green Infrastructure – which states that the council will seek to ensure development maximises opportunities to conserve and enhance biodiversity and increase access to green infrastructure. It is further noted that developments which seek to enhance the existing green infrastructure resource will be viewed positively; and
- Core Policy 13 Landscape Character – which states that the council will seek to secure development that “*positively addresses the implications of relevant landscape Policy Zone(s)*” identified by the Landscape Character Assessment Supplementary Planning Document (SPD).

7.4.2.2 Newark & Sherwood Allocations & Development Management DPD

- 63 Key policies relevant to this assessment include:

- Policy DM4 Renewable and Low Carbon Energy Generation – which sets out, inter alia, that consent should be granted for standalone renewable energy proposals where the benefits are not outweighed by detrimental impacts on landscape character (individually or cumulatively) and amenity;
- Policy DM5 Design – sets out a number of criteria, including amenity and local distinctiveness and character, which all development proposals will be assessed against; and
- Policy DM7 Biodiversity and Green Infrastructure – states, inter alia, that new development “*should protect, promote and enhance green infrastructure to deliver multi-functional benefit*”.

7.4.3 Policy Considerations

- 64 Design and mitigation relevant to landscape and visual impacts are considered at section 7.6. Effects on landscape character and visual amenity are considered in section 7.7.

7.4.4 Other Relevant Guidance and Documents

65 The following national and local planning guidance and baseline studies inform the assessment and mitigation by design:

- National Character Area Profiles¹⁷;
- Newark & Sherwood Landscape Character Assessment SPD¹⁸;
- Bassetlaw Landscape Character Assessment¹⁹; and
- North Kesteven Landscape Character Assessment²⁰.

66 Baseline studies are further considered in section 7.5.2 and design advice in section 7.6. Nationally Significant Infrastructure Projects: Advice on Good Design²¹ focusses on the design process and provides no specific guidance in relation to the mitigation of landscape and visual effects.

7.5 BASELINE CONDITIONS

7.5.1 Introduction

67 LVIA is an iterative process; baseline studies have informed both design and early assessment before the application design and this assessment were prepared this chapter. This section provides a review of documented baseline studies (as listed at 7.4.4 above) and a baseline description of the land within the Order Limits and the surrounding landscape and visual context. The baseline description of the individual landscape and visual receptors is provided alongside the assessment in section 7.7 for ease of reference.

7.5.2 Baseline Studies

7.5.2.1 National Character Area Profiles

68 Natural England's National Character Area (NCA) profiles define broad areas that share similar landscape characteristics at a national scale across the England and provide baseline descriptions of character for each NCA. Statements of Environmental Opportunity (SEOs) are also suggested for each area which "*offer guidance on the critical issues, which could help to achieve sustainable growth and a more secure environmental future*". The NCA profiles inform the assessment of effects on NCAs included within this

¹⁷ Natural England (2012-2015). National Character Area Profiles. Available at:

<https://publications.naturalengland.org.uk/category/587130> [accessed on 04/03/2024].

¹⁸ Newark & Sherwood District Council (2013). Landscape Character Assessment Supplementary Planning Document. Available at: <https://www.newark-sherwooddc.gov.uk/lcaspd/> [accessed on 04/03/2024].

¹⁹ Bassetlaw District Council (2009). Bassetlaw Landscape Character Assessment. Available at: <https://www.bassetlaw.gov.uk/planning-and-building/planning-services/planning-policy/core-strategy-and-development-policies/core-strategy-adopted-development-plan/background-studies/landscape-character-assessment-lca/> [accessed on 04/03/2024].

²⁰ David Tyldesley and Associates for North Kesteven District Council (2007). North Kesteven Landscape Character Assessment. Available at: <https://www.n-kesteven.gov.uk/planning-building/planning/planning-applications/landscape-character-assessment> [accessed on 04/03/2024].

²¹ Planning Inspectorate (2024). Nationally Significant Infrastructure Projects: Advice on Good Design. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-good-design> [accessed on 07/11/2024].

chapter and SEOs have further informed the landscape mitigation and enhancement measures that are embedded within the design of the Development.

7.5.2.2 Newark & Sherwood Landscape Character Assessment SPD

- 69 This document provides a baseline assessment of local landscape character within Newark and Sherwood District, based on a county level methodology and Regional Character Areas (RCAs) defined across Nottinghamshire. This study provides a more detailed analysis, breaking down RCAs into distinct Landscape Character Types (LCTs) for which key landscape characteristics are defined. These LCTs are further broken down into Policy Zones (PZs) which define management objectives for discrete areas as ‘Conserve’, ‘Reinforce’, ‘Restore’, ‘Create’ or combinations thereof.
- 70 The LCTs defined by this study are the primary landscape receptors upon which effects are assessed in this chapter. The PZs have further informed the landscape mitigation and enhancement measures that are embedded within the design of the Development. The sensitivity judgements provided for each policy zone are ‘inherent’ sensitivity and do not relate to specific forms of development. For this reason, they are not used in this LVIA.

7.5.2.3 Bassetlaw Landscape Character Assessment

- 71 This study follows the same county level methodology as the Newark and Sherwood character assessment and provides a similar baseline description of local landscape character although does not define local LCTs. It informs the assessment of effects on character within Bassetlaw.

7.5.2.4 North Kesteven Landscape Character Assessment

- 72 This study provides a baseline description of local landscape character within North Kesteven District and informs the assessment of effects on character within that area.

7.5.3 Development Site and Context

- 73 The Order Limits are located to the west of the broad vale of the River Trent, in a gently undulating landscape of mixed, but predominantly arable, farming and occasional woodlands. Villages and hamlets are connected by rural roads and public rights of way. Smaller fields and tree cover are more common close to the villages and along water courses, with larger and more open fields away from these. Roadside hedges and trees are common and tend to constrain views for drivers along many of the routes, but there are also more open vistas available where roadside vegetation is absent, sparse or cut low.
- 74 The Order Limits are located within NCA 48 Trent and Belvoir Vales and the majority of the Order Limits fall within the local Mid Nottinghamshire Farmlands - Village Farmlands with Ancient Woodlands LCT, although they also encompass smaller parts of some neighbouring LCTs. These host LCTs are all fairly typical of their broader types, which are generally described as areas of low lying, undulating terrain with agriculture being the dominant land use. The area within and immediately surrounding the Order Limits is rural in

character although proximity to Newark-on-Trent, major transport infrastructure including the A1 road and East Coast Main Line (ECML) railway, and Staythorpe Power Station and associated substations and pylons all exert a more urbanising influence over areas to the immediate east and south.

- 75 Visual receptors include residents, visitors and those travelling within 2 km of the proposed solar panels and substations. This encompasses people within towns and villages, areas of dispersed rural settlement, those using main road and rail routes along with people travelling on local roads, waterways and traversing the countryside on public rights of way.
- 76 There are no nationally designated landscapes within 30 km of the Order Limits and effects on national landscape designations have been agreed through Scoping to be scoped out of this assessment; there are also no local landscape designations within the study area. There are a number of national and local heritage related designations within the study area including Conservation Areas, the Rufford Abbey Registered Park and Garden and the Historic Landscape around Laxton. Effects on these heritage assets are primarily considered within Chapter 11, Cultural Heritage and Archaeology, [EN010162/APP/6.2.11] although their presence is taken into account in this chapter as factors which influence landscape value.

7.5.4 Future Baseline and Cumulative Development

- 77 Existing development within the study area and surrounding context is included as part of the landscape and visual baseline. Consented development forms part of the future baseline and is also considered to form part of the baseline for this assessment. Operational solar farms within and close to the study area are shown on Figures, as are consented developments that are relevant to this assessment (see section 7.9).
- 78 Consented developments of particular relevance to the effects reported in this chapter are the consented solar farms near Winkburn, Knapthorpe Lodge, Muskham Wood and at Tuxford Road. Other consented developments on the shortlist, including the Staythorpe BESS will have a more limited influence on the landscape and views within the study area and/or a more limited influence on the effects arising from the Development. The SSE BESS and Kelham solar farm were consented during the Examination stage of the Development and are considered in section 7.9 Cumulative Effects Assessment rather than being included in the future baseline.
- 79 The landscape and views are also likely to change as a result of climate change and other factors that are not the result of development, such as plant diseases and pests. Known locally relevant factors such as the potential for Ash Die-back to cause a reduction in tree cover have been taken account of in this chapter, but other potential changes are less predictable and have not been taken account of.

7.5.5 Receptor Summary

80 Table 7.2 summarises landscape and visual receptors within the study area which have theoretical visibility as indicated by Figures 7.4-7.7 [EN010162/APP/6.3.7.4-7], grouped by distance from the nearest proposed solar panels or substation area.

Table 7.2: Landscape and Visual Receptors

Landscape Receptors within 1 km as shown on Figure 7.4 [EN010162/APP/6.3.7.4]
Mid Nottinghamshire Farmlands / Village Farmlands with Ancient Woodlands LCT
Mid Nottinghamshire Farmlands / Meadowlands LCT
Mid Nottinghamshire Farmlands / Village Farmlands LCT
Trent Washlands / Village Farmlands LCT
Trent Washlands / River Meadowlands LCT
Mid Nottinghamshire Farmlands RCA
Trent Washlands RCA
NCA 48 Trent and Belvoir Vales
Visual Receptors within 1 km as shown on Figure 7.5 [EN010162/APP/6.3.7.5]
Eakring
Kersall
Maplebeck
Group A) Between Micklebarrow Hill and Kelham
Group B) Caunton to A617
Group C) Between Caunton, Eakring and Kneesall
Group D) Between Kneesall, Caunton and Ossington Airfield
Group E) Between A1, Ossington and Moorhouse
Group F) Between Carlton-on-Trent, Ossington and Norwell
Group G) East of A1
Group H) Ossington to Cromwell and A616, including Norwell, Norwell Woodhouse and Caunton
Group I) Hockerton, Upton, Staythorpe, Averham and Kelham
Group J) Between Hockerton and Eakring
Group K) Kneesall to Laxton and Egmanton
Recreational users of River Trent
A1

A616
A617
East Coast Main Line
Robin Hood Way
Trent Valley Way
Landscape Receptors between 1-2 km as shown on Figure 7.3 [EN010162/APP/6.3.7.3]
Bassetlaw - Mid Nottinghamshire Farmlands
Visual Receptors between 1-2 km as shown on Figure 7.5 [EN010162/APP/6.3.7.5]
Nottingham – Lincoln (Castle) line

7.6 DEVELOPMENT DESIGN MITIGATION

7.6.1 Relevant Guidance

- 81 Design guidance (as listed at 7.4.4) has informed the evolving design and mitigation of landscape and visual effects as set out below.

7.6.2 National Policy Statements

- 82 NPS EN-1 Sets out the following policy in relation to the mitigation of landscape and visual effects at 5.10.25-5.10.27:
- 83 *“Reducing the scale of a project can help to mitigate the visual and landscape effects of a proposed project. However, reducing the scale or otherwise amending the design of a proposed energy infrastructure project may result in a significant operational constraint and reduction in function - for example, the electricity generation output. There may, however, be exceptional circumstances, where mitigation could have a very significant benefit and warrant a small reduction in function. In these circumstances, the Secretary of State may decide that the benefits of the mitigation to reduce the landscape and/or visual effects outweigh the marginal loss of function.*
- 84 *Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project.*
- 85 *Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site. For example, filling in gaps in existing tree and hedge lines may mitigate the impact when viewed from a more distant vista.”*
- 86 In accordance with this policy, reductions to panel areas have been targeted in areas where such reductions are considered necessary to mitigate effects

and where that mitigation can be achieved without a notable reduction in panel area. Opportunities for offsite mitigation have been considered though none have been identified as necessary during the design development and assessment .

- 87 NPS EN-3 sets out further policy in relation to the mitigation of landscape and visual effects arising from solar farms at paragraphs 3.10.28 and 30.10.90-3.10.91, as follows:
- 88 *“Applicants are encouraged where possible to minimise the visual outlook from existing public rights of way, considering the impacts this may have on any other visual amenities in the surrounding landscape.*
- 89 *Applicants ... will be expected to direct considerable effort towards minimising the landscape and visual impact of solar PV arrays especially within nationally designated landscapes.*
- 90 *Whilst there is an acknowledged need to ensure solar PV installations are adequately secured, required security measures such as fencing should consider the need to minimise the impact on the landscape and visual impact (see paragraphs 2.10.31 – 2.10.33 above).*
- 91 *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.”*
- 92 A primary element of the embedded mitigation for landscape and visual effects arises from site selection – in that the Development is not within and would not affect any nationally (or locally) designated landscapes.
- 93 The Design Approach Document [EN010162/APP/6.5.8] provides detail as to how various measures have been incorporated into the design of the Development. Key aspects of the design that provide mitigation for landscape and/or visual effects are set out in Table 7.3 below.

7.6.3 Newark and Sherwood Landscape Character Assessment SPD

- 94 As well as providing a baseline assessment of the local landscape character, this local guidance provides detailed advice on recommended actions for each ‘policy zone’ (a sub unit of the landscape within each Landscape Character Type; LCT) and recommended species lists for planting within each Regional Character Area.
- 95 As the design has developed , an understanding of the sensitivity of the local landscape character types described in the SPD has informed the selection of the solar panel areas, with those areas mostly within larger scale, flatter arable landscapes. The types of planting included within the Development have been informed by an understanding of the characteristic local vegetation patterns and types.

7.6.4 Mitigation and Enhancement Measures

⁹⁶ Measures included within the design to prevent or reduce landscape and/or visual effects are set out in Table 7.3.

Table 7.3: Embedded Mitigation Measures

Measure	Description
Site selection avoids designated landscapes	The site selection has avoided designated landscapes such that it is neither within or close to nationally or locally designated landscapes.
Site selection avoids more sensitive landscape character types	Solar panel areas would be mostly within larger scale, flatter arable landscapes.
Visibility from settlements is minimised.	The siting of all above ground elements of the Development has been selected to minimise visibility from settlements. This particularly influenced the omission of north-facing valley sides to the south of Kneesall; slopes facing towards the northwest edge of Norwell Woodhouse, and fields close to Bathley (for the PEIR-stage design).
100 m set back from homes where panels would be openly visible	Except where they would be fully screened by existing features, solar areas would be set back 100 m from homes.
Managing existing hedgerows and panel setbacks	Where local roads and PRow pass alongside fields containing panels, hedgerows would be managed and panels set back an appropriate distance to ensure that: <ul style="list-style-type: none"> • The hedgerows remain of a suitable maintainable height as dense hedges and do not become over-tall and thin at the base, and; • Fencing and CCTV are not visible above the hedges as far as practicable and visibility of the solar panels over the hedge is minimised – noting that topography would prevent full screening.
Reinforcement of existing hedgerows	Existing hedgerows would be ‘gapped up’ where sparse in order to provide more effective visual mitigation (and enhance the landscape fabric).
Tree planting along northern boundaries and around substations/BESS	Where shading from trees is not a consideration (i.e. along northern boundaries of solar panel areas and around substations and BESS), tree and hedgerow planting would be included as visual mitigation.

Measure	Description
Hedgerow planting around solar areas	New hedgerow planting is proposed where hedgerows are currently absent around panel areas and the addition of new hedgerows would provide beneficial mitigation of effects on visual receptors.
Seeding and management of panel areas	The landscape fabric of the solar areas would be maintained to ensure it remains suitable for future farming whilst supporting biodiversity during operation. These measures would also permit reinstatement of the present landscape character post-operation.
Diversion of Public Rights of Way (PRoW)	Where existing PRoW would pass through the middle of fields proposed for solar panels, these would, as far as practicable, be re-routed around the field boundaries in order that users of the routes have established field boundaries to one side, rather than solar panels to both sides.
Selection of fencing, CCTV and lighting.	<p>Fencing around the majority of the Development, where required, would be 'deer fencing' – comprised of wooden poles and a wide gauge wire-mesh fence. Such fences are relatively commonplace in rural areas to protect new planting from grazing by deer.</p> <p>The design of security measures is detailed in Chapter 5, Development Description [EN010162/APP/6.2.5]. The design of CCTV and lighting has been undertaken to minimise the frequency and duration use of lighting and the perceived intrusiveness of CCTV and other security measures.</p> <p>No areas of the Development would be continuously lit. Solar areas would have small pole-mounted cameras / infra-red sensors only and no lighting. Elsewhere, it is likely that movement-triggered lighting and passive infra-red sensors would be deployed for security purposes at the Intermediate and main substations and BESS and potentially at other pieces of critical infrastructure and construction compounds. This is set out and secured in the oCEMP (TA A5.3 [EN010162/APP/6.4.5.3]).</p>
Retention of existing trees and hedges	Solar, substation and BESS areas have been designed to take account of 15 m root protection zones around trees and a 5 m offset from field boundaries in order to maximise retention of existing vegetation. Existing openings into and between fields would be used wherever feasible in order to minimise the removal of vegetation for access and visibility splays. Gaps made in hedges for fences and access would be kept to the minimum working width required.

Measure	Description
Reinstatement of hedges after cable laying	Removal of hedges for cable laying will be limited to the minimum required width of working gaps and would be reinstated once the cable is installed. Species rich hedgerows would be translocated or reinstated upon completion of the works. This is set out and secured in the oCEMP (TA A5.3 [EN010162/APP/6.4.5.3])

97 Measures included within the design to enhance the landscape and/or views are set out in Table 7.4. These are secured via the Outline Landscape and Ecological Management Plan (oLEMP) provided as TA 5.1 [EN010162/APP/6.4.5.1] and Outline Recreational Routes Management Plan provided as TA 18.1 [EN010162/APP/6.4.18.1].

Table 7.4: Embedded Enhancement Measures

Measure	Description
Woodland, hedgerow and tree planting	As well as providing visual mitigation, proposed tree and hedgerow planting would enhance the existing landscape fabric and character and contribute to the 'landscape condition/quality' aspect of landscape value (see TA A7.3 [EN010162/APP/6.4.7.3]).
Circular walking route	A mapped, waymarked long-distance circular route would be provided around the Development and nearby landscape. This route would use a mix of existing PRow (within and outside the Order Limits), diverted PRow and permissive routes, including routes thorough or adjacent to solar areas and those further away. These access improvements would contribute to the 'Amenity and recreation' aspect of landscape value (see TA A7.3 [EN010162/APP/6.4.7.3]).
Permissive footpaths	Permissive routes are proposed through the Order Limits where they would provide improved access by way of connecting disjointed areas of the existing network of Public Rights of Way; reduce the need to walk along roads without pavements or through areas where there may be difficulties in managing the different requirements of recreation and livestock; or provide improved options for circular walks. These access improvements would contribute to the 'amenity and recreation' aspect of landscape value (see TA A7.3 [EN010162/APP/6.4.7.3]) during the operational life of the Development.

Measure	Description
Interpretation	Interpretation (typically in the form of information boards) would be provided at points of interest along the PRoW network and permissive routes through the Order Limits. These would identify information of local landscape, biodiversity and heritage interest. In addition, some interpretation would describe aspects of the solar farm itself – primarily in areas where the Development would be more openly visible. This interpretation would facilitate appreciation of the ‘Cultural heritage’ and/or ‘Cultural associations’ aspects of landscape value (see TA A7.3 [EN010162/APP/6.4.7.3]).
Wayfinding and access	Measures would be taken to improve wayfinding within the Order Limits – which would include mapped and waymarked routes. These improvements would contribute to the ‘Amenity and recreation’ aspect of landscape value (see TA A7.3 [EN010162/APP/6.4.7.3]).
Picnic areas and community orchard	Areas with interpretation, access and picnic areas would be provided around the circular route and in association with a community orchard. These improvements would contribute to the ‘Amenity and recreation’ aspect of landscape value (see TA A7.3 [EN010162/APP/6.4.7.3]).
Biodiversity net gain	Biodiversity enhancements would contribute to the ‘Natural Heritage’ aspect of landscape value (see TA A7.3 [EN010162/APP/6.4.7.3]).

7.6.4.1 Design changes in response to consultation

- 98 Following the publication of the PEIR, changes to the design for other reasons (including flood risk, heritage, consultation comments and/or technical design factors) have resulted in reductions in panel areas which also carry the benefit of reducing landscape and visual effects. This is particularly the case in relation to the area between Cromwell and Kelham, where a large extent of panel areas have been removed.
- 99 Design changes specifically made to reduce landscape and visual impacts, or effects on residential visual amenity, in response to consultation feedback between the PEIR and ES include:
- The omission of a panel area to the east of Kneesall Lodge;
 - The omission of a panel area to the northwest of Norwell Woodhouse; and
 - Increased setback of the panel area to the south of Brookdale Farm at Moorhouse.
- 100 In addition, a number of consultation comments focussed on the enclosure of views by proposed hedgerows. In developing the design, consideration was given to these comments, seeking to retain open outlooks where this

would be compatible with mitigating open views of the solar panels. Specific locations where the design was amended to address this point include:

- Increased setback of the panel area to the east of Ossington to retain long-distance outward views from around the road junction; and
- Footpath Maplebeck FP7 to the south of Maplebeck where a hedge which was proposed between the footpath and an ecological mitigation area is no longer proposed, In order to retain open views from the footpath. A fully detailed review of comments on the design and the responses is provided in the Consultation Report [EN010162/APP/5.1]. The Design Approach Document [EN010162/APP/5.8] provides a description of the evolution of the design.

7.7 ASSESSMENT OF LIKELY LANDSCAPE AND VISUAL EFFECTS

7.7.1 Introduction

101 This section sets out the effects that the Development would have on landscape and visual receptors. Some receptors are only briefly discussed and for receptors such as these, effects *“have been judged unlikely to occur or so insignificant that it is not essential to consider them further”* (GLVIA3, para. 3.19).

7.7.2 Effects During Construction and Decommissioning

102 Cable laying works would involve excavations and removal of short sections of hedges and would be perceived as being similar to normal roadworks or agricultural activity (apart from where HDD is required) and would be present for a very short time in any part of the Order Limits. Once cable laying is complete, disturbed ground and gapped up hedges would rapidly return to their normal appearance. Cable laying activity would not give rise to more than negligible effects and is not described in detail within this LVIA.

103 During construction and decommissioning, works would be taking place in one or more locations across the Development, giving rise to greater activity levels and presence of vehicles, however effects would remain of a similar scale and extent to the operational Development. Early in the construction process and late during decommissioning when more of the Development site would be in its baseline or post-decommissioning state, the extent of effects would be reduced. However, this reduced extent of effects is not taken account of in this LVIA; the assessment is made as though construction / decommissioning would be taking place across multiple areas of the Development site simultaneously.

104 Taking account of the similar scale and extent of effects during construction and early operation (before planting matures), and during operation and decommissioning (after hedges around solar areas have reached their design height – thereby screening solar panels and subsequent decommissioning activity) – these stages are assessed together. This chapter therefore considers effects arising during three key stages of the Development:

- Construction and early operation;
- Operation and decommissioning; and
- After decommissioning.

105 In considering the first two phases, references to the Development, solar areas, substations or similar is used as a short-hand description for the operational development and/or construction or decommissioning activity related to those elements. Similarly, where reference is made to planting maturing this may be taken to mean both proposed planting, and existing hedgerows within the Development site being allowed to grow to their design height.

7.7.3 Duration of Effects

106 Effects during the operation and decommissioning stage are assessed as though permanent, as they would last for longer than the 25-year period defined as Long-term in TA A7.2 [EN010162/APP/6.4.7.2].

107 Where mitigation planting would be effective at reducing effects, the effects during construction and early operation are assessed before planting matures as lasting for a Medium-term duration, with effects thereafter being assessed as though permanent. Assumptions about the growth of proposed mitigation planting are based on the advice provided in 'Predicting Tree and Hedge Growth' (IEMA)²², as follows:

- Where proposed mitigation consists of managing existing hedgerows to an increased height, this would typically achieve an adequate height to largely screen views of solar panels in 1-3 years, allowing for an increase from 1.3-1.5 m to 2-2.5 m;
- New planting planted as 60-80 cm whips would be expected to grow 30 cm per year for the first 5 years, increasing to 50 cm per year thereafter. Hedges would be managed to encourage them to thicken rather than continue to increase height. On this basis, hedges of 2-2.5 m which largely screen views of solar panels would be expected to be established in 7-10 years; and
- Newly planted trees and woodland (depending on species and stock sizes) would be expected to achieve heights of around 7-7.5 m in 15 years and continue to mature thereafter.

108 Where effects on receptors are judged to not be significant, they are described in TA A7.5 [EN010162/APP/6.4.7.5] and summarised below.

7.7.4 Effects on Landscape Fabric

109 Changes to landscape fabric will be as described at section 7.1.6 above. Removal of hedges and trees will be limited as the solar and substation development areas have been designed with 15 m root protection areas around trees and a 5 m buffer from field boundaries to protect these features. In addition, existing gaps and field entrances will be used where

²² Predicting tree and hedge growth (IEMA). Available at: [IEMA - Institute of Environmental Management and Assessment](#) [Accessed 19/09/2024]

possible for access. Short lengths of hedgerow removal will be required for cable laying, access tracks and fences which pass through them. Where removals are for cable laying, these will be reinstated after construction. New planting will include new hedges, tree belts and woodland, along with the establishment of meadows under the solar panels and suitable planting within the various ecological enhancement areas.

- 110 Taking these mitigation measures into account, in summary changes to landscape fabric will comprise:
- Changes to levels within the 400 kV Compound and BESS areas to create level platforms for the equipment;
 - Up to 21.4 ha. of land which is currently agricultural fields being permanently hard surfaced to accommodate substation and BESS compounds;
 - 999 ha. of agricultural fields becoming seeded as grassland and with solar panels installed;
 - Up to 145.25 km of fencing around solar areas, BESS and substations (of which 2.75 km would be security fencing around the substations assumed to be retained at decommissioning);
 - Up to 50 km of new stone access tracks within solar areas;
 - Up to 3 km of new tarmac access roads to substations and BESS areas (assumed to be retained after decommissioning);
 - 1,308 m of permanent hedgerow removals for access to solar areas and/or substation compounds;
 - 1,908 m of temporary removals of hedgerows for cable laying, which would be reinstated after construction;
 - Up to 98 tree removals as described in detail in TA A8.12 [EN010162/APP/6.4.8.12];
 - 50.4 km of new hedgerow planting (including hedges with trees); and
 - 25.8 ha. of new woodland planting.
- 111 Considering the removals, planting and enhancements together, the changes to landscape fabric would be expected to have **non-significant adverse** effects during construction and **increasingly beneficial** effects thereafter.

7.7.5 Geographic Distribution of Effects

7.7.6 ZTV Studies

- 112 Zone of Theoretical Visibility (ZTV) studies have been prepared to indicate the potential visibility of the solar panel and substation components of the Development; inform viewpoint selection and site assessment work; and ensure that this assessment focusses on the significant effects. Where receptors are outside of the area of visibility indicated by the ZTV study, no effects would arise and they are not considered further. Woodland planting is also proposed as part of the Development, but given the local landscape character includes frequent woodlands, it is not considered that new

woodlands would give rise to landscape and visual effects warranting detailed separate consideration in this LVIA.

- 113 The ZTV studies include screening from woodland and buildings to provide a more accurate representation of visibility (for methodology see TA A7.2 [EN010162/APP/6.4.7.2]). As indicated on the figures, localised features such as small copses, hedgerows or individual trees are not included within the terrain model and the extent of actual visibility on the ground would be less than that shown by the plans.
- 114 Figure 7.1: ZTV Study Including Screening [EN010162/APP/6.3.7.1] shows a widespread extent of theoretical visibility for the solar areas and Intermediate Substations that is generally limited by the local topography (see Figure 7.2 [EN010162/APP/6.3.7.2]). The Intermediate substations are mostly visible in the same places as the solar arrays, though the Ossington Road substation, which would be located in an open and elevated position has areas of additional visibility to the northeast where just the upper parts of the substation would be visible. In general, the main areas of theoretical visibility occur within 1-2 km of the solar panel areas and substations, and the ZTV shows that:
- To the north there is extensive potential visibility to 1 km, beyond which point it is mostly limited to the three ridgelines between Egmonton and East Markham;
 - To the northeast potential visibility is immediately limited by the A1 road corridor, which is located adjacent to or within around 0.6 km of the solar areas. Beyond this, infrequent patches of potential visibility occur across areas of higher ground, most notably across the ridgeline between Normanton on Trent and Tuxford;
 - To the east there is extensive theoretical visibility across the low-lying land around the River Trent. Beyond the ECML railway line, which is located within 1 km of the nearest solar area/substation, the extent of the Development that is theoretically visible would gradually decrease. In this direction settlements and other landscape features provide screening and create breaks in the potential visibility. Theoretical visibility becomes more fragmented beyond 3 km with a greater extent of the Development shown to be visible across the low hills around 4 km to the east;
 - To the southeast the main area of potential visibility extends to 1 km, with potential visibility becoming very fragmented beyond this and mostly terminating at the edge of Newark, between 2-3 km away;
 - To the south potential visibility persists across the low-lying land around the River Trent, becoming slightly more fragmented beyond 2 km;
 - To the southwest the main area of potential visibility extends 1-2 km from the Development across a local ridgeline. Beyond this, there is potential visibility shown across a second ridgeline between Kirklington and Upton, after which point the land falls and potential visibility is mostly limited until the land rises again around 5 km away;
 - At the western spur of the Development, solar areas lie within a topographic bowl and potential visibility in this direction extends

- approximately 1 km to the ridge of hills around Eakring. Beyond this point the land is lower-lying and potential visibility is generally limited;
- To the northwest extensive potential visibility is shown to 1 km with some more widespread potential visibility across the hills which extend to Wellow Park, approximately 4 km away; and
 - Potential visibility between solar areas and within the centre of the study areas is widespread. The ZTV indicates that a greater extent of the solar areas would be potentially visible on land between adjacent panel areas and on hills and ridgelines within the central undeveloped area between the solar areas.
- 115 Figure 7.1 [EN010162/APP/6.3.7.1] also shows the extent of theoretical visibility for the BESS and the 400 kV substation. The main area of visibility would occur immediately around the BESS and 400 kV substation to Kelham and Averham in the east, and Micklebarrow Hill in the west, both approximately 1 km away; it would extend further in the south to Rolleston approximately 3.5 km away. Theoretical visibility in the north would be almost completely screened by woodland and rising land within 900 m. Beyond the main area of theoretical visibility, potential visibility would generally be limited to the taller 400 kV substation except on areas of higher ground towards the edge of this extent where both elements of the Development would be visible.
- 116 In general, the ZTVs indicate that the BESS and 400 kV substation would be visible alongside solar areas in limited areas immediately around these elements of the Development where trees and topography screen the solar areas from view.

7.7.7 Viewpoint Analysis

- 117 Viewpoint analysis has been undertaken from 55 viewpoints. The final list of viewpoints for the PEIR was prepared following scoping consultation. For details of the viewpoint locations suggested for inclusion at the scoping stage but excluded from analysis, and the rationale, see Table 7.1 above. The viewpoints were further refined via consultation following the PEIR as set out in Table 7.1 above, with changes including:
- Additional viewpoints (50-55) in response to consultee requests;
 - Moved viewpoints (15, 26-28, 30 and 35) in response to consultee requests and/or to new locations with better visibility following design changes;
 - Omitted viewpoints (11, 12, 19-25, 36, 39-43 and 47) due to being beyond the agreed 2 km study area and/or due to lack of visibility arising from design changes.
- 118 In order to retain traceability, viewpoints were not renumbered, and Figure 7.1 [EN010162/APP/6.3.7.1] shows those viewpoints omitted from consideration in the ES.
- 119 Table 7.5 below provides a summary of the scale and nature of the changes to views at each viewpoint where the scale of change was greater than

Negligible. Where effects are indicated to reduce, the lower scale of effects relates to the period after mitigation planting has matured to the design height and density. Viewpoints where the scale of effects would be Negligible are tabulated in TA A7.4 [EN010162/APP/6.4.7.4].

¹²⁰ The viewpoint locations are shown on Figures 7.1-7.10 [EN010162/APP/6.3.7.1-10]. Visualisations are provided for viewpoints 1 – 55 (if included in the analysis, see above) in Figure 7.11 [EN010162/APP/6.3.7.11].

Table 7.5: Viewpoint Analysis Summary – non-Negligible Scale effects

No.	Viewpoint	Distance	Scale and nature of change
01	Robin Hood Way near Eakring	1.0 km	Small, Adverse reducing to Small/negligible, Adverse
04	Panoramic Viewpoint near Maplebeck	0.3 km	Small, Adverse
05	Maplebeck	0.4 km	Medium, Adverse
06	Kersall	0.3 km	Small/negligible, Adverse
07	A616 near Kersall Lodge	0.1 km	Large, Adverse, reducing to Medium, Neutral
08	Footpath at Kneesall	1.5 km	Small/negligible, Adverse
09	Minor road - Eakring to Kneesall	0.7 km	Small/negligible, Adverse
13	Moorhouse	0.5 km	Small/negligible, Adverse, reducing to Negligible, Neutral
15	A1 layby south of Weston	0.8 km	Medium, Adverse, reducing to Medium/small, Adverse
26	Bridleway north of Caunton	0.4 km	Medium, Adverse
27	Micklebarrow Hill	0.8 km	Medium/small, Adverse
28	Local Road north of Upton	1.1 km	Small, Adverse
29	Hockerton	0.8 km	Small, Adverse
30	Footpath near Knapthorpe	0.1km	Medium, Adverse reducing to Small/negligible, Neutral
33	Road west of Ossington	0.0 km	Large, Adverse, reducing to Medium, Neutral

No.	Viewpoint	Distance	Scale and nature of change
34	Minor road near Park Lidget	0.3 km	Medium, Adverse reducing to Small, Adverse
35	Norwell	0.7 km	Small/negligible, Adverse reducing to Negligible, Neutral
38	Footpath near Flash Farm	0.3 km	Large, Adverse
45	Averham	0.8 km	Small, Adverse
46	Footpath SW of Maplebeck	0.2 km	Large, Adverse, reducing to Medium, Neutral
48	Ossington Road	0.0 km	Large, Adverse reducing to Medium, Adverse
49	A617 layby near Flash Farm	0.5 km	Medium, Adverse reducing to Small, Adverse
50	Footpath near Park Farm	1.1 km	Medium, Adverse
51	Footpath near Beesthorpe Hall	0.8 km	Small, Adverse
53	Hagg Lane	0.2 km	Small, Adverse, reducing to Small/negligible, Adverse
54	Eaves Lane, Sutton on Trent	0.9 km	Small, Adverse
55	Ossington Lane near The Grange	0.0 km	Large, Adverse reducing to Medium/small, Adverse

7.7.8 Outcomes

¹²¹ Each of the viewpoints is a ‘sample’ of the potential effects, representing a range of visual receptors including people at the viewpoint and nearby, at a similar distance and/or direction. From the ZTV and viewpoint analysis it can be seen that, before mitigation planting has matured, changes to views would arise as follows:

- The extent of Large scale and Large/medium visual changes, where the Development would form a major alteration to key elements, features, qualities and characteristics of the view such that the baseline would be fundamentally changed, would generally be limited to locations within 0.2 km where there would be a particularly open and/or elevated view of the solar panels, substations or BESS (the Development);
- Medium and Medium/small scale changes to views would typically arise within up to 0.5 km– extending to 0.8 km at Micklebarrow Hill and 1.1km on rising ground between Eakring, Kersall and Kneesall, where there

- would be particularly open, elevated views of the Development in more than one direction; and
- Small and Small/negligible scale changes to views would typically arise within up to 1.1 km – extending to 1.5 km for particularly open elevated views which look out onto facing slopes occupied by the Development (such as at Viewpoint 8 near Kneesall).
- 122 Following the establishment of mitigation planting (i.e., after 7-10 years), the majority of Large scale changes to views would be reduced to Medium scale or lower, with Large scale changes to views remaining only from those footpaths which pass through fields occupied by solar areas, and Viewpoint 38 near Flash Farm which has close, elevated views over the 400 kV substation and BESS.
- 123 The ZTV and viewpoint analysis also inform the consideration of effects on character. Typically, the scale of change to character at a particular location would be slightly less than the changes to views, as character derives from a more holistic experience of the landscape, not just views. The degree to which a proposal changes character depends on a combination of:
- The degree to which it is ‘in keeping’ with the existing character;
 - Proximity and visibility; and
 - The importance of views towards land within the Order Limits to the existing character.
- 124 These factors vary by character area and type and are considered below.

7.7.9 Effects on Landscape Character

7.7.9.1 Introduction

- 125 As shown by Figures 7.3 [EN010162/APP/6.3.7.3] and 7.4 [EN010162/APP/6.3.7.4], the solar panels and potential substation locations would be mostly located within the Village Farmlands with Ancient Woodlands LCT in the Mid-Nottinghamshire Farmlands RCA; with some of the easternmost parts of the project within the Village Farmlands LCT in the Trent Washlands RCA. In places, typically where LCT boundaries divide larger fields, panel areas/substation areas extend into the adjacent Meadowlands / River Meadowlands LCTs.
- 126 Effects on landscape character would arise on host areas due to the physical presence of the Development and in areas of visibility as a result of the Development changing the perception of character and the nature of characteristic views. Figure 7.4 [EN010162/APP/6.3.7.4] shows the visibility of the panels would be mostly confined to the host LCTs and adjoining Meadowlands / River Meadowlands LCTs, along with the Village Farmlands LCT in the Mid-Nottinghamshire Farmlands RCA around Hockerton and Southwell. Effects on these LCTs and RCAs are considered in detail below.
- 127 There would be patchy visibility from the Mid-Nottinghamshire Farmlands character area in Bassetlaw at distances of 1 km or more from the Development, with some open, elevated views of the Development as illustrated by Viewpoint 52. However, all of these areas of visibility are close

to the consented Tuxford Road solar farm as illustrated by Figure 7.4 [EN010162/APP/6.3.7.4]. It is considered that in this context, further changes to character as a result of distant views of the Development would be Negligible and the LCT is not considered further.

- 128 Descriptions for each of the assessed character areas/types are provided below, based on review of the baseline documents discussed in Section 7.5.2.

7.7.9.2 Sensitivity of Landscape Character Types and Areas

129 Landscape Value

- 130 TA A7.3 [EN010162/APP/6.4.7.3] provides analysis of the susceptibility of the individual landscape character types and landscape value within the study area. This identifies the landscape within most of the study area as being Regional/community value, taking account of some indicators of higher landscape value in relation to heritage features such as villages with Conservation Areas and the Historic Landscape at Laxton; the relatively good condition of the landscape; pleasant scenery; Ancient Woodlands and opportunities for recreation – within an otherwise ‘everyday’ farming landscape.

- 131 As set out in TA A7.3 [EN010162/APP/6.4.7.3], there is increased prevalence of indicators of landscape value in the Sherwood RCA, which is judged to be of Regional value.

132 Susceptibility

- 133 The susceptibility of the landscape character types to change as a result of solar development is identified as ranging between Medium/low and High/medium. The assessment below refers to TA A7.3 [EN010162/APP/6.4.7.3] in providing sensitivity judgements.

7.7.9.3 Mid-Nottinghamshire Farmlands / Village Farmlands with Ancient Woodlands (includes Development)

134 Baseline Description and Sensitivity

- 135 As shown on Figure 7.3 [EN010162/APP/6.3.7.3], this character type forms most of the rural area between Hockerton and Tuxford, with an additional small area to the west of Southwell. The baseline character is described in the Newark & Sherwood Landscape Character Assessment (NSLCA), as being “a varied undulating arable landscape characterised by remnant ancient woodlands and small rural villages.” The key characteristics are identified as:

- *“Varied undulating topography*
- *Ancient woodlands, often prominently sited on hill tops*
- *Well-defined pattern of hedged fields*
- *Streams defined by lines of trees and permanent pasture*
- *Traditional pattern of farms and small rural villages*
- *Red brick buildings with pantile roofs*
- *Quiet country lanes*

- *Small remnant orchards and permanent pastures around villages”.*
- 136 As shown by Figure 7.3 [EN010162/APP/6.3.7.3], the separate but associated Meadowlands LCT threads through this LCT and in many cases the ‘streams defined by lines of trees and permanent pasture’ that are identified as one of the key characteristics of the Village Farmlands with Ancient Woodlands are within the Meadowlands LCT. The existing Egmonton Solar Farm is located in the northern part of this LCT, between Egmonton and the A1. Winkburn, Knapthorpe Lodge and Muskahm Wood solar farms will also be within this LCT once constructed.
- 137 TA A7.3 [EN010162/APP/6.4.7.3] provides an analysis of the susceptibility of these characteristics to change as a result of solar development, identifying most as having Medium susceptibility. High susceptibility is identified in relation to the traditional farms and villages, and lower susceptibility in relation to the Ancient Woodland and building materials given these physical features are not affected by solar development. Taking all of the characteristics into account susceptibility is considered to be Medium.
- 138 Considering the Regional/community landscape value and susceptibility together, sensitivity for this LCT is judged to be Medium.
- 139 *Effects During Construction and Early Operation*
- 140 As shown by Figure 7.4 [EN010162/APP/6.3.7.4] and viewpoints 1-10, 15-16, 26, 30-34, 37-38, 46 and 48, the Development would occupy small groups of fields spread across the centre, south and east of the LCT. There would be Large scale changes to character as a result of the presence of the solar panels, Intermediate Substations and other infrastructure within the Development. There would also be some localised improvements to the landscape condition arising from areas of ecological enhancement and new woodland planting – particularly around Maplebeck, and south and west of Norwell Woodhouse. Beyond the areas occupied by solar panels and/or substations, the scale of change to character would vary depending on visibility and proximity. Where there are open, close views (within approximately 0.2 km), the Development would be a very noticeable feature within the landscape and effects would be Medium scale, generally reducing to Small scale within 0.5 km (but extending to around 1 km in the cross valley views to the west of Kersall and northeast of Eakring) and Negligible beyond 0.5 km as the Development would increasingly be seen as a more recessive feature within the wider context of the existing character.
- 141 Due to the distribution of the Development across the LCT, people travelling across the LCT would experience repeated views of the panel areas and/or substations at a variety of distances which would create a close association between the experience of the landscape and the presence of the Development. As a result, despite there being notable areas of greater distance and more limited visibility – for example between Norwell, Caunton and Bathley – the Development would become a characteristic of the LCT in the area between Eakring, Weston and Kelham. Together with existing and consented developments, there would also be noticeable areas of renewables development within this LCT near Eakring, and around Weston,

Knapthorpe and Egmonton, affecting the southeast and northeast edges of the LCT.

- 142 Changes to character in the northwest part of the LCT around Kneesall, Laxton, Egmonton and Kirton would be Negligible scale, due to a combination of limited visibility and distance which would render the Development a small feature seen in the distance, along with pylons and other infrastructure seen in views to the east and southeast (e.g., viewpoints 8-10).
- 143 Taking account of the Large, Medium and Small scale changes to character across the south, centre and east of the LCT – a Wide extent, arising for a Medium-term duration, impacts on the LCT would be of Large/medium magnitude and effects would be **Major/moderate, Adverse and significant**.
- 144 *Effects During Operation and Decommissioning*
- 145 As planting matures during the operational stage, the landscape condition would continue to improve and the extent of visibility and scale of change in views towards the Development would reduce, but the effects on character would remain as assessed above.
- 146 *Effects After Decommissioning*
- 147 After decommissioning, the woodland planting, areas managed for ecological enhancement and new and gapped-up hedgerows would give rise to an Intermediate extent of Permanent, Small scale, Beneficial changes to the LCT. There would also be continued changes to character from the retention of Intermediate Substations and 400 kV substation which lies adjacent to the southern boundary of the LCT. In each case the changes to character would be Limited in extent, Small scale and Adverse as a result of mature planting largely screening views of the substation. Effects would be confined to the physical change to the fabric and character within the footprint of the substation and the signage and visibility arising around the entrances to the substation compounds. Considering these changes together, there would be impacts of Small magnitude and effects would be Minor, Neutral and not significant.

7.7.9.4 Other landscape character types and areas

- 148 Effects on other local landscape character types, and the regional and national character areas would not be significant. Effects are considered in TA A7.5 [EN010162/APP/6.4.7.5] and summarised below:
- **Trent Washlands / Village Farmlands (Includes Development)** – This LCT forms a broad north-south band within the study area, along the Trent. The baseline character is described in the NSLCA, as being “a flat low-lying agricultural landscape characterised by a traditional pattern of hedged fields and nucleated village settlements” and has a Medium sensitivity. The BESS, a small area of solar arrays near Carlton-on-Trent and ecological mitigation areas would be within the LCT, with some visibility close to these areas. Impacts would be of Medium magnitude and effects would be Moderate, Adverse and not significant during all

- stages of the Development prior to decommissioning and Minimal, Neutral and not significant after decommissioning;
- **Mid-Nottinghamshire Farmlands / Meadowlands LCT (includes Development)** – This LCT follows several water courses cutting through the Village Farmlands with Ancient Woodlands and Village Farmlands LCTs. The baseline character is described in the NSLCA as being “*flat, low-lying river corridor landscapes characterised by permanent pasture and riparian trees.*” and has a High/medium sensitivity. The Development would only be within this LCT within arable fields where the character is more akin to the adjacent LCT. Impacts would be of Medium/small magnitude and, taking account of the fact that the effects would primarily arise in lower sensitivity parts of the LCT, effects would be Moderate/minor, Adverse and not significant during all stages of the Development prior to decommissioning and Minimal, Neutral and not significant after decommissioning;
 - **Trent Washlands / River Meadowlands LCT (includes Development)** – This LCT forms a broad north-south band within the study area, along the Trent. The baseline character is described in the Newark & Sherwood Landscape Character Assessment SPD (NSLCA), as “*a flat low-lying riverine landscape characterised by alluvial meadows, grazing animals and remnant wetland vegetation.*” The LCT is judged to have Medium sensitivity. The Development would be within this LCT between the A617 west of Averham and close to the LCT to the northwest of Cromwell. Other proposed changes would include the management of small areas for ecological benefit between Bathley and Cromwell. The locations for proposed development would avoid the more sensitive river bluff slopes, except for the 400 kV substation which would be located on one of the shallower lower slopes. Impacts would be of Medium/small magnitude and effects would be Moderate/minor, Adverse and not significant during all stages of the development prior to decommissioning and Minimal, Neutral and not significant after decommissioning;
 - **Mid-Nottinghamshire Farmlands RCA (Includes Development)** - The majority of the RCA within NSDC is Village Farmlands (with or without Ancient Woodlands) and that character type continues northwards into Bassetlaw and southwards into Rushcliffe. The sensitivity of the RCA is judged to be Medium. In this wider context the effects of the Development would create a strong association of the more wooded Village Farmlands with Ancient Woodlands LCT between Hockerton and Egmonton with solar farms, giving rise to impacts of Medium magnitude. Effects would be Moderate, Adverse and not significant during all stages of the development prior to decommissioning and Minor, Neutral and not significant after decommissioning;
 - **Trent Washlands RCA (Includes Development)** – The RCA comprises an interwoven mix of Village Farmlands and Meadowlands LCTs and continues northwards into Bassetlaw and south into Rushcliffe. The sensitivity of the RCA is judged to be Medium (the same as for the more sensitive of the two host LCTs) given the similarities of the RCA character. In this wider context the effects of the Development would

give rise to changes to character in two discrete areas around the 400KV substation and BESS west of Kelham, and near the solar arrays to the southwest of Cromwell giving rise to impacts of Medium/small magnitude. Effects would be Moderate/minor, Adverse and not significant during all stages of the development prior to decommissioning and Minimal, Neutral and not significant after decommissioning; and

- **NCA 48 Trent and Belvoir Vales (Includes Development)** – NCA 48 is a large national character area and plays host to many energy developments including former coal fired power stations, Staythorpe power station, and solar farms including the recently consented Cottam Solar Farm (DCO/NSIP). In this context the non-significant effects on the RCAs identified above would be a further localised continuation of the character area's association with energy projects and would not be significant.

¹⁴⁹ Effects on the following character areas / types are assessed to be negligible for the reasons described below or within TA A7.5 [EN010162/APP/6.4.7.5]:

- Mid-Nottinghamshire Farmlands / Estate Farmlands with Plantations (1.1 km, west) due to lack of visibility within the study area as shown by Figure 7.4 [EN010162/APP/6.3.7.4];
- Bassetlaw - Mid Nottinghamshire Farmlands (1.1 km, north) due to distant areas of visibility coinciding with close views of Tuxford Road solar farm as shown by Figure 7.4 [EN010162/APP/6.3.7.4]; and
- Mid-Nottinghamshire Farmlands / Village Farmlands (0.1 km, south).

7.7.10 Visual Effects

7.7.10.1 Introduction

¹⁵⁰ Three types of visual receptors are considered within this assessment:

- Groups – Based around settlements or rural areas and representing effects on the community within public spaces including streets and local recreational routes in that place. Views from groups of homes may also be noted in the descriptions, but as noted at section 7.3.10, effects on these are a separate matter;
- Routes – Users of longer distance transport and recreational routes through the study area; and
- Specific viewpoints – Visitors to locations which are recognised and valued for the views available.

¹⁵¹ The receptor groups and routes considered are illustrated on Figure 7.5 [EN010162/APP/6.3.7.5]. The only candidate specific viewpoint in the study area is the Millenium viewpoint approximately 1 km southwest of Maplebeck, however the baseline visibility in that area (tall roadside hedgerows and restricted outward views) indicates that it is presently unlikely to be visited in order to enjoy the view and it is not considered as such in this assessment.

¹⁵² Unless otherwise stated, views are considered to be of Community value unless they lie within a Conservation Area or the Historic Landscape around Laxton; views from these designated areas are considered to be of

Regional/community value as the Development may distract from the features for which they are designated.

- 153 Road users on longer distance routes are considered to have a Medium susceptibility and a Medium sensitivity to changes in views. Users of recreational routes, or those living in or visiting settlements are considered to have a High susceptibility and a High/medium sensitivity to changes in views, with that also extending to local roads near their home which may be used for recreation as well as driving.

7.7.10.2 Approach

- 154 For this assessment the following approach has been taken:

- Where effects are judged to be significant based on the initial assessment full detail is provided below;
- Where effects are judged to be Moderate, full detail is provided in TA A7.5 [EN010162/APP/6.4.7.5]; and
- Where effects are judged to be lower than Moderate, a summary is provided in TA A7.5.

- 155 The scale of changes to views on Public Rights of Way (PRoW) and roads is illustrated on inset plans for each visual receptor (settlement or group). The inset plans are extracts from Figure 7.6 [EN010162/APP/6.3.7.6], which illustrates scale of change to views on completion and prior to growth of mitigation planting, and Figure 7.7 [EN010162/APP/6.3.7.7] which illustrates scale of change to views after growth of mitigation planting, although the areas of visibility shown have not included modelling of the proposed planting and show the unmitigated extent of visibility, given that visibility above and through hedges would remain in some places in the longer term. The key to the inset plans is the same as provided on the Figures which also show the areas for each of the visual receptor groups considered below.

- 156 The inset plans and Figures are provided to illustrate the text by showing the approximate extent and location of changes to views, and in reality, effects on site may change more gradually (for instance as a route moves closer to a part of the Development in open view), or abruptly (for instance as a route moves around the edge of woodland and previously screened development becomes openly visible). Views from a number of routes are mostly screened with only occasional open views through field gates and openings. Where this arises, the visibility pattern is written about in the text but the views from field gates are not illustrated by the inset plans.

7.7.10.3 Group A: Between Micklebarrow Hill and Kelham

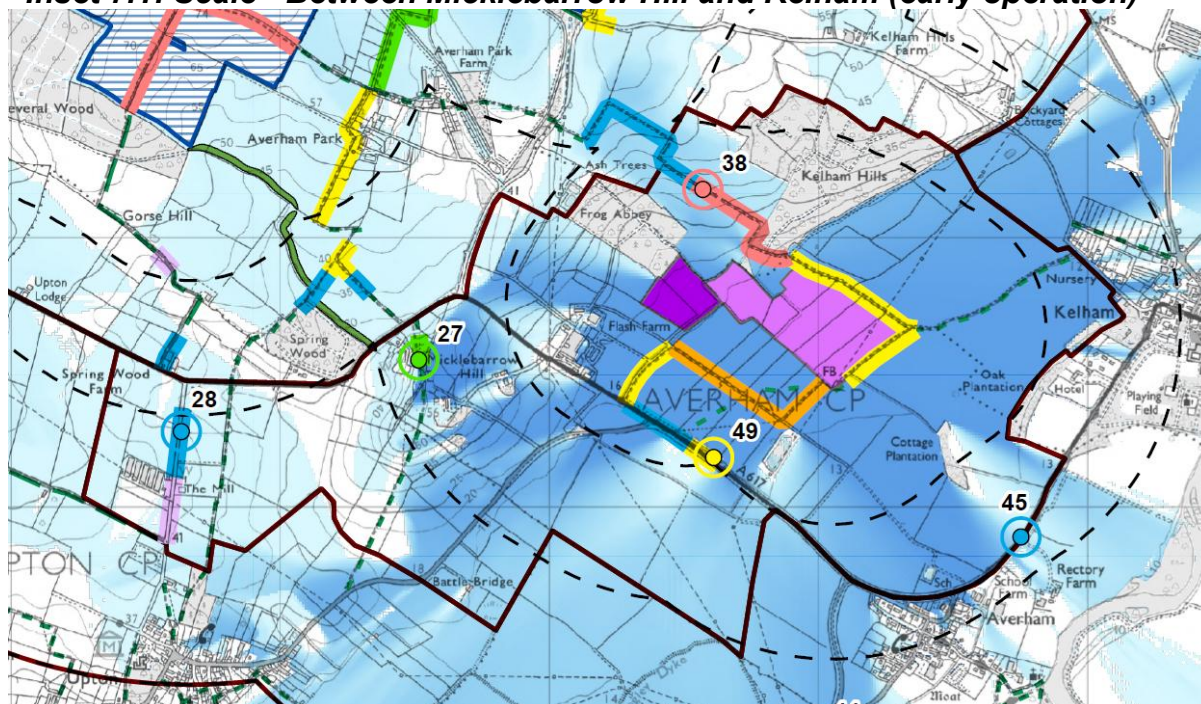
157 Baseline

- 158 This receptor group includes Micklebarrow Hill; footpaths across the fields between Kelham, the A617 and woodlands to the northwest, and Main Street/main Road which connects Upton to the A617. The eastern part of this area is flat, with land rising to the woodlands and Micklebarrow Hill to the west and south.

159 *Effects During Construction and Early Operation*

- 160 As shown by Inset 7.1 below, footpaths in this area connect Kelham to the A617 and near Flash Farm and to Broadgate Lane. These routes would all pass close to the 400 kV substation and BESS areas. There would be elevated and increasingly open views of the BESS and the substation and the scale of change to views would increase from Small scale to Large scale heading east on the footpath from Broadgate Lane, as illustrated by viewpoint 38. There would be limited visibility heading south from Kelham until reaching adjacent to the BESS area as existing tall hedgerows in this area largely screen southward views. Walking alongside the north edge of the BESS area there would be close views through the hedge, particularly in winter, giving rise to Medium scale changes to views.
- 161 Walking north from the A617, the substation would be partly screened by the adjacent hedge, but the BESS area would be openly visible, giving rise to Medium scale changes to views, which would increase to Large/medium scale as the route moves closer to the BESS area, reducing to Medium as it passes to the east where an existing hedgerow would filter views.
- 162 Open elevated views towards solar panels to the west and the main substation and BESS would be seen from a short stretch from the footpath over the top of Micklebarrow Hill as shown by viewpoint 27, giving rise to Medium/small scale changes to views. From the top of the hill, there would be views towards the substation and BESS seen through trees.
- 163 Large to Medium scale, Medium-term changes to views would arise for a Wide extent of the footpaths in this area - north of the A617. The magnitude of impact would be Large/medium and effects would be **Major/moderate, Adverse and significant**.
- 164 There would be a short stretch of aligned views towards solar arrays on higher ground from the local road north of Upton where a Limited extent of Small to Small/negligible scale changes to views would arise for northbound road users as illustrated by Viewpoint 28. There would be little or no visibility from Main Street/Main Road and impacts on other local road users in this area would be Negligible magnitude and effects would be Minimal, Neutral and not significant.

Inset 7.1: Scale - Between Micklebarrow Hill and Kelham (early operation)



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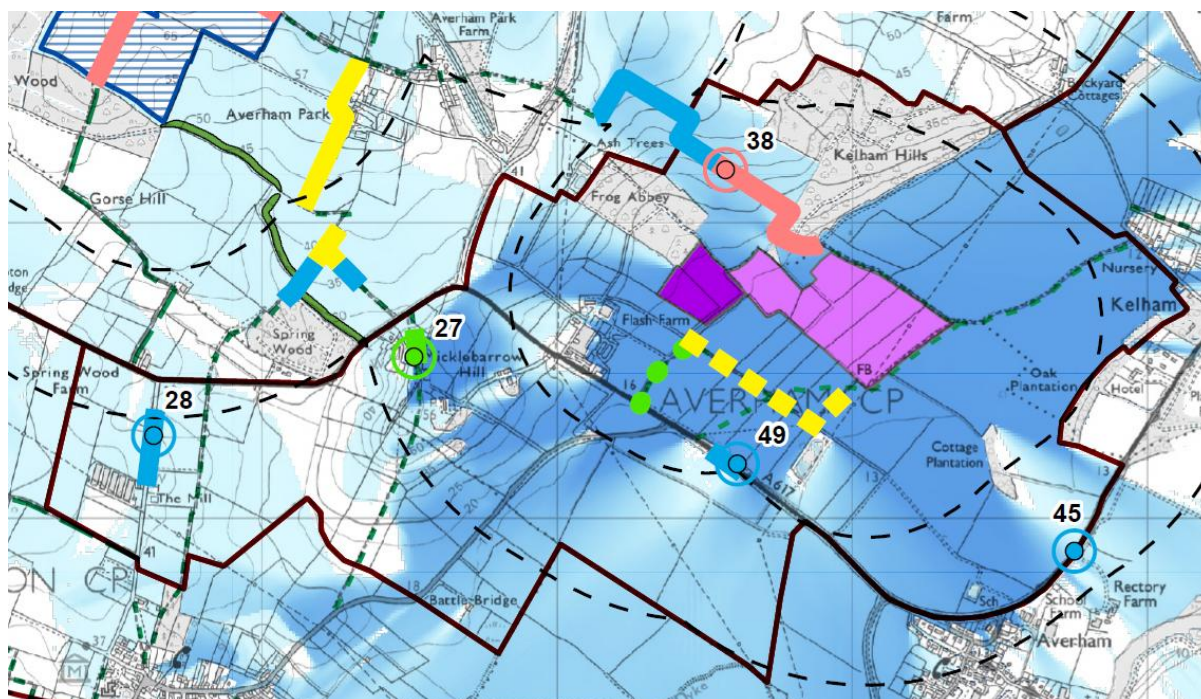
165 ***Effects During Operation and Decommissioning***

166 As shown by Inset 7.2 below mitigation planting would not reduce the scale of change to views from the local road north of Upton or the hillsides around viewpoint 38 and viewpoint 27 on Micklebarrow Hill. In these aligned and elevated views visibility of the Development would remain largely the same as during early operation, albeit with the appearance altered by mature vegetation around the boundaries. From the low-lying routes north of the A617 near Flash Farm, views would change to include mature hedges and tree belts and this alteration of the currently open views would give rise to Medium and Medium/small scale, Neutral changes to views. Effects elsewhere would reduce to Negligible as views of the Development would be screened by the gapped up, thicker hedges.

167 The extent of Permanent Large and Medium scale changes to views would be reduced to Localised. The magnitude of impact would be Medium and effects would be **Major/moderate, Adverse and significant** taking account of the particularly close and elevated views of the Development from Kelham Hills near viewpoint 38.

168 Effects on road users on Main Street/Main Road would continue to be **Minimal, Neutral and not significant.**

Inset 7.2: Scale - Between Micklebarrow Hill and Kelham (post-mitigation)



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169 ***Effects After Decommissioning***

170 The BESS would be decommissioned, but the 400 kV substation is assessed as being retained and would continue to be visible from parts of the Kelham Hills footpath (near viewpoint 38) where it would give rise to Permanent Medium/small scale changes to views; and from Micklebarrow Hill where it would give rise to a Limited extent of Small scale changes to views. Changes to views from the footpaths near Flash Farm would continue as a result of the enclosure by hedges and would be Medium to Medium/small scale. Considering these effects together, Medium to Small scale changes to views would arise to a Localised extent on the footpaths in this area. Impacts would be of Medium/small magnitude and effects would be Moderate, Adverse and not significant.

171 There would no longer be visibility of solar arrays from the local road north of Upton and effects on road users /would continue to be Minimal, Neutral and not significant.

7.7.10.4 Group B: Caunton to A617 (includes Development)

172 ***Baseline***

173 This receptor group encompasses the undulating rural landscape between the A616 and A617 between Little Carlton, Caunton and Hockerton. The area is gently undulating with valleys formed by streams. There is a network of Public Rights of Way with a mix of open, elevated views and sections

which are enclosed by woodland, hedges and/or higher ground, as shown by viewpoints 27 (which looks north towards this area), 29 and 30 (which are within this area). Local roads in this area run between Caunton and Hockerton, and connect the two main roads past Averham Park Farm and to Kelham. These roads are typically enclosed by high hedges with occasional views into fields through field gates. There are two consented solar farms in this area near Knapthorpe as shown by Figure 7.5 [EN010162/APP/6.3.7.5].

- 174 Properties in this area that are within 250 m of the solar panels and/or substations are considered within the RVAA at TA A7.6 [EN010162/APP/6.4.7.6]. Those at greater distance would experience similar effects to those described for adjacent roads and/or PRow.
- 175 *Effects During Construction and Early Operation – PRow users*
- 176 As shown by Inset 7.3 below, some PRow pass through or adjacent to panel areas. For routes that pass through panel areas or alongside panel areas where views would initially be open (Averham Park Farm to Cheveral Wood and Park Leys; the diverted footpath between Averham Park Farm and Muskham Wood Farm; footpaths including the proposed diversion to the north and west of Park Leys Farm; east of Muskham Woodhouse Farm), the scale of change to views would be Large as a result of the close views of the fencing, solar panels and other infrastructure.
- 177 The routes heading southwards from Averham Park Farm and Cheveral Wood, and northwards from Averham Park Farm would have short stretches of open views towards solar panels in nearby fields on rising ground to the west, giving rise to Medium to Small scale changes to views. Medium to Small scale changes would also arise from the route east of Muskham Wood solar Farm and the short section of footpath across the open field south of Knapthorpe as a result of views towards panel areas to the south, in conjunction with close views of solar arrays within Muskham Wood solar farm. A short section of the bridleway south from Park Leys Farm would also experience Small scale changes to views where the panels directly to the east would be screened by the existing hedge, but another area of solar panels would be seen in lower-lying fields looking northwest towards Park Spring Farm.
- 178 The bridleway southeast from Park Leys is lined with tall hedges to both sides and the solar panels would not be visible, except for close views through the few field gates. The routes in the north of this receptor group closer to Caunton and Knapthorpe would either be within or would have closer views of the consented solar farms and changes to views as a result of the Development (if visible) would be of Negligible scale. There would also be Small scale changes to views on the footpath north of the stream valley near Choulers Gorse as a result of views of the tops of solar panels to the west over existing hedges.
- 179 Considering these effects together, most people using footpaths and bridleways in this area would have close views of the Development at one or more points along their route, except between Caunton and Knapthorpe.

Before proposed planting matures, Large to Medium scale Medium-term effects would arise for an Intermediate extent of the receptor group, giving rise to a Large/medium magnitude of impact. Effects would be **Major/moderate, Adverse and significant.**

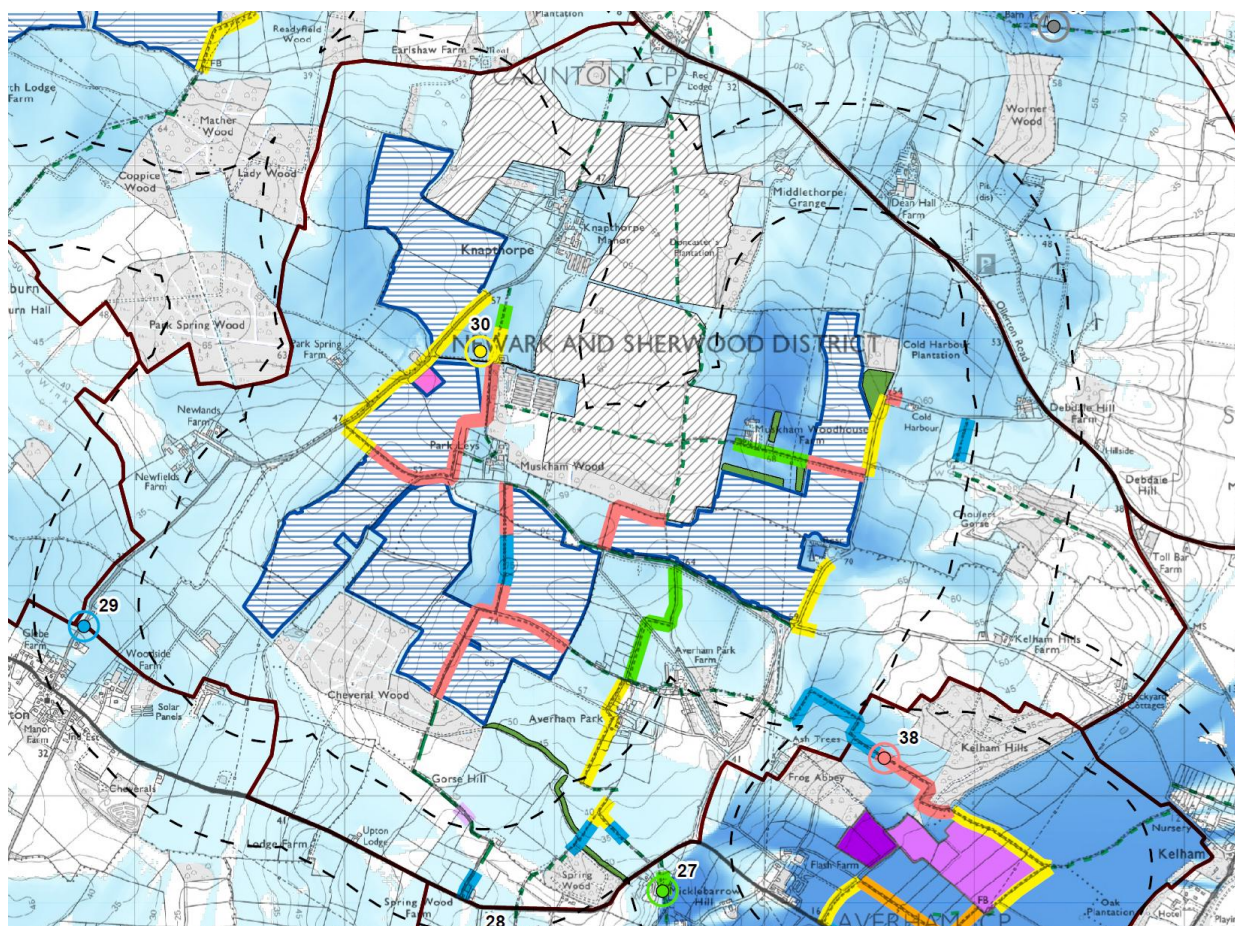
180 *Effects During Construction and Early Operation – road users*

181 Effects on local road users would be limited by roadside hedges to occasional views through field gates and more extensive visibility from:

- Caunton Road between Knapthorpe Manor and near Park Spring Farm (except when passing the Bedmax plant where taller roadside vegetation largely screens views), where solar panels and the Intermediate Substation would be seen over roadside hedgerows and effects would be Medium scale until hedges mature; and
- The unnamed road running north-south between Broadgate Lane and the A616 near Dean Hall Farm where changes to views would be Medium scale as the road passes the panel areas due to views through and over hedges of solar panels on rising ground. Around the junction near Cold Harbour a connecting local road would have Large scale changes to views where there are more elevated views into a panel area for road users approaching the junction from the east.

182 Considering these together, Medium-term changes to views during early operation for local road users in this receptor group would arise for a Limited extent of the road network and the magnitude of impact would be Medium/small. Taking into account the High/medium sensitivity of local road users, effects would be Moderate, Adverse and not significant.

Inset 7.3: Scale - Caunton to A617 receptor group (early operation)



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183 ***Effects During Operation and Decommissioning – PRow users***

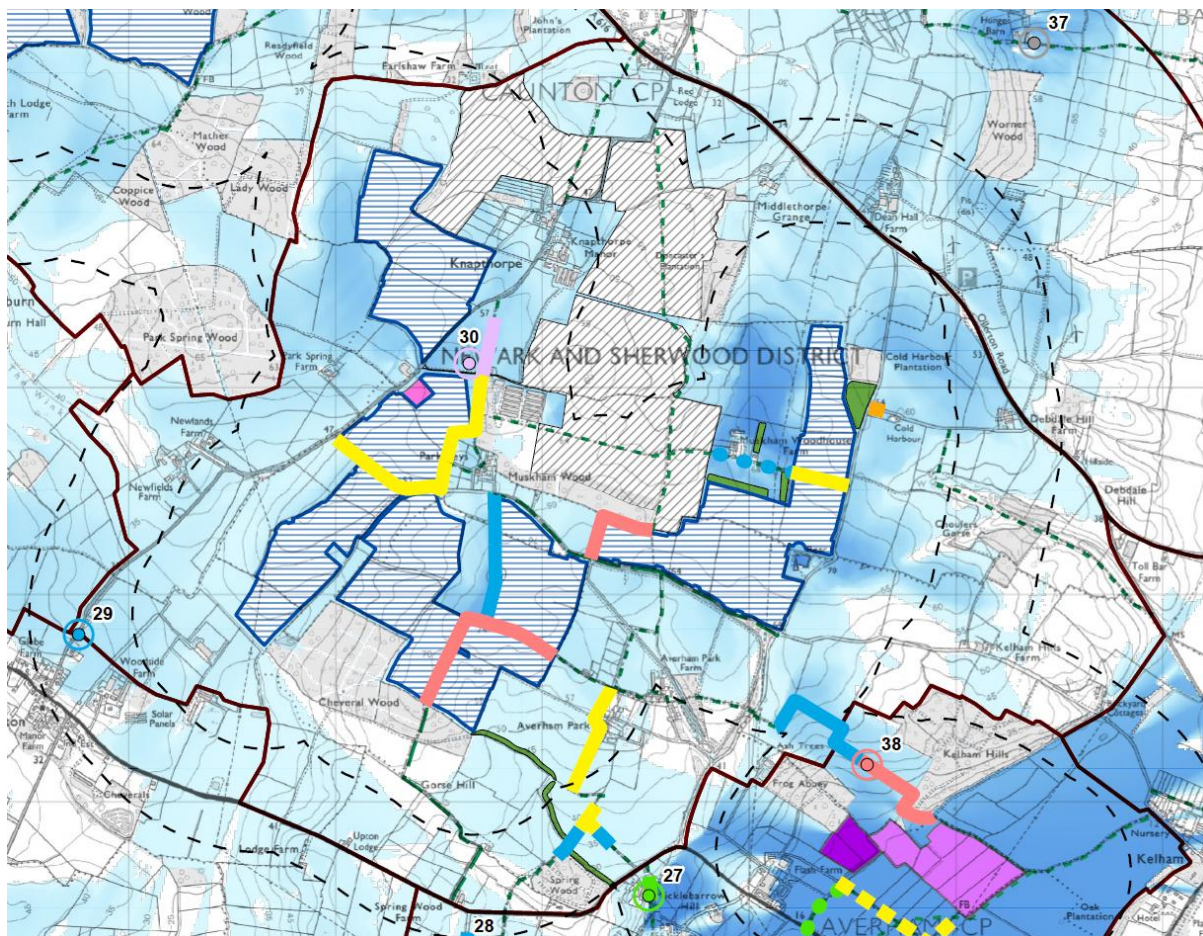
184 As shown by Inset 7.4 below, once proposed mitigation planting of hedges and woodland has matured to screen the adjacent panels, effects would remain Large scale and adverse for the routes west of Averham Park Farm where the proposed hedges would block currently open elevated outlooks to the west and south. Where hedges would fully enclose routes which are currently open to one or both sides (west and north of Park Leys Farm; the diverted footpath between Averham Park Farm and Muskhams Woodhouse Farm and the footpath east of Muskhams Woodhouse Farm), changes to views would reduce to Medium scale and Adverse.

185 Views south from the footpath past Muskhams Woodhouse Farm would look across the nearby field towards maturing woodland and changes to views would be Small scale and Neutral. For the bridleway south of Park Leys, only the more distant panels to the northwest would be visible and changes to views would reduce to Small scale and Adverse. Changes to views from the short section of footpath across the open field south of Knappthorpe and the footpath near Chouler's Gorse would reduce to Small/negligible scale as the

panels would be largely screened by hedges, with some visibility remaining of the solar panels to the west above the roadside hedges.

- 186 For other routes (south of Averham Park Farm and between Park Leys and Muskham Woodhouse Farm), the solar panels would remain visible over the enclosing hedges due to elevated views towards solar areas, or views looking towards panels on rising ground.
- 187 Once proposed planting matures, Permanent Large to Medium scale changes to views would arise for a Localised extent of the receptor group with the majority of those effects being Medium scale, giving rise to a Medium magnitude of impact. Effects would be **Major/moderate, adverse and significant**.
- 188 *Effects During Operation and Decommissioning – road users*
- 189 The combination of existing roadside hedgerows within the Order Limits and proposed planting maturing would largely screen views for local road users within this group with only very occasional glimpses of the Development possible, such as the very short section of road west of Cold Harbour. The slight increase in the enclosure of the roads passing the Development by new and taller hedgerows would not be atypical of the area or particularly noticeable.
- 190 Permanent changes to views for local road users in this receptor group would affect a very Limited extent of the local road network and the magnitude of impact would be Negligible. Taking into account the High/medium sensitivity of local road users, effects would be Minimal, Neutral and not significant.

Inset 7.4: Scale - Caunton to A617 receptor group (post-mitigation)



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191 **Effects After Decommissioning**

192 After decommissioning, for users of PRow, the taller hedges would remain and the main changes to views would be the continued enclosure of views where they are presently open. Permanent Large and Medium scale changes to views would arise for a Localised extent of the receptor group – with the changes being Adverse where an open, elevated outlook would be screened and Neutral elsewhere. The magnitude of impact would be Medium and effects would be Moderate, Adverse and not significant.

193 After decommissioning the taller hedges would remain along roadsides but would not be experienced as a noticeable change to views by road users given that roadside hedges are the norm in this area and the sections of increased hedge heights would not block key views or notably open outlooks. The Permanent scale of change to views would be Negligible for a Limited extent of the local road network. The magnitude of impact would be Negligible and effects would be Minimal, Neutral and not significant.

7.7.10.5 Group C: Between Caunton, Eakring and Kneesall (Includes Development)

194 *Baseline*

195 This receptor group encompasses the rural landscape between Caunton, Eakring and Kneesall, extending southwards to the valley between Dilliner Wood and Park Spring Wood. The valley between Eakring and Caunton has more steeply sloped sides around Kneesall and Maplebeck. The turbines and pylons near Eakring are frequently seen in the western part of this area. There is an extensive network of rights of way in this area. The local road network is mostly enclosed by hedges, but occasional more open views arise where hedges are not present and towards areas of higher ground – most notably between Eakring and Maplebeck. These roads are typically enclosed by high hedges with occasional views into fields through field gates. Viewpoints 4, 8,9, 50 and 51 are located within this area.

196 Properties in this area that are within 250 m of the solar panels and/or substations are considered within the RVAA at TA A7.6 [EN010162/APP/6.4.7.6]. Those at greater distance would experience similar effects to these described for adjacent roads and/or PRow.

197 *Effects During Construction and Early Operation – PRow users*

198 As illustrated by Inset 7.5 below, before planting matures, Large scale changes to views would arise for users of rights of way east of Eakring, where routes would be diverted and/or would run alongside panel areas with open views of the solar panels./m Changes to views from these routes would decrease to Medium scale with distance. Medium scale changes to views would also arise from the footpath which crosses fields to the northeast of Eakring, which would have open views towards solar panels on facing slopes to the south.

199 Large scale changes to views would arise for users of the routes near Parkhill plantation. Open, elevated views to the north would be retained from these routes, but there would be close views of the Development to the south. Large scale changes to views would also arise for users of the footpath extending southwest from Maplebeck, as illustrated by viewpoint 46, where there would be views of newly planted woodland and fencing in front of more distant solar panels. Large scale changes to views would continue along the bridleway to the south which leads to Hagley's Plantation. Here, open views to the north would be blocked by solar panels seen at close proximity. To the southeast, the scale of change to views from the bridleway would reduce with increasing distance from the solar panels.

200 South of Maplebeck, users of the footpath extending between minor roads that lead to North Lodge Farm would experience a Large scale change to views as they pass alongside solar panels which would reduce to Large/medium scale as the route drops downhill to the north and rising ground would partially screen the solar panels from lower sections of the route.

- 201 Medium scale changes to views would arise for users of rights of way to the north and east of Maplebeck. The route heading north towards Kersall would have elevated views of the solar panels east of Kersall, seen along the upper valley side which forms the skyline to the north. The footpath heading northwest from the village would have open views towards newly planted woodland and fencing, and solar panels on higher ground as it ascends towards the Development, giving rise to Medium scale changes to views. The route heading northeast from Maplebeck Road before turning towards Beesthorpe Hall Farm would have relatively open views of panels rising along the valley sides to the south, partially screened or filtered by vegetation in some sections giving rise to a Medium scale change to views; panel areas to the north of this route would be largely screened by rising ground and existing hedgerows. As this path rises for a short section to the west of Beesthorpe Hall Farm, views become more open and the scale of change to views would increase slightly to Large/medium for a short section. Past Beesthorpe Hall Farm, the route passes through trees and woodland for a stretch where there would be no views before emerging into the open fields east of Beesthorpe Hall where Small scale changes to views would arise, as illustrated by Viewpoint 51. Medium scale changes to views would also arise from the footpath between Readyfield Farm and Winkburn as it passes alongside a solar panel area which would be visible through branches in winter and above the hedge.
- 202 From the footpath between Kneesall and Penny Pasture Nature Reserve, changes to views would arise as a result of solar areas seen across the valley to the south, near Parkhill Plantation, and southwest towards Eakring from more elevated sections of the route, as illustrated by Viewpoint 50. These changes would be Medium scale reducing to Small and Small/negligible scale with distance and at lower elevations.
- 203 For users of routes radiating from Kersall, changes to views would be of Medium/small scale at most, and more commonly Small to Small/negligible scale and would generally occur from short, intermittent sections of routes. Visibility from these routes would be limited to views of solar panels on the skyline to the east of Kersall and/or more distant views of the panel area to the southeast of Maplebeck on facing slopes to the south; and from Mill Lane, where solar panels would be seen over hedgerows to the south and the Mill Lane Intermediate Substation would be partially visible for users heading east.
- 204 The eastern end of Mill Lane, which passes through Cocked Hat Plantation, is heavily overgrown and is not currently passable. The byway would be rerouted along a new access track running parallel but outside the plantation to the south as part of the Development. This would re-open the route and there would be close, open views of the substation and solar areas it passes, giving rise to Large scale changes to views.
- 205 Some rights of way in this area which are more distant from the Development would have visibility of the Development from open, elevated

sections of the routes. This would give rise to Medium/small to Small/negligible changes to views from:

- The footpath between Leyfields and Eakring;
- The footpath east of Leyfields, and
- The footpath between Beesthorpe Farm and Caunton.

206 Considering these effects together, Medium-term changes to views would be Large to Medium scale for a Wide extent of the right of way network in the south of this area, to the east of Eakring and around Maplebeck. These changes would give rise to impacts of Large/medium magnitude and effects would be **Major/moderate, adverse and significant**.

207 Effects on routes in the north of this area around Kersall and Kneesall would be Medium/small to Small/negligible scale for a Wide extent of the PRoW network, with a Limited extent of Medium scale changes from the footpath north of Penny Pasture. Impacts would be of Small magnitude and effects would be Moderate/minor, Adverse and not significant.

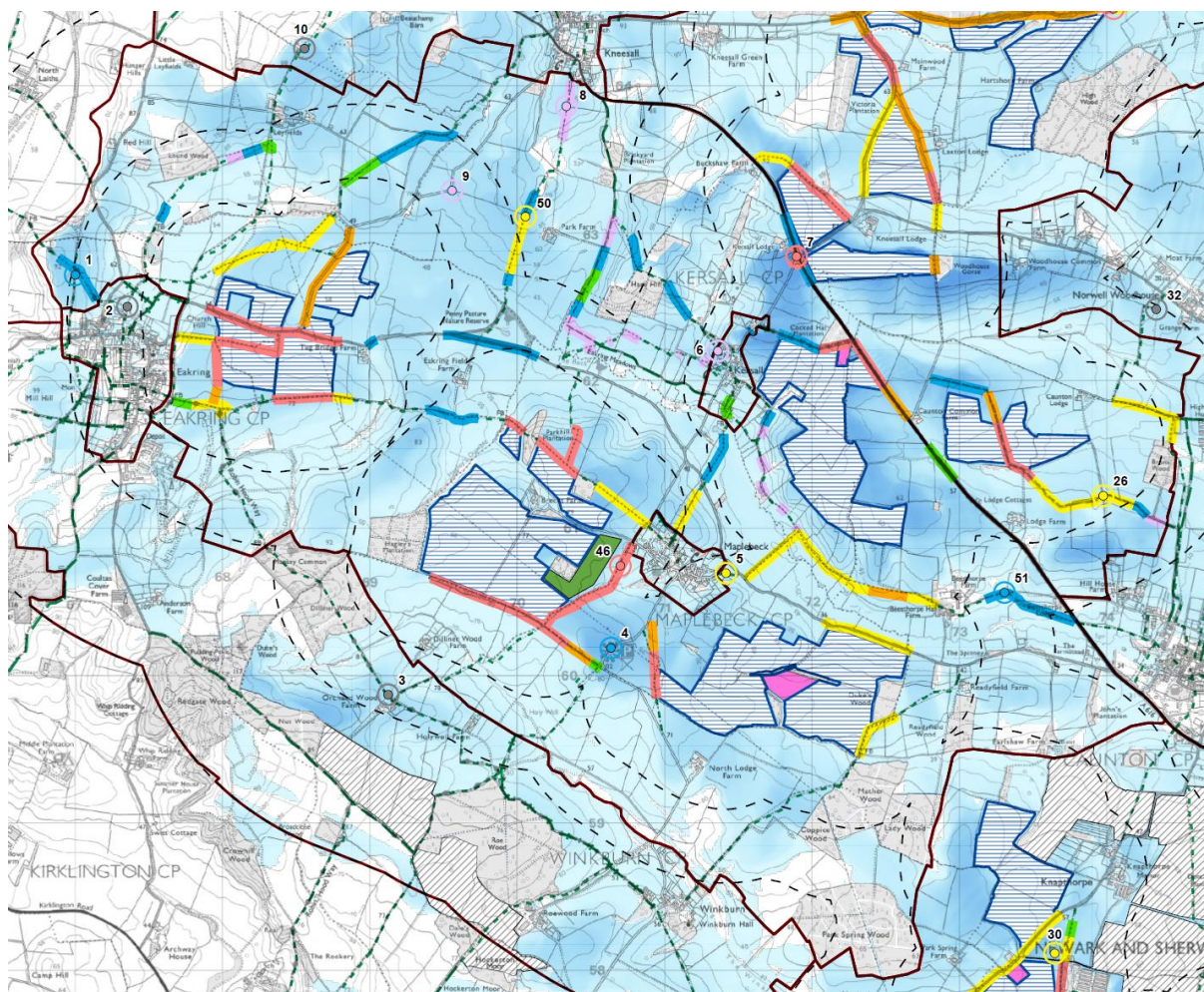
208 *Effects During Construction and Early Operation – road users*

209 For local road users, visibility of the Development would be focussed in three key areas as illustrated by Inset 7.5 below. – mostly along the road between Eakring, Maplebeck and Caunton. To the east of Eakring, Large scale changes to views would arise as a result of open views of the Development west of Tug Bridge Farm, and visibility over the existing hedges and higher ground adjacent to the road closer to Eakring. In this same area, there would be Large/medium scale changes to views as a result of visibility of solar panels above the hedges and through field gates at the southern end of the road towards Kneesall.

210 From the road next to Penny Pasture Nature Reserve, the backs of solar panels would be seen on the hillside around Parkhill Plantation, giving rise to Small scale changes to views from a short stretch of the road. East of Maplebeck, solar panels would be visible through the site entrance (leading to the Maplebeck Road Intermediate Substation, which would be screened by an existing woodland belt), and through the existing hedge in winter, giving rise to Medium scale changes to views from Maplebeck Road as it passes this part of the Development. Otherwise, visibility would be limited to occasional glimpses such as from viewpoint 9.

211 These Medium-term changes to views would arise for a Localised extent of the local road network in this area, and the magnitude of impact would be Medium. Effects would be **Major/moderate, Adverse and Significant**.

Inset 7.5: Scale - Between Caunton, Eakring and Kneesall (early operation)



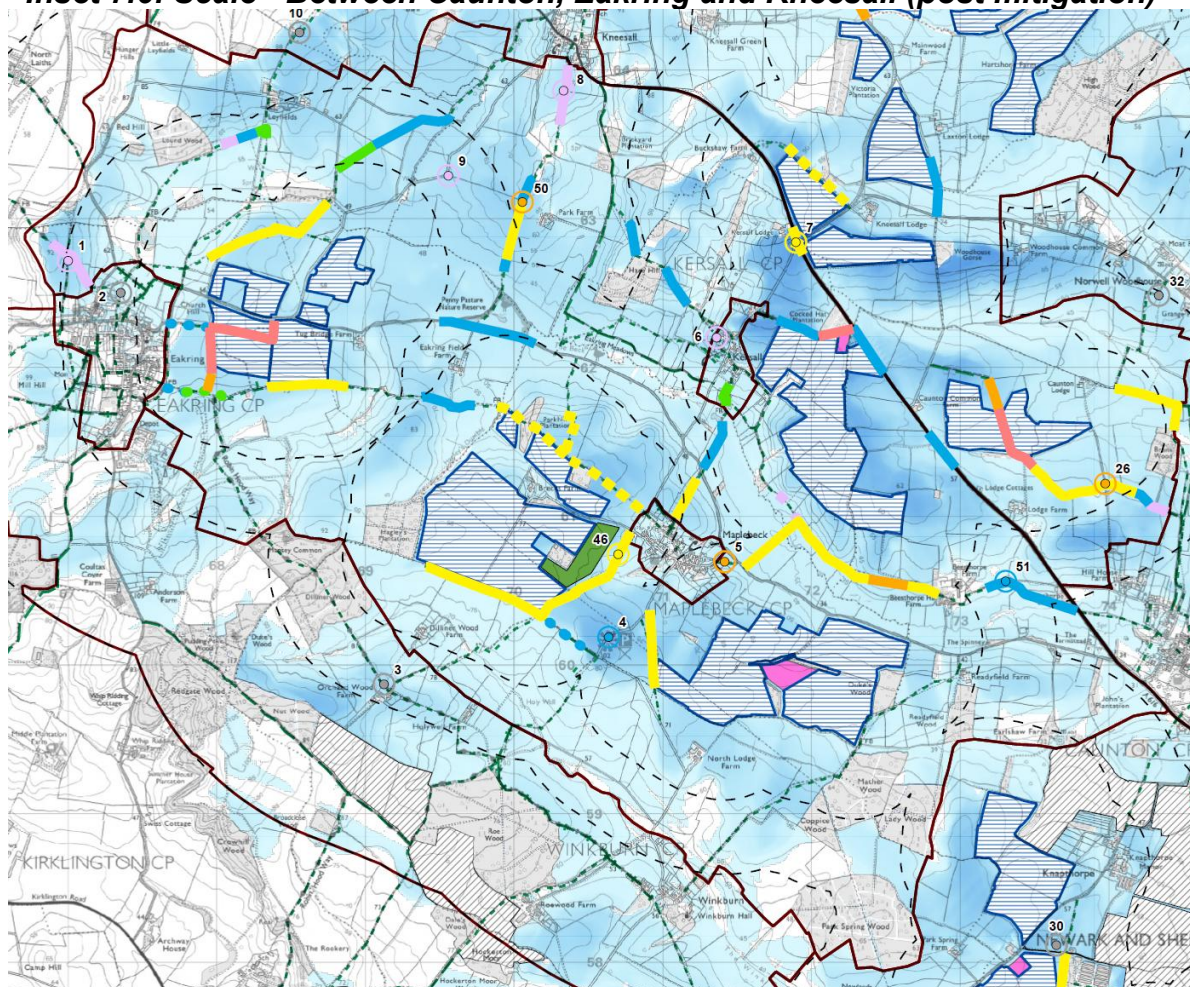
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212 ***Effects During Operation and Decommissioning – PRow users***

- 213 As shown by Inset 7.6, proposed mitigation planting would reduce effects for most routes, limiting Large scale changes to views from the diverted footpaths through the panel areas to the east of Eakring.
- 214 Large/medium and Medium scale changes to views would continue to arise from the route between Maplebeck and Beesthorpe Hall Farm where solar panels would continue to be seen in relatively open view on facing slopes across the valley. From the footpaths south and north of Maplebeck and east of Eakring, changes to views would reduce to Medium scale, remaining Adverse where open, elevated views would be blocked by hedges and become Neutral where the outlook is currently more restricted.
- 215 To the southwest of Maplebeck, changes to views would reduce to Medium scale and Adverse for those routes passing alongside the solar areas and the new woodland area as currently open views would become enclosed by mitigation planting. Small scale and Neutral changes to views would arise for

- the more distant routes which would remain more open, and Negligible for the short section currently running through trees.
- 216 From the footpath between Kneesall and Penny Pasture Nature Reserve, effects would remain as described during early operation with elevated, open views of solar panels to the south and south-west remaining, as illustrated by viewpoint 50.
- 217 For users of footpaths northeast of Eakring, changes to views would remain as described during early operation; elevated sections of these routes would continue to have open views of solar panels on facing slopes to the east of Eakring.
- 218 For users of routes radiating from Kersall, visibility of the Development would be reduced to short stretches of Small scale changes to views where open elevated views permit views of panels on facing slopes (from routes northwest and south of the village). Views from Mill Lane would remain as described for early operation.
- 219 Considering these effects together, Permanent changes to views would be Large/medium to Medium/small scale for an Intermediate extent of the right of way network in the south of this area to the east of Eakring and around Maplebeck. Whilst effects for some routes would become neutral once planting matures, this would not be the case for all routes and on balance, effects would remain Adverse. These changes would give rise to impacts of Medium magnitude and effects would be **Major/moderate, adverse and significant**.
- 220 Effects on routes in the north of this area around Kersall and Kneesall would be Medium/small to Small scale for a Localised extent of the PRow network (excepting a short section of rerouted byway passing the Mill Lane Intermediate Substation). Impacts would be of Small magnitude and effects would be Minor, Adverse and not significant.
- 221 *Effects During Operation and Decommissioning – road users*
- 222 Once mitigation planting matures, visibility from local roads would reduce to occasional views through entrance gates into the Development, and visibility of the solar panels on higher ground above the mature hedges looking southeast from the road past Penny Pasture Nature reserve as illustrated by Inset 7.6. Effects would be Small scale for a very Limited extent of the local road network in this area and the magnitude of impact would be Negligible. Effects would be Minimal, Neutral and not significant.

Inset 7.6: Scale - Between Caunton, Eakring and Kneesall (post mitigation)



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223 Effects After Decommissioning

224 After decommissioning, taller hedges and new woodlands near Maplebeck would remain in place, these would continue to give rise to a Limited extent of Medium scale, Adverse and Neutral changes to views east of Eakring. Medium scale Adverse, and Small scale Neutral changes to views for PRoW users near Maplebeck would also remain. The magnitude of impact would be Small and effects would be Moderate/minor, Adverse and not significant.

225 For users of PRoW in the north of the area around Kneesall and Kersall and northwest of Eakring, views would revert to their previous nature giving rise to Negligible scale changes to views. The magnitude of impact would be Negligible and effects would be Minimal and Neutral.

226 Given the prevalence of roadside hedges in the area, changes to views after decommissioning for road users would be limited to a slightly greater sense of enclosure along some short sections than exists at present. Permanent changes to views would be Negligible scale for a Limited extent of the road

network. The magnitude of impact would be Negligible and effects would be Minimal, Neutral and not significant.

7.7.10.6 Group D: Between Kneesall, Caunton and Ossington Airfield (Includes Development)

227 *Baseline*

228 This receptor group includes the rural area between Ossington airfield, Norwell Woodhouse, Kneesall and Caunton. The area is sparsely settled with a PRow network that is limited to three routes to the south and west of Norwell Woodhouse. The road network in this area includes the east-west local road between Kneesall and Ossington and Kneesall Road which connects Laxton to the A616 along with routes connecting to Kneesall Road to the west of Norwell Woodhouse. There are also linear areas of open access land along the road verges south of Laxton Wood and Laxton Middle Wood. Viewpoints 26 and 33 are located within this area and viewpoint 7 is on its boundary.

229 Properties in this area that are within 250 m of the solar panels are considered within the RVAA at TA A7.6 [EN010162/APP/6.4.7.6]. Those at greater distance would experience similar effects to these described for adjacent roads and/or PRow.

230 *Effects During Construction and Early Operation – PRow users*

231 Large scale changes to views would occur along the bridleway passing through the solar area west and southwest of Caunton Lodge. These would reduce to Medium scale where the bridleway exits the solar area north of Lodge Farm and continues along farm tracks to the east where there would be open views of solar panels on facing slopes seen across a shallow valley. Changes would reduce to Small scale south of Brunk Wood as the route begins to turn away and becomes more enclosed by hedgerows on both sides, rapidly reducing to Small/negligible scale at viewpoint 26.

232 Medium scale changes to views would also arise from the track and footpath east of Caunton Lodge, and extending round to the northern edge of Brunk Wood, where there would be open views along the shallow valley towards solar panels to the southwest of Caunton Lodge.

233 Changes to views from the footpath between Buckshaw Farm and Kneesall Lodge would be Large scale for most of the route which would pass adjacent to the solar panels. The northern end of this short footpath would have more limited visibility – of solar panels above the field boundary hedge, and changes to views here would be Medium scale.

234 Medium-term changes to views from the footpath network in this area would be Large to Medium scale for a Wide extent of the available PRow routes. The magnitude of impact would be Large/medium and effects would be **Major/moderate, Adverse and significant**.

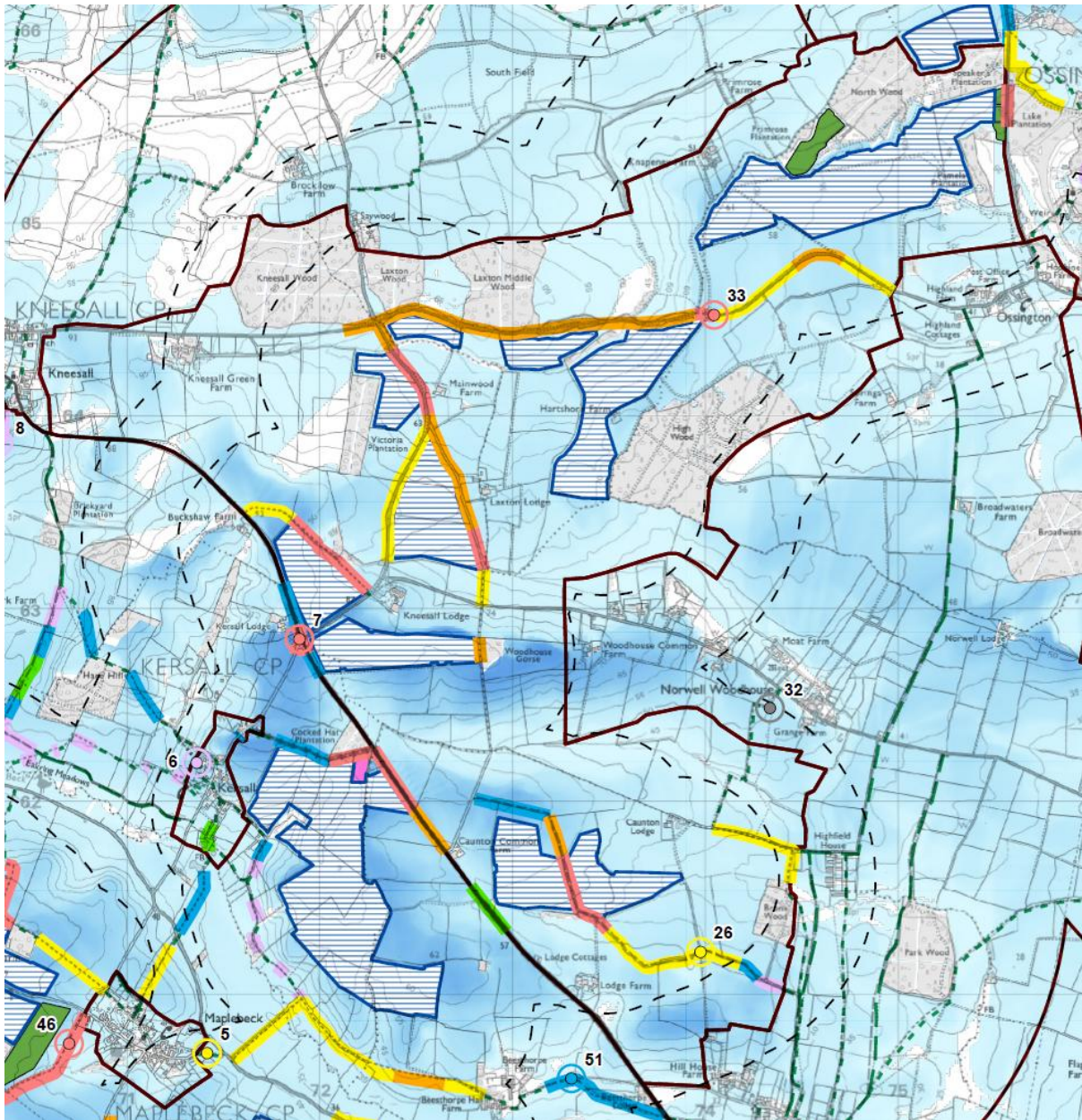
235 *Effects During Construction and Early Operation – road users*

236 As shown by Inset 7.7, most of the local roads in this area would pass alongside or close to solar areas. Visibility from these routes would include

open views of the solar panels from the road across the former Ossington airfield; filtered views through narrow woodland belts from that same road as it continues westwards; views of solar panels above roadside hedges from the two roads south from Kneesall Wood to the A616, more extensively from the one that passes east of Kneesall Lodge and down to Caunton Common Farm; and, a short stretch of elevated views of a nearby panel area from close to the road junction near Kneesall Wood. Taller hedges and more limited variation in the terrain would screen views of the Development from the road southwest of Kneesall Lodge and the road between Kneesall Wood and Kneesall.

- ²³⁷ Medium-term changes to views would be Large to Medium scale for a Wide extent of the local road network in this area and the magnitude of impact would be Large/medium. **Effects would be Major/moderate, Adverse and significant.**

Inset 7.7: Scale – Between Kneesall, Caunton and Ossington Airfield (early operation)



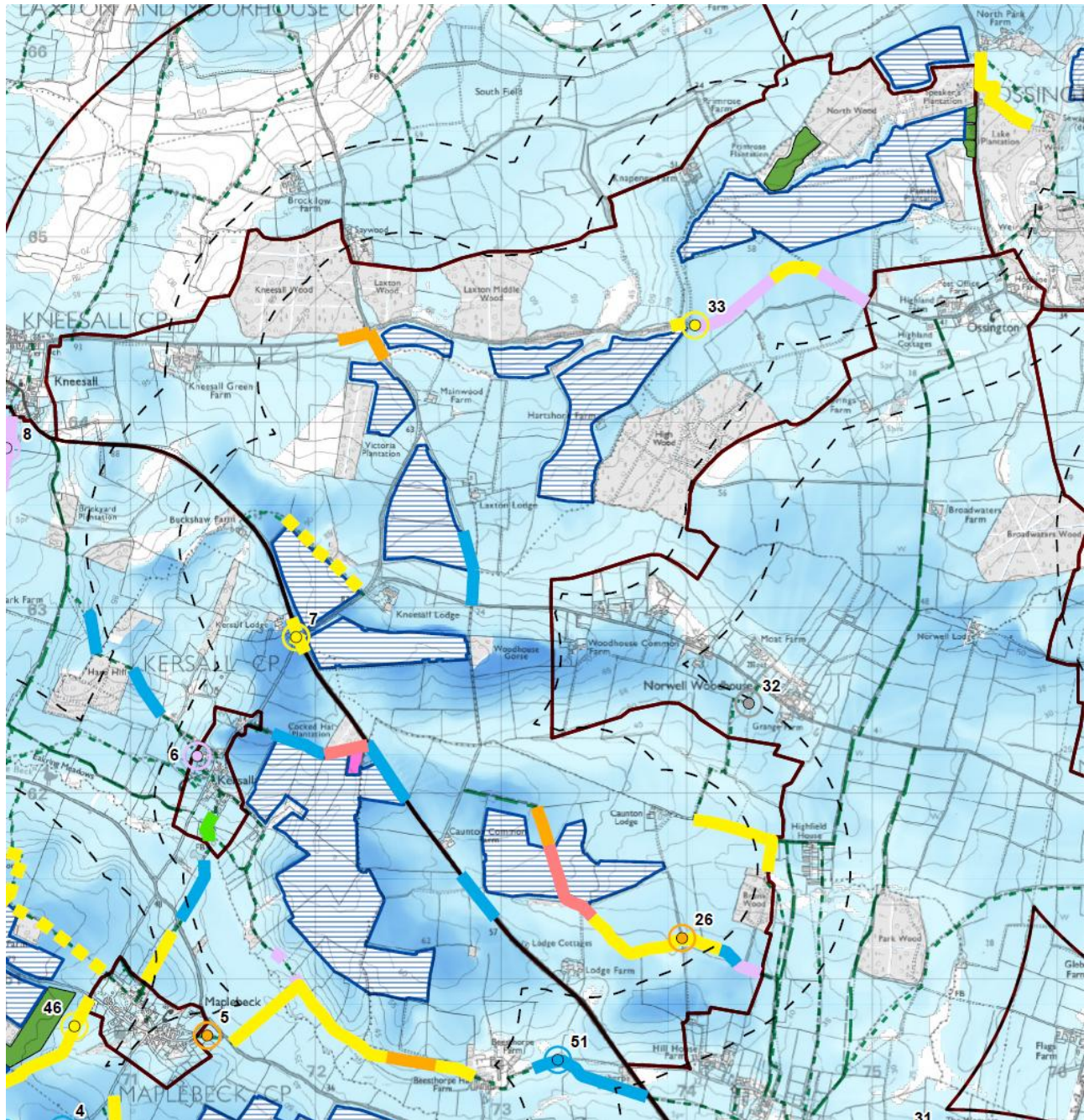
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238 *Effects During Operation and Decommissioning – PRow users*

239 Users of the bridleway and footpath east and south of Caunton Lodge would experience the same scale and extent of changes to views as described during early operation. The stretch of the bridleway passing through the panels would become enclosed by hedges on both sides (where presently open views in one direction are possible) and to the southeast of the solar area, the solar panels would continue to be seen looking over the proposed hedges around the solar areas looking across the shallow valley.

- 240 Changes to views from the footpath between Buckshaw Farm and Kneesall Lodge would reduce to Medium and Neutral along most of the route as a result of the further enclosure of the route by hedges and woodland to both sides, adding to the existing enclosure provided by the terrain and existing vegetation. Mature hedgerows around the solar area would reduce changes to views from the northern end of the footpath to negligible.
- 241 Permanent changes to views from the footpath network in this area would mostly remain Large to Medium scale for a Wide extent of the available PRow routes. The magnitude of impact would be Large/medium and effects would be **Major/moderate, Adverse and significant**.
- 242 *Effects During Operation and Decommissioning – road users*
- 243 Once the existing hedges around the solar areas grow taller and the narrow roadside woodland belts have increased in density, changes to views would reduce in extent and degree as shown by Inset 7.8. In most places, changes to views would reduce to Negligible as solar panels would be screened by the roadside vegetation which is commonplace in this area. The elevated view of solar panels would remain from the junction near Kneesall Wood, and solar panels would continue to be seen from the road south of Laxton Lodge where slopes would permit visibility of solar panels over the hedges. From the road across the former Ossington airfield, the introduction of hedges would give rise to Medium scale changes to views at the closest point to the Development and Small/negligible scale changes with greater distance.
- 244 Considered together, these Permanent changes to views would arise over a Limited extent of the road network in this area and the magnitude of impact would be Medium/small. Effects would be Moderate, Adverse and not significant.

Inset 7.8: Scale – Between Kneesall, Caunton and Ossington Airfield (post-mitigation)



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245 ***Effects After Decommissioning***

246 After decommissioning, changes to views from the track and footpath east of Caunton Lodge to Brunk Wood would be Negligible scale with taller and more extensive hedgerows subtly reinforcing the existing field pattern here. The bridleway to the north and east of Caunton Common Farm would remain enclosed between hedgerows giving rise to a Permanent Localised extent of

Large scale and Adverse changes to views but southeast of the former panel areas, changes would be of Negligible scale. Taking these together, the magnitude of impact would be Medium and effects would be Moderate, Adverse and not significant.

- 247 After solar panels are removed the only remaining effects on road users would be at Ossington Airfield, where the hedges would continue as a noticeable Permanent change, giving rise to a very Limited extent of Medium and Small/negligible changes to views. The magnitude of impact would be Small and effects would be Moderate/minor, Adverse and not significant.

7.7.10.7 Group E: Between A1, Ossington and Moorhouse (Includes Development)

248 *Baseline*

- 249 This receptor group encompasses the rural landscape southwest of the A1 between Sutton-on-Trent and Egmonton, extending across to the edge of Ossington and encompassing the area around the hamlet of Moorhouse. There is an extensive network of rights of way in the area, radiating from Ossington and Moorhouse and extending towards Egmonton and settlements to the east of the A1. The local road network includes Moorhouse Road / Ossington Road and Green Lane which radiate from Moorhouse; and local roads heading east from Ossington and connecting across the A1 to Sutton-on-Trent via Common Farm. The area is noticeably more wooded than other parts of the study area, particularly to the north of Ossington.
- 250 Properties in this area that are within 250 m of the solar panels and/or substations are considered within the RVAA at TA A7.6 [EN010162/APP/6.4.7.6]. Those at greater distance would experience similar effects to these described for adjacent roads and/or PRoW.
- 251 *Effects During Construction and Early Operation – PRoW users*
- 252 As shown by Inset 7.9 below, the network of routes between Moorhouse and the A1 would pass between and adjacent to solar areas. Some existing routes in this area are double-hedged lanes and effects on these would be Large scale initially, where they pass adjacent to panel areas, as the solar panels would be seen above the hedges which are currently maintained at heights of 1.2-1.5 m. Heading east from Moorhouse there would initially be visibility of solar panels along the skyline to the north and northeast near a large, recently constructed barn (not shown in viewpoint photos or on mapping) giving rise to Small/negligible scale changes to views as illustrated by viewpoint 13.
- 253 Moving beyond the houses, visibility of solar panels on rising ground to the northeast and to the east would increase and the scale of changes to views would increase from Medium to Large upon reaching the Development and as routes pass through and alongside panel areas. Where the bridleway passes through Wadnal Plantation, changes to views would be reduced to Large/medium scale as visibility would be filtered through the trees. On the bridleway continuing southeast from Cocked Hat Plantation, open views of

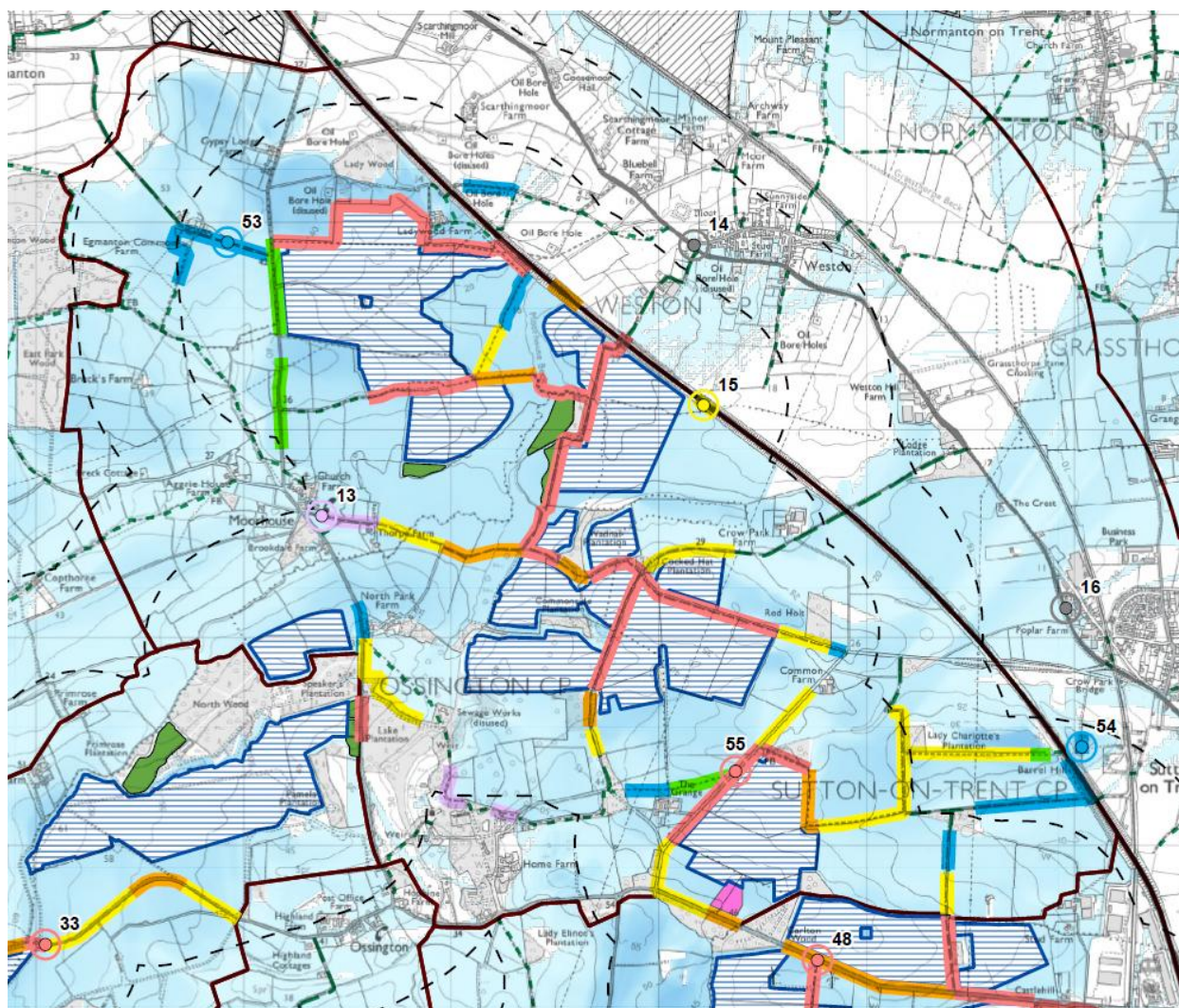
solar panels on rising ground to the south would give rise to Large scale changes to views and the bridleway to the south would also experience Large scale changes as a result of panels seen above hedges to either side. The other bridleway heading northeast would have Medium scale changes to views as a result of visibility through tall hedges.

- 254 Routes to the northeast and east of Ossington would have more limited visibility, with the most open views being of solar panels to the east on rising ground from the diverted footpath south of North Park Farm where changes to views would be Medium scale; and to the north on rising ground from the footpath near The Grange where changes to views would be Medium/small and small scale – views into the panel area to the east are generally limited by landform from this route except for a short stretch as it approaches the road. The footpaths through woodland closer to Ossington would have limited visibility, with short stretches of Small/negligible changes to views where the edges of solar areas would be seen beyond nearby fields containing parkland trees.
- 255 Users of the bridleways and footpaths between the road past Common Farm and the A1 would experience Large to Medium scale changes to views as a result of close views of solar areas where routes approach and pass through the solar areas to the west of Castlehill and south of Common Farm. There would also be Medium scale changes as a result of elevated views towards the Development to the west from the footpath heading east from Lady Charlotte's Plantation. This footpath runs alongside the A1 at its eastern end and the whole route shows signs of limited use. The lower lying eastern routes in this area have more limited visibility towards the Development to the south and changes to views would be Small scale.
- 256 To the northeast of Moorhouse, Large scale changes to views would continue to arise from the existing and diverted routes south and west of Ladywood Farm which would pass adjacent to panel areas. Small scale changes to views would arise from the bridleway and footpath near Egmonton Common Farm where there would be elevated views towards the solar panels on facing slopes south of Moorhouse, backed by woodland, and views of more nearby solar panels through the field entrance and gaps between trees in winter to the east and as illustrated by Viewpoint 53. Other PRoW northwest and west of Moorhouse would have limited or no visibility of the Development.
- 257 Considered together, Medium-term changes to views from PRoW in this area would be Large to Medium scale for a Wide extent of the PRoW network. The magnitude of impact would be Large/medium and effects would be **Major/moderate, Adverse and significant.**
- 258 *Effects During Construction and Early Operation – road users*
- 259 Road users on Moorhouse Road would see solar panels through the roadside trees in winter as they pass the Development, along with a brief open view of the Development through a site entrance, where solar panels would block the presently open view to the east. Further south towards Moorhouse, there would be visibility of solar panels on facing slopes south of

Moorhouse, backed by woodland. Changes to views from this route would mostly be Medium/small scale apart from at the site entrance where changes to views would be Large scale. There would be no visibility of the Development from Green Lane heading west from Moorhouse.

- 260 Along Ossington Road between Moorhouse to Ossington, there would be Small scale changes to views from the road to the south of North Park Farm, where the top of solar panels would be visible where they are set back above the roadside hedge. There would also be more open visibility giving rise to Large scale changes to views from the road south of Speakers Plantation where there would be open views of solar panels to the west through large gaps in the roadside hedge.
- 261 From the local road heading to Sutton on Trent, there would be Large scale changes to views as a result of views of nearby solar panels above the roadside hedge as the road runs past the panel area east of The Grange. North of this stretch there would be Medium scale changes to views arising from views of solar panels to the north on rising ground seen above the roadside hedge.
- 262 Considered together these Medium-term changes to views would affect a Wide extent of the road network as most of the roads in the area would have some views of the Development, though the extent of Large and Medium scale changes would be Localised. The magnitude of impact would be Medium and effects would be Moderate, Adverse and not significant.

Inset 7.9: Scale - Between A1, Ossington and Moorhouse (early operation)



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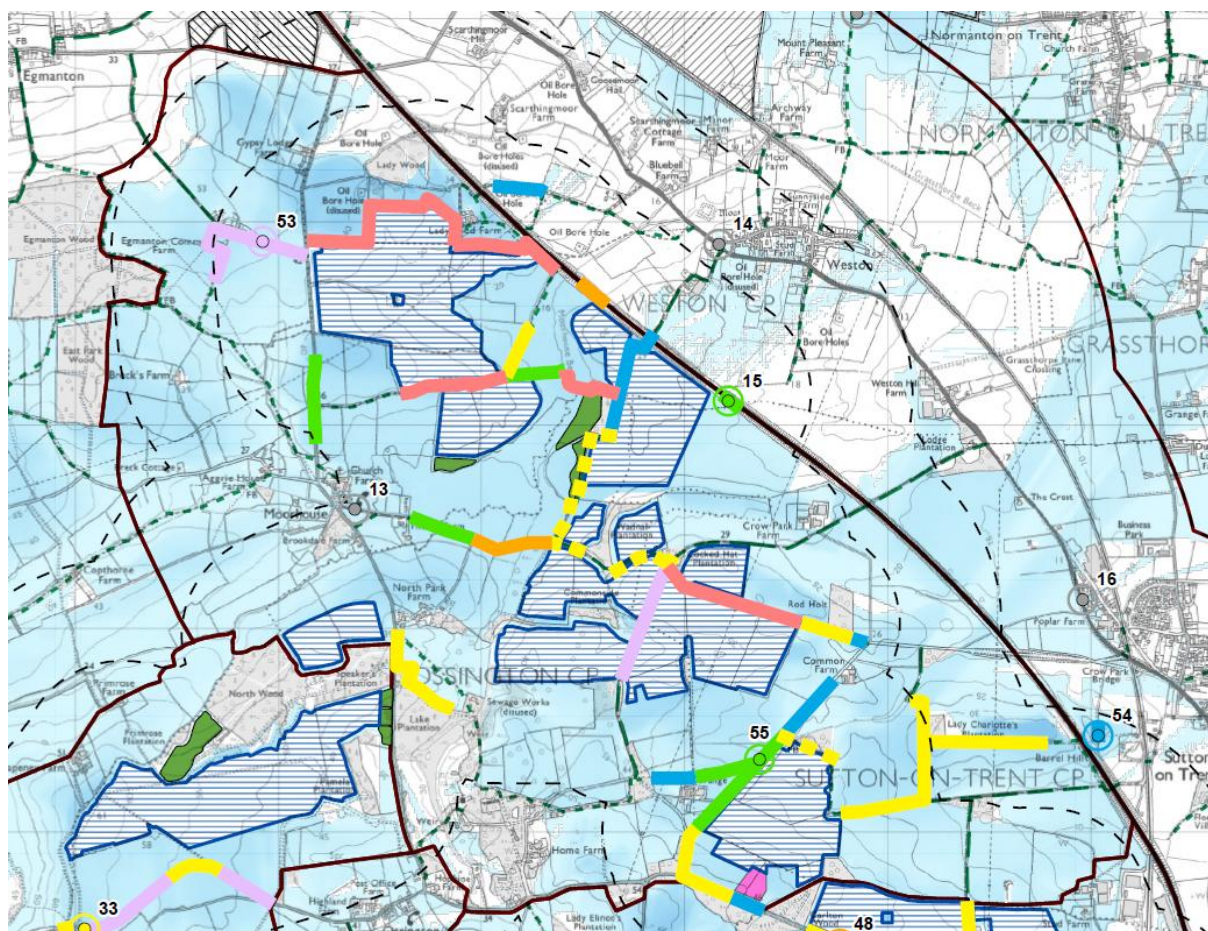
263 *Effects During Operation and Decommissioning – PRow users*

264 As shown by Inset 7.10 below, changes to views from the double-hedged routes would reduce to Small and Small/negligible scale as a result of the increased enclosure of views, and some remaining views of solar panels over the hedges from the route as it descends from the A1 near Weston. Changes to views from routes within the panel areas which presently have a hedge only to one side would be Medium and Neutral as a result of the enclosure by hedges to both sides. Large scale adverse changes to views would continue to arise from the bridleway southeast of Cocked Hat Plantation as a result of the enclosure of the currently more open vistas.

265 Where solar panels would continue to be visible above the mitigation planting, effects would continue as during early operation, this includes the diverted footpath south of North Park Farm; the footpath north of The Grange and the route heading east from Moorhouse.

- 266 Hedges around the panel areas to the south would reduce effects for users of the bridleways and footpaths between the road past Common Farm and the A1. These would be most effective for those routes with views towards the panel area to the south, where the hedge would be seen along the skyline until routes pass through it into the solar area. There would still be Large to Medium scale effects on routes in this area and users of the route heading eastwards towards the local road south of Common Farm would continue to have open views into solar areas to the west, as would users of the footpath heading east from Lady Charlotte's Plantation.
- 267 To the northeast of Moorhouse, Large scale changes to views would arise from the existing and diverted routes south and west of Ladywood Farm as a result of the diversion and changes to views which are currently elevated and open in places. Small/negligible scale changes to views would continue to arise from the bridleway and footpath near Egmonton Common Farm where there would be elevated views towards the solar panels, beyond planting, on facing slopes south of Moorhouse as illustrated by Viewpoint 53 and closer views of panels to the east through the field entrance and through trees in winter.
- 268 After mitigation planting has matured, Large and Medium scale, Permanent changes to views would continue to arise for an Intermediate extent of the PRow network in this area. The magnitude of impact would be Large/medium and effects would be **Major/moderate, Adverse and significant**.
- 269 *Effects During Operation and Decommissioning – road users*
- 270 From Moorhouse Road there would be visibility of solar panels on facing slopes south of Moorhouse, backed by woodland giving rise to Medium/small scale changes to views, with Large scale changes to views as the road passes the site entrance.
- 271 Along Ossington Road between Moorhouse to Ossington, there would be Small/negligible scale changes to views from the road to the south of North Park Farm, where mature woodland would enclose the west side of the road. From the local road heading to Sutton-on-Trent, there would be Medium/s to Small scale changes to views as a result of panels being screened in the adjacent area to the east but visibility of more distant solar panels seen beyond mature hedges to the north, from near Common Farm and within the open outlook from the road junction east of Ossington.
- 272 Considered together these Permanent changes to views would affect to a limited extent of the road network. The magnitude of impact would be Small and effects would be Minor, Adverse and not significant.

Inset 7.10: Scale - Between A1, Ossington and Moorhouse (post-mitigation)



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273 ***Effects After Decommissioning***

274 After decommissioning, the remaining changes to views would be continued change as a result of taller hedges enclosing routes – which would give rise to Large scale Adverse changes to views from the bridleway heading east from Cocked Hat Plantation; and Large scale Adverse changes to views as a result of the diversion of the footpath to the northeast of Moorhouse, where the diversion results in less open, elevated views than from the current route. There would also be Small/negligible scale, Neutral changes to views along the double-hedged routes east of Moorhouse. These Permanent changes would affect a Localised extent of the PRoW network and the magnitude of impact would be Medium. Effects would be Moderate, Adverse and not significant.

275 For road users, the only noticeable changes after decommissioning would be the increased enclosure of Ossington Road between Moorhouse to Ossington by woodland and the increased enclosure to one side of the minor road to Sutton-on-Trent, giving rise to Permanent Small/negligible scale changes to views for a Limited extent of the local road network. The

magnitude of impact would be Negligible and effects would be Minimal, Neutral and not significant.

7.7.10.8 Group F: Between Carlton-on-Trent, Ossington and Norwell (Includes Development)

276 Baseline

277 This receptor group encompasses the rural landscape between the A1 road at Carlton-on-Trent, the ECML railway west of Cromwell, southeast of Ossington and north of Norwell. The area is sparsely settled and the network of rights of way is focussed to the area east of Carlton-on-Trent. The local road network includes Ossington Road between Carlton-on-Trent and Ossington; two roads connecting Ossington Road to Norwell, and Norwell Lane between Cromwell and Norwell. The landscape is undulating to the west of the railway line, with fields bounded by hedges and occasional woodland blocks.

278 Properties in this area that are within 250 m of the solar panels and/or substations are considered within the RVAA at TA A7.6 [EN010162/APP/6.4.7.6]. Those at greater distance would experience similar effects to these described for adjacent roads and/or PRow.

279 Effects During Early Construction and Operation – PRow users

280 As shown by Inset 7.11 below and represented by viewpoint 48, most PRow in the northeastern part of this group, including diverted footpaths south of Castlehill, would pass through or alongside panel areas and. Changes to views would include currently open, slightly elevated vistas being blocked by solar panels for users of routes near Whiteley Plantation, and close views of solar panels to both sides when walking past the wind turbines north of Hill Farm. Changes to views in this area would generally be Large scale except for some short sections of paths east of Hill Farm, which would be Medium and Medium/small scale where the solar areas to the east would be screened by woodland and hedgerows and views would be of the solar areas to the northwest and southwest.

281 People walking south on the diverted route past Willoughby Farm would see solar panels on nearby facing slopes as they walk towards the panel area north of Claxhill Farm. Walking past the Development, users of this footpath would also see the solar panels through the more sparse sections of hedge – particularly in winter – giving rise to Large/medium and small-scale changes to views, varying depending on the degree of screening by the hedgerows. A short section of this route would also have slightly elevated views towards solar panels to the northeast.

282 Users of the short footpath north of the Old Vicarage at Norwell and the footpath north of Claxhill Farm would see solar panels to the north beyond the gappy hedge on the skyline, /sgiving rise to Small scale changes to views.

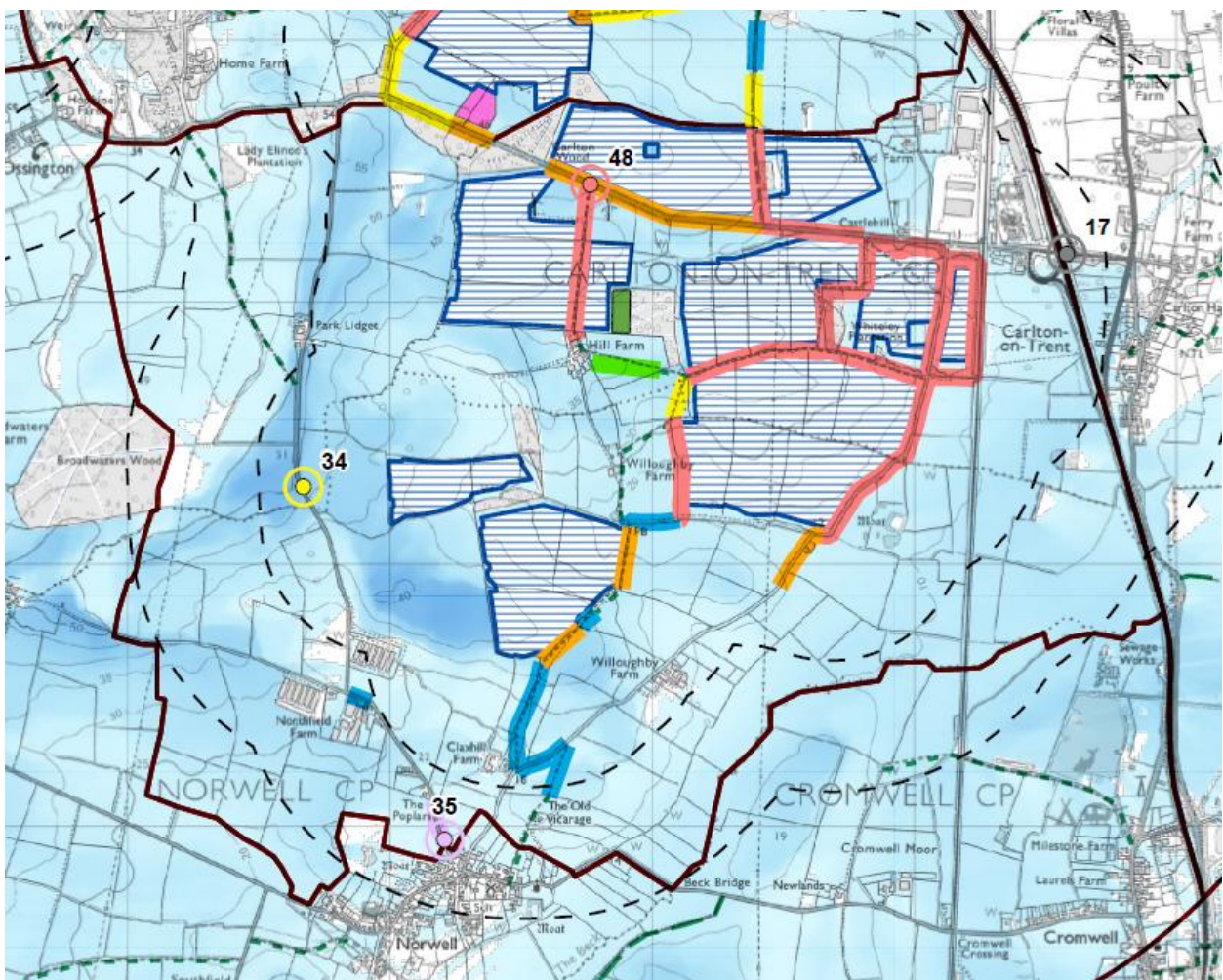
283 There would be no visibility of the Development from the short footpath west of Park Lidget as the hedges along the nearby road screen eastward views.

- 284 Considering these effects together, Medium-term changes to views would mostly be Large and Large/medium scale for a Wide extent of the PRow network. The magnitude of impact would be Large and effects would be **Major/moderate, Adverse and significant.**
- 285 *Effects During Construction and Early Operation – road users*
- 286 As shown by Inset 7.11 below, Large scale changes to views would occur along two sections of Ossington Road; to the west of Castlehill where it passes between panel areas in fields immediately adjacent to the road, and panels would be seen over hedges on gently rising ground to either one side of the road or the other; and to the west of Carlton Wood where the Ossington Road Intermediate Substation and solar panels would be seen over and through roadside hedgerows to the north, beyond which the currently open view would still be visible given the solar arrays would be set back and lower than the road. Medium or Large/medium scale changes to views would arise along most of the stretch between these two areas (except where the road passes through Carlton Wood), where panels would be seen over hedges on gently rising ground to the north but slightly set back and on facing slopes to the south, as illustrated by viewpoint 48. Construction traffic would also use Ossington Road which would result in a slight increase in vehicles seen using the route.
- 287 Large scale changes to views would also arise for users of the road between Carlton Crossing and Norwell as it passes between and alongside panel areas and the Carlton Crossing Intermediate Substation. Panel areas to the east of the road would be largely screened by existing hedgerows but the substation would be visible above these and panels to the west of the road would be seen above hedgerows on gently rising ground. Construction traffic would also use this northern section of the road which would result in a slight increase in vehicles seen using the route. Passing Willoughby Barn, a small tree belt would partially screen views of the panel area to the north and changes would reduce to Large/medium scale for a short stretch before rising ground north and west of Willoughby Farm largely screens views from the southern half of the route.
- 288 Users of the road between Ossington Road and Norwell, passing Park Lidget, follow a route that is mostly hedge-lined with limited outward views. Viewpoint 34 is a notable exception, providing an elevated outlook from large field openings to both sides of the road, where there would be Medium scale changes to views arising from visibility of nearby solar panels on lower lying ground within the open vista to the east. There would also be a short stretch of visibility of solar panels beyond the sparse hedge on the skyline to the northeast near Northfield Farm, which would give rise to Small scale changes to views.
- 289 /sAs road users leave Norwell, heading towards Northfield Farm, a short stretch of views towards panel areas beyond a gappy hedge on the skyline to the north would give rise to Small/negligible scale changes to views for northbound road users, as represented by viewpoint 35.

290 Medium-term changes to views in the northern part of this area would be Large and Large/medium scale for a Wide extent of the local road network. The magnitude of impact would be Large and effects would be **Major/moderate, Adverse and significant.**

291 In the southern part of this area, there would be little visibility of the Development for local road users and there would be Medium to Small scale changes to views for a Medium-term and very Limited extent. The magnitude of impact would be Small and effects would be Minor, Adverse and not significant.

Inset 7.11: Scale - Between Carlton-on-Trent, Ossington and Norwell (early operation)



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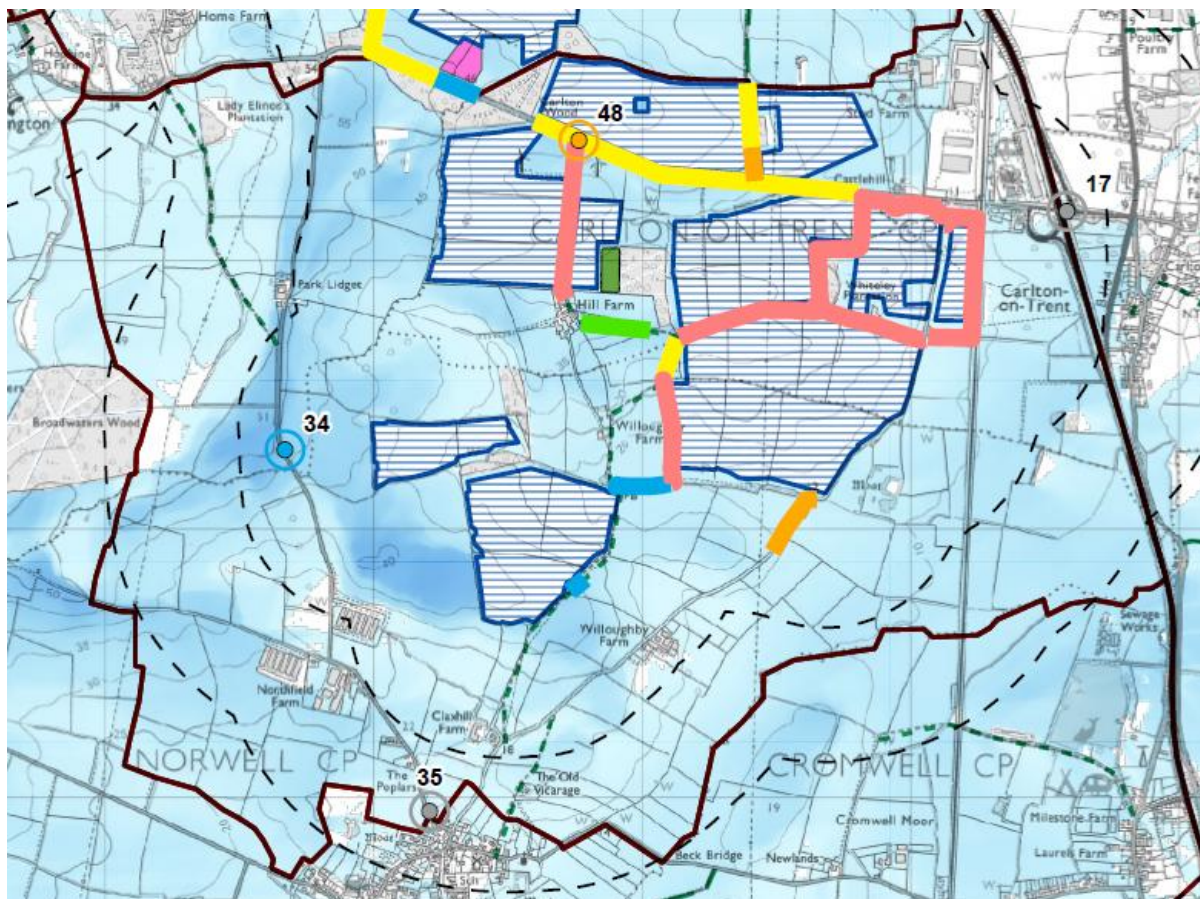
292 ***Effects During Operation and Decommissioning – PRow users***

293 As shown by Inset 7.12 below, the increased density of hedges adjacent to the panel area south of Willoughby Farm would reduce visibility of panels through the hedge, and along most of this path to Claxhill Farm changes to views would reduce to Negligible, except where there is a very short stretch

of visibility of solar panels to the north. Otherwise, changes to views for users of PRow would remain similar in scale and extent to those described during early operation once hedges mature, due to the enclosure by hedges of the currently open views from the routes around Whiteley Plantation.

- 294 Permanent changes to views would be Large and Large/medium scale for a Wide extent of the PRow network. The magnitude of impact would be Large and effects would be **Major/moderate, Adverse and significant**.
- 295 *Effects During Operation and Decommissioning – road users*
- 296 As shown by Inset 7.12 below and illustrated by viewpoint 48, changes to views from Ossington Road would reduce to Medium scale as the panels adjacent to the road would be screened by mature hedges, but views of panel areas on lower lying facing slopes would remain west of Castlehill before the road enters woodland to the west beyond the wind turbines. Passing the substation, changes would reduce to Small scale, due to the enclosure of this short section of the road by a new woodland belt while the substation itself would be screened. Views of the solar panels beyond hedges would remain and give rise to Medium scale changes to views around the road junction west of the substation.
- 297 Changes to views for users of the road between Carlton Crossing and Norwell would mostly reduce to Negligible as roadside hedges would screen the solar panels, except for road users heading north past Willoughby Barn, where a short stretch of Large/medium scale changes to views would arise due to visibility of solar panels on rising slopes to the north.
- 298 Users of the road between Ossington Road and Norwell, passing Park Lidget, would experience Small scale changes to views as a result of views of more distant solar panels beyond the mature hedges from viewpoint 34, but otherwise changes to views would be Negligible scale in the small area of visibility near Northfield Farm as a result of views of the proposed hedge on the skyline.
- 299 From Norwell Lane there would be a short stretch of Small scale changes to views where the hedges are cut low and have gaps between Newlands and Cromwell Crossing; arising as result of views of the taller hedges and a less open vista to the south and southeast. The nearby substation would be screened by intervening woodland.
- 300 Permanent changes to views in the northern part of this area would be Medium and Large/medium scale for a Localised extent of the road network. The magnitude of impact would be Medium and effects would be Moderate, Adverse and not significant.
- 301 In the southern part of this area, there would be Permanent Small-scale changes to views for a very Limited extent. The magnitude of impact would be Negligible and effects would be Minimal, Neutral and not significant.

Inset 7.12: Scale - Between Carlton-on-Trent, Ossington and Norwell (post-mitigation)



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302 *Effects After Decommissioning*

303 After decommissioning, taller hedges near Hill Farm and to the southeast of Carlton-on-Trent would remain in place, as would the Ossington Road substation, enclosed by mature planting. The continued enclosure of views from footpaths, would give rise to Permanent, Large scale effects on views for a Wide extent of the PRoW network, resulting in impacts of Large magnitude. Effects would be **Major/moderate, Adverse and significant**.

304 Changes to views from roads after decommissioning would continue to arise as a result of the increased enclosure of views by hedges where outlooks are currently more open, but these minor differences would not be particularly noticeable. These Permanent changes would affect a very Limited extent of the road network and the magnitude of impact would be Negligible. Effects would be Minimal, Neutral and not significant.

7.7.10.9 Other Visual Receptors

305 /mEffects on the following visual receptors are assessed to be not significant and Moderate/minor or less. They are summarised in TA A7.5 [EN010162/APP/6.4.7.5]:

- Kersall (0.1 km);
- A1 (0 km);
- A616 (0 km);
- A617 (0.3 km);
- East Coast Main Line railway (0 km); and
- Robin Hood Way (0.1 km).

³⁰⁶ Effects on the following visual receptors are assessed to be Negligible for the reasons described below or within TA A7.5 [EN010162/APP/6.4.7.5]:

- All visual receptors beyond 2 km, based on the geographic distribution of changes to views set out in section 7.7.8;
- Averham and Staythorpe (0.5 km);
- Cromwell (1.5 km);
- Eakring (0.2 km);
- Maplebeck (0.2 km);
- Group G: East of the A1 (0.0 km);
- Group H: Ossington to Cromwell and A616, including Norwell, Norwell Woodhouse and Caunton (0.2km);
- Group I: Hockerton, Upton, Staythorpe, Averham and Kelham (0.3 km);
- Group J: Between Hockerton and Eakring (0.5 km);
- Group K: Kneesall to Laxton and Egmanton (0.2 km);
- Recreational users of the River Trent (1.0 km), and
- Nottingham to Lincoln (Newark Castle) Railway (1.7 km).

7.7.11 Designated Areas

³⁰⁷ As set out at section 7.5.3, there are no designated landscapes within the study area that require assessment.

7.8 MITIGATION MEASURES AND RESIDUAL EFFECTS

³⁰⁸ Mitigation measures for landscape and visual effects are included within the design for the Development as described in section 7.6. No further mitigation measures are proposed and residual effects would be as reported in section 7.7.

7.9 CUMULATIVE EFFECTS ASSESSMENT

³⁰⁹ Cumulative effects with existing development, and consented developments which are expected to be completed are considered in section 7.7 as recommended by PINS guidance²³.

³¹⁰ The cumulative assessment is based on the same landscape and visual baseline and receptor groups as the main LVIA, and the methodology is the same in terms of forming and expressing judgements. Two types of judgement may be provided:

²³ Planning Inspectorate (20 September 2024). Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment>, [accessed on 07/11/2024].

- Additional effects –The effects that would arise from the addition of the Development to a baseline which includes the cumulative development(s) being considered; and
 - Combined effects – The effects that would arise from the addition of both the Development and the cumulative development(s) being considered to the main assessment baseline.
- 311 Typically, only the additional effects need to be considered and the cumulative assessment is provided to inform decision-making in the event that one or more of the cumulative developments has been consented prior to the Development (i.e. the future baseline has changed). The combined effects may be relevant where two or more development applications are determined together, which is not expected to be the case for the Development.
- 312 Landscape and visual receptors that are considered to receive effects of small-negligible or negligible magnitude from the Development are not included in this assessment, as an effect of such low magnitude adds nothing or very little regardless of the effects of other developments.

7.9.1 Assessment Scenarios

- 313 The initial area of search for developments to be included in the long list for cumulative landscape and visual effects was 10 km. The reasons for the exclusion of long-listed projects are provided in TA A2.1, Cumulative Assessment Stages 1 and 2 [EN010162/APP/6.4.2.1] along with the cumulative project shortlist, which is illustrated by Figure A2.1.1 within TA A2.1.
- 314 Some short-listed projects are included for topics with wider study areas and are not of relevance to this chapter. Those developments of specific relevance to this chapter include:
- Solar farms in planning at Kelham, Foxholes and One Earth;
 - The BESS in planning to the west of Averham (SSE BESS);
 - An application relating to Ness Farm quarry;
 - Improvements to the A46 around Newark; and
 - The application for carbon capture and storage (CCS) at Staythorpe Power Station.
- 315 Of these, the following developments are not considered in detail for the following reasons:
- As shown by Figure 7.8 [EN010162/APP/6.3.7.8], One Earth solar farm would be located approximately 4 km to the northeast of the Development. There is limited visibility of the Development in this area due to areas of higher ground which screen views, such that from most places, views would be either towards One Earth, or towards the Development. Where there is potential for views of both developments such as from the local road to the north of viewpoint 52, the Development would be relatively distant and would give rise to Negligible changes to views.

- As shown by Figure 7.9 [EN010162/APP/6.3.7.9], Foxholes solar farm would be located approximately 1.4 km from the closest part of the Development to the north of Norwell, and more than 2 km from other parts of the Development. The only effects arising from the Development within 2 km of Foxholes solar farm would be Small scale changes to views from footpaths north of Norwell and Small/negligible scale changes to views from the local road northwest of Norwell. Foxholes solar farm would be distantly visible in places from these footpaths, but not from the road and its presence would not alter the effects arising from closer views of the Development seen in the other direction.
- Ness Farm quarry is located mostly beyond the study area with one of the consented developments within the study area. Localised changes to the landscape and views as a result of quarrying are already part of the baseline in that area and further changes would not alter the Negligible changes arising from the Development in that part of the study area.
- Improvements to the A46 would not change the road alignment and would be beyond the study area. The landscape and visual effects arising from the A46 improvements are not likely to extend far beyond the road corridor and would take place in an area where impacts arising from the Development would be Negligible.

316 Taking the above into account, the only unconsented developments requiring detailed consideration at the application stage were the SSE BESS and Kelham solar farm which are considered in section 7.9 below. These schemes were consented during the Examination stage for the Development.

317 The Staythorpe Power Station CCS application was made during the Examination stage for the Development and was not considered in the application stage LVIA. Cumulative effects with this development are considered in section 7.9.3 below.

7.9.2 Cumulative Effects with Kelham Solar Farm and SSE BESS

318 Figure 7.10 [EN010162/APP/6.3.7.10] illustrates changes to views arising from the Development in the context of Kelham solar farm and the SSE BESS.

7.9.2.1 Effects on Landscape Character

319 If Kelham solar farm were present, there would be a reduction in the extent of changes to landscape character, as views of the nearby BESS and 400 kV substation which form part of the Development would not alter the character of the land within Kelham solar farm. This would mean that Small scale changes to character would not arise in the fields to the north and east of the BESS, such that effects of the Development in this scenario would be very slightly reduced from those identified in section 7.7 for the River Meadowlands and Village Farmlands LCTs. Given that parts of the Development would still be within those LCTs, this minor reduction in effects would not alter the magnitude of impact or level of effects which would remain as identified in section 7.7.

- 320 No effects on character were identified to the south of the A617 arising from the Development, and the presence of the SSE BESS beyond the existing large hedges on the south side of the road would not alter effects arising from the Development in the area north of the A617.

7.9.22 Effects on Visual Receptors

- 321 Visual receptors that may experience different effects in this cumulative development scenario include:
- Group A) Between Micklebarrow Hill and Kelham;
 - Walkers using the Trent Valley Way; and
 - Road users on the A617.
- 322 As shown by Figures 7.6 [EN010162/APP/6.3.7.6] and 7.10 [EN010162/APP/6.3.7.10], effects that would be different if Kelham solar farm were present would be as follows:
- At viewpoint 45 on the A617/Trent Valley Way, the scale of change arising from the Development would be Negligible as the foreground of this view would be occupied by Kelham solar farm; and
 - Near viewpoint 27 on the footpath over Micklebarrow Hill, the scale of change arising from the Development would be Small scale as the BESS and substation would be seen in a part of the view where Kelham solar Farm would be openly visible immediately beyond.
- 323 These very localised minor changes to effects would not alter the magnitude of impact or level of effects which would remain as identified in section 7.7.
- 324 Effects on other views would be unchanged, including from the A617 as it passes the SSE BESS. In this stretch of the route, existing hedges would largely screen the SSE BESS and the effects arising from the Development in the more open views to the north would remain unchanged.

7.9.3 Cumulative Effects with Staythorpe Power Station CCS

- 325 The Staythorpe carbon capture project involves the retrofit of carbon capture and treatment equipment to the existing Staythorpe Power Station. The main visual changes to the existing power station would include the installation of various towers and stacks alongside those already present on the site, including four CO₂ absorber towers standing at up to 130 m AOD which are notably taller than the existing 75 m tall stacks.
- 326 Given this is a retrofit project on a large, existing power station, the LVIA undertaken by the applicant for that project identifies very limited landscape and visual effects. The only receptors identified as experiencing greater than minor effects by the LVIA for the Staythorpe Power Station CCS are:
- Users of footpaths Averham FP7 and FP8 – which run between the power station and Averham, alongside the River Trent and also form part of the Trent Valley Way; and,
 - People in residential properties at Staythorpe, Averham and on Howpath Close (immediately adjacent to the power station).

7.9.3.1 Effects on Landscape Character

- 327 If the Staythorpe Power Station CCS were present then towers and stacks on the power station site would be slightly more widely visible and slightly more prominent in nearby areas than at present. This would result in the power station becoming a slightly stronger characteristic in the closest parts of the the Village Farmlands and River Meadowlands LCTs than at present. Notable impacts arising from the Development on these LCTs would be confined to areas north of the A617 which are not in the immediate vicinity of the power station.
- 328 The addition of the Development in this context would not give rise effects on either LCT that would noticeably differ from those of the Development alone, set out in TA A7.5 [EN010162/APP/6.4.7.5].

7.9.3.2 Effects on Visual Receptors

- 329 Visual receptors that may experience different effects in this cumulative development scenario include:
- Group A) Between Micklebarrow Hill and Kelham;
 - Walkers using the Trent Valley Way; and
- 330 Road users on the A617. Users of routes within Group A who would experience a greater than negligible scale of change due to the Development would mostly be located north of the A617, where public rights of way pass in close proximity to the BESS (Work no. 5a) and 400 kV substation (Work no. 5b). Where visible from these routes, the Staythorpe Power Station CCS project would be a relatively distant feature seen above and beyond layers of intervening vegetation and generally in the context of the existing power station stacks. If the Staythorpe Power Station CCS project were already present, it would be a peripheral feature in views from this group of routes and the scale of change to views and level of effects would be no different to those identified in section 7.7.
- 331 As set out in TA A7.5 [EN010162/APP/6.4.7.5], users of the Trent Valley Way would experience Negligible magnitude impacts as a result of the Development. This would remain the case if the Staythorpe Power Station CCS project were already present.
- 332 Effects for road users on the A617 from the Development would arise due to views of the BESS and 400 kV substation through gaps in roadside vegetation over a short stretch of the route. As illustrated by viewpoint 49, dense roadside scrub and evergreen trees obscure views towards towards the Staythorpe Power Station from this stretch and if the CCS project were already present then the addition of the Development would result in effects the same as described for the development alone in TA A7.5 [EN010162/APP/6.4.7.5].

7.10 SUMMARY OF LIKELY EFFECTS

7.10.1 Scope and Purpose

333 This assessment describes the existing landscape and views, considers their sensitivity to change and identifies changes likely to arise from the Development, providing judgements of the importance of the effects arising.

7.10.2 Design and mitigation

334 Key measures to mitigate landscape and visual effects include:

- Site selection avoids designated landscapes;
- Site selection for panel areas avoids more sensitive landscape character types, focussing on larger scale, flatter arable landscapes;
- Visibility from settlements is minimised in the selection of solar panel areas and locations for the substations and BESS;
- Panels would be set back behind existing hedges which would be gapped up and grown taller to provide screening;
- New hedgerow planting would be provided around solar areas where hedges are absent and tree planting along northern boundaries and around substations/BESS where shading of panels is not a consideration;
- Seeding and management of panel areas to establish meadows;
- Diversion of Public Rights of Way (PRoW) to avoid routes passing through the middle of panel areas where there would be open views of solar panels to both sides;
- Selection of fencing, CCTV and lighting to minimise their visual impact;
- Retention of existing trees and hedges by using 15 m root protection zones and 5 m set backs from field boundaries in the design of development areas, and use of existing field accesses where possible; and
- Reinstatement of hedges where they are removed for cable laying.

335 In order to mitigate effects on residential visual amenity, solar panels would be set back a minimum of 100 m from homes where panel areas would be openly visible during early construction and operation.

336 In addition, there would be enhancements to the landscape provided as follows:

- Woodland, hedgerow and tree planting;
- A new way-marked circular route making use of existing and diverted PRoW and new permissive routes;
- Permissive routes providing better connectivity where routes are currently absent;
- Interpretation and wayfinding, benches and picnic benches to improve to ease of access and highlight features of local cultural and heritage value or provide understanding of aspects of the project such as energy generation and biodiversity enhancements;

- Picnic areas and community orchard to provide new facilities for access and recreation; and
 - Measures to provide biodiversity net gain.
- 337 Each of these enhancement measures would provide long-term or permanent improvements to the landscape fabric and/or aspects of landscape value (recreational amenity and access, biodiversity, cultural and heritage value).

7.10.3 Effects During Construction and Early Operation

7.10.3.1 Landscape Character

- 338 Significant effects would arise on the landscape character type (LCT) which would host most of the Development as a result of the physical presence of the Development within it and locally characteristic rural views of villages separated by gently undulating arable fields bordered by hedges, changing to include close views of solar panels and the Intermediate Substations. There would also be areas of ecological enhancement and new woodland, tree and hedgerow planting within both LCTs which would gradually improve the landscape condition from the commencement of the operational life of the Development, continuing to do so after decommissioning.
- 339 The two similar landscape character types - Mid-Nottinghamshire Farmlands / Village Farmlands with Ancient Woodlands LCT is a larger scale, flatter arable landscape of Medium sensitivity with hedges and woodlands characteristically dividing the fields. Ancient woodland is a characteristic component of the LCT.
- 340 Medium-term changes before proposed planting matures would give rise to impacts of Large/medium magnitude on the LCT and effects would be Major/moderate, Adverse and significant.
- 341 Effects on other LCTs would not be significant. The other three host LCTs would only have small areas of the Development in more transitional areas, with similarities to the LCT described above. The Trent Washlands / Village Farmlands LCT is similar to the Village Farmlands with Ancient Woodlands LCT, but is a little more open with some steeper river bluff slopes. The remaining two landscapes are also similar to each other and the Mid Nottinghamshire Farmlands / Meadowlands LCT and Trent Washlands / River Meadowlands LCT are both smaller scale pastoral landscapes with an irregular field pattern and frequent tree cover along field boundaries and streams. Both the presence and visibility of the Development within these areas would be more limited. Effects on these three LCTs would be Moderate or Moderate/minor, Adverse and not significant.
- 342 The Development is Mostly contained within the Mid Nottinghamshire Farmlands RCA and effects on the RCA would be Moderate, Adverse and not significant. Only small areas of the Development would be within the adjacent Trent Washlands RCA, including part of the BESS area, a small area of solar arrays near Carlton-on-Trent and areas of ecological mitigation. Effects on this RCA would be Moderate/minor, Adverse and not significant.

- 343 The host National character area is NCA 48 Trent and Belvoir Vales, an extensive area of lowland landscape focussed along the valley of the Trent which has a strong association both historically and at present with energy generation and large-scale infrastructure. In this context, effects arising from the Development would not be significant.

7.10.3.2 Visual Receptors

- 344 Effects on visual receptors would arise as a result of changes to views to include visibility of the short-term construction activities and the Development (solar panels, substations and/or the BESS) before planting matures. In many locations visibility would be reduced within 1-3 years where the mitigation measure is the growth of existing hedges. The screening of views would take longer (7-10 years) where new hedges or woodland are proposed.
- 345 Significant effects would arise as a result of Medium-term changes to views for the following visual receptors:
- Users of public rights of way:
 - Between Micklebarrow Hill and Kelham;
 - Between Caunton and the A617;
 - Between Caunton, Eakring and Kneesall – east of Eakring and around Maplebeck;
 - Between Kneesall, Caunton and Ossington Airfield;
 - Between the A1, Ossington and Moorhouse; and
 - Between Carlton-on-Trent, Ossington and Norwell.
 - Users of local roads:
 - Between Caunton, Eakring and Kneesall;
 - Between Kneesall, Caunton and Ossington Airfield; and
 - Between Carlton-on-Trent, Ossington, Cromwell and Norwell – in the north of this area.
- 346 For most of these receptors the extent and/or scale of views would give rise to impacts of Large/medium magnitude and effects which would be Major/moderate, Adverse and significant. Slightly greater effects would arise for users of public rights of way between Carlton-on-Trent, Ossington, Cromwell and Norwell where the solar areas and main footpath network closely coincide; and as a result, the magnitude of impact would be Large and effects would be Major/moderate, Adverse and significant. Large magnitude impacts would also arise for users of the local roads in the north of the areas between Carlton-on-Trent, Ossington, Cromwell and Norwell where the local road network closely coincides with the solar areas and views of solar panels would arise through narrow woodland belts, in open views across Ossington airfield, and looking over hedges towards panels on rising ground. Effects on users of these routes would be Major/moderate, Adverse and significant.
- 347 In all cases the changes to views giving rise to significant impacts would primarily or entirely arise from Large and Large/medium scale changes to

views from areas adjacent to or within up to 0.4 km of the Development, and Medium-scale changes to views within up to 0.7 km of the Development, extending to 1.1 km across the area of higher ground between Eakring, Kersall and Kneesall.

- 348 No significant effects would arise for users of long distance recreational or transport routes.

7.10.3.3 Designated Areas

- 349 There would be no effects on designated landscapes.

7.10.4 Effects During Operation and Decommissioning

7.10.4.1 Landscape Character

- 350 Whilst the establishment of mitigation planting and areas of ecological enhancement would continue to reduce visibility of the Development and improve the landscape condition, effects on landscape character would remain as assessed during early operation.

7.10.4.2 Visual Receptors

- 351 No new significant effects on visual receptors would arise during this stage of the development. Significant effects would continue to arise as a result of changes to views for the following visual receptors:

- Users of public rights of way:
 - Between Micklebarrow Hill and Kelham;
 - Between Caunton and the A617;
 - Between Caunton, Eakring and Kneesall – east of Eakring and around Maplebeck;
 - Between Kneesall, Caunton and Ossington Airfield;
 - Between the A1, Ossington and Moorhouse, and
 - Between Carlton-on-Trent, Ossington and Norwell.

- 352 For most of these groups the effects would reduce slightly in scale and/or extent as a result of the maturation of mitigation planting, but Large scale changes to views from routes which pass through panel areas as a result of diversions, or the enclosure of currently open views by hedges would continue to give rise to significant effects. The magnitude of impact would reduce to Medium for routes between Caunton and the A617; between Micklebarrow Hill and Kelham; and between Caunton, Eakring and Kneesall – east of Eakring and around Maplebeck.

- 353 For some receptors identified as experiencing significant effects during early operation, the growth of mitigation planting would reduce visibility of the Development to the extent that effects would not be significant, as follows:

- Local road users throughout the study area – effects would reduce to Moderate and adverse for local road users between Kneesall, Caunton and Ossington Airfield and between Carlton-on-Trent, Ossington and Norwell where there would be remaining visual changes as a result of visibility of solar panels on sloping ground seen over roadside hedges

and views of hedges across the former Ossington airfield; and would reduce to Minimal between Caunton, Eakring and Kneesall where hedges would largely screen visibility of the Development.

7.10.4.3 Designated Areas

354 There would be no effects on designated landscapes.

7.10.5 Effects After Decommissioning

7.10.5.1 Landscape Character

355 After decommissioning, there would be no significant effects. Areas managed for ecological enhancement and new and gapped-up hedgerows around previously developed areas are assumed to remain in situ and would give rise to Beneficial or Neutral changes to landscape character within the host LCTs. Retained Intermediate and 400 kV substations would continue to give rise to small areas of Adverse effects.

356 These changes would be greatest for the Mid-Nottinghamshire Farmlands / Village Farmlands with Ancient Woodlands LCT (and the associated Mid Nottinghamshire RCA) where establishment of an improved hedgerow network and new woodlands along with continuing to host retained substations would give rise to Minor, Neutral effects.

7.10.5.2 Visual Receptors

357 For visual receptors after decommissioning, the main changes to views would be a reduction in openness from the more established hedges and new woodlands throughout the area, the continued enclosure of some rights of way within double hedges where views are currently open and the diversion of some rights of way along less visually open routes.

358 The only remaining significant effects would be for users of Public Rights of Way between Carlton-on-Trent, Ossington, Cromwell and Norwell where the diversions of routes and the enclosure of the footpaths between Ossington Road and Hill Farm and around Whiteley Plantation would continue to give rise to impacts of Large magnitude and effects which would be Major/moderate and Adverse.

7.10.5.3 Designated Areas

359 There would be no effects on designated landscapes.

7.10.6 Night-time Effects

360 Lighting during construction and decommissioning would only be used as required and in the very short-term during works in each part of the Order Limits.

361 Lighting during operation would only be provided at the substations and would only be in use if required for maintenance or security purposes during hours of darkness.

362 No significant effects would arise as a result of lighting associated with the Development.

7.10.7 Cumulative Effects

- 363 Cumulative effects with existing, and consented developments which are expected to be completed are considered, with the effects reported above.
- 364 Recently consented developments and developments in planning of particular relevance to this chapter include the SSE BESS to the west of Averham, the Staythorpe Power Station CCS and One Earth, Kelham and Foxholes solar farms. Each of these has been considered in the assessment of cumulative effects. The only cumulative scenario in which effects arising from the Development would be different is in the context of Kelham solar farm.
- 365 If Kelham solar farm were present, the effects of the Development would be slightly reduced in the area immediately northeast and east (where Kelham solar farm would be located), and in views from Micklebarrow Hill where the Development would be seen in front of open views of Kelham solar farm. These reductions in effects would be limited in both extent and degree and would not be sufficient to alter the magnitude of impact or level of effects summarised above.

7.10.8 Effects on Residential Visual Amenity

- 366 TA A7.6 [EN010162/APP/6.4.7.6] provides an assessment of effects on Residential Visual Amenity. All of the 142 homes within 250 m of the Development prior to design changes made after the PEIR stage have been considered in the assessment. The assessment has been updated to reflect the design changes and undertake a detailed consideration of those homes identified as receiving either Large or Large/medium magnitude impacts in the PEIR stage preliminary assessment.
- 367 The assessment identifies that effects would not be at the highest level of magnitude (Large) for any properties and effects would not exceed the RVA threshold. The most affected properties that would receive Large/medium magnitude impacts and are listed below:
- Caunton Common Barn;
 - Caunton Lodge Farm;
 - Mainwood Farm;
 - Willoughby Farm; and
 - Willoughby Barn.

7.11 STATEMENT OF SIGNIFICANCE

- 368 Receptors for which effects which are greater than Minimal are included in Tables 7.6 and 7.7 below. **Significant effects are shown in bold.**

Table 7.6: Receptors for which significant effects are identified

Receptor	Sensitivity	Magnitude; Level of Effect		
		Construction and Early Operation	Operation and Decommissioning	After Decommissioning
Character areas/types				
Mid-Nottinghamshire Farmlands / Village Farmlands with Ancient Woodlands LCT	Medium	Large/medium; Major/moderate, Adverse	Large/medium; Major/moderate, Adverse	Small; Minor, Neutral
Visual receptors				
Group A: Between Micklebarrow Hill and Kelham – PRow users	High/medium	Large/medium; Major/moderate, Adverse	Medium; Major/moderate, Adverse	Medium/small; Moderate, Adverse
Group B: Caunton to A617 – PRow users	High/medium	Large/medium; Major/moderate, Adverse	Medium; Major/moderate, Adverse	Medium; Moderate, Adverse
Group C: Between Caunton, Eakring and Kneesall – PRow users east of Eakring and around Maplebeck	High/medium	Large/medium; Major/moderate, Adverse	Medium; Major/moderate, Adverse	Small; Moderate/minor, Neutral
Group C: Between Caunton, Eakring and Kneesall – Road users	High/medium	Medium; Major/moderate, Adverse	Negligible; Minimal, Neutral	Negligible; Minimal, Neutral

Receptor	Sensitivity	Magnitude; Level of Effect		
		Construction and Early Operation	Operation and Decommissioning	After Decommissioning
Group D: Between Kneesall, Caunton and Ossington Airfield – PRow users	High/medium	Large/medium; Major/moderate, Adverse	Large/medium; Major/moderate, Adverse	Medium; Moderate, Adverse
Group D: Between Kneesall, Caunton and Ossington Airfield – Road users	High/medium	Large/medium; Major/moderate, Adverse	Medium/small; Moderate, Adverse	Small; Moderate/minor, Adverse
Group E: Between A1, Ossington and Moorhouse – PRow users	High/medium	Large/medium; Major/moderate, Adverse	Large/medium; Major/moderate, Adverse	Medium; Moderate, Adverse
Group F: Between Carlton-on-Trent, Ossington, Cromwell and Norwell – PRow users	High/medium	Large; Major/moderate, Adverse	Large; Major/moderate, Adverse	Large; Major/moderate, Adverse
Group F: Between Carlton-on-Trent, Ossington, Cromwell and Norwell – Road users in <u>north</u> of area	High/medium	Large; Major/moderate, Adverse	Medium; Moderate, Adverse	Negligible; Minimal, Neutral

Table 7.7 Receptors for which non-significant effects are identified

Receptor	Sensitivity	Magnitude, Level of Effect		
		Construction and Early Operation	Operation and Decommissioning	After Decommissioning
Character areas/types				
Trent Washlands / Village Farmlands LCT	Medium	Medium; Moderate, Adverse	Medium; Moderate, Adverse	Negligible; Minimal, Neutral
Mid Nottinghamshire Farmlands / Meadowlands LCT	High/medium	Medium/small; Moderate, Adverse	Medium/small; Moderate, Adverse	Negligible; Minimal, Neutral
Trent Washlands / River Meadowlands LCT	Medium	Medium/small; Moderate/minor, Adverse	Medium/small; Moderate/minor, Adverse	Small/negligible; Minor/minimal, Neutral
Mid Nottinghamshire Farmlands RCA	Medium	Medium; Moderate, Adverse	Medium; Moderate, Adverse	Small; Minor, Neutral
Trent Washlands RCA	Medium	Medium/small; Moderate/minor, Adverse	Medium/small; Moderate/minor, Adverse	Negligible; Minimal, Neutral
NCA 48 Trent and Belvoir Vales	N/A	Not significant	Not significant	Not significant
Visual receptors				
Kersall	High/medium	Small; Moderate/minor, Adverse	Small; Moderate/minor, Adverse	Negligible; Minimal, Neutral

Receptor	Sensitivity	Magnitude, Level of Effect		
		Construction and Early Operation	Operation and Decommissioning	After Decommissioning
Caunton to A617 – Road Users	High/medium	Medium/small; Moderate, Adverse	Negligible, Minimal, Neutral	Negligible; Minimal, Neutral
Between Caunton, Eakring and Kneesall – PRow users around Kersall and Kneesall	High/medium	Small; Moderate/minor, Adverse	Small; Minor, Adverse	Negligible; Minimal, Neutral
Between A1, Ossington and Moorhouse – Road users	High/medium	Medium; Moderate, Adverse	Small; Minor, Adverse	Negligible; Minimal, Neutral
Between Carlton-on-Trent, Ossington, Cromwell & Norwell – Road users in south of area	High/medium	Small; Minor, Adverse	Negligible, Minimal, Neutral	Negligible; Minimal, Neutral
A1	Low	Small Minor, Adverse	Small Minor, Adverse	Negligible; Minimal, Neutral
A616	Medium	Medium/small; Moderate/minor, Adverse	Small, Minor, Neutral	Negligible; Minimal, Neutral
A617	Medium	Small; Minor, Adverse	Negligible; Minimal, Neutral	Negligible; Minimal, Neutral
East Coast Main Line	Medium/low	Medium; Moderate/minor, Adverse	Small; Minor, Adverse	Negligible; Minimal, Neutral

Receptor	Sensitivity	Magnitude, Level of Effect		
		Construction and Early Operation	Operation and Decommissioning	After Decommissioning
Robin Hood Way	High/medium	Small; Moderate/minor, Adverse	Small; Minor, Adverse	Small; Minor, Adverse