

Nottinghamshire County Council

# Local Impact Report – One Earth Solar Farm

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# 1. Introduction

- 1.1. Nottinghamshire County Council (NCC) has prepared this report in accordance with the advice and requirements set out in the Planning Act 2008 and the Nationally Significant Infrastructure Projects: Advice for Local Authorities published by the Planning Inspectorate in August 2024.
- 1.2. The guidance states that when the Planning Inspectorate decides to accept an application for a Development Consent Order (DCO) it will invite the relevant local authorities to prepare a Local Impact Report (LIR). The LIR should give details of the likely impact of a project on the local authority's area and should indicate where the local authority considers that the proposed development would have a positive, negative or neutral effect on their area.
- 1.3. The LIR may include any topics that the local authority considers to be relevant to the impact of the development within its administrative area and is a means by which its existing body of knowledge and evidence on local issues can be fully and robustly reported. It is intended to be a technical assessment of impact and does not attempt to conclude on the acceptability of the proposals. The LIR therefore neither sets out objection or support for the application.
- 1.4. In producing the LIR, the County Council has not sought the views of local parish councils and local interest groups as to any particular matters that should be reflected in the report because the parish councils and other local interest groups have the opportunity, through the consultation process, to make their observations direct to the Planning Inspectorate.
- 1.5. The LIR only covers matters and issues where NCC has a statutory function or holds expertise at an officer level, supplemented by external advice as needed. The topics covered are listed below. For all other matters not listed below, NCC will defer to Bassetlaw District Council (BDC) and Newark and Sherwood District Council (NSDC) as the relevant Local Planning Authorities.
  - Historic Environment
  - Biodiversity
  - Flood Risk
  - Transport and Access
  - Landscape and Visual
  - Waste Management
- 1.6. Unless otherwise specified, the LIR only relates to the proposed development insofar as it affects the administrative area of Nottinghamshire. It should be noted that part of the proposal is located within Lincolnshire and therefore West Lindsey District Council (WLDC) and Lincolnshire County Council (LCC) will also be relevant local authorities invited to submit a LIR.
- 1.7. For each matter above, the LIR will outline the key local issues relevant to the part of the proposal that is located within Nottinghamshire and the extent to which the applicant addresses the issues by reference to the application documentation, including the Environmental Statement (ES) and associated appendices and management plans. The LIR will comment on the effect they would have on the area, either positive, negative or neutral and the magnitude of that effect.

## 2. Project Proposal

- 2.1. The order limits of the 'One Earth Solar Farm' consists of approximately 1,409 hectares (ha) of land, comprising agricultural fields located to the east and west of the River Trent, together with a network of hedgerows, drains and ditches, and blocks of woodland. At its maximum, the Order Limits extend approximately 4.5km in a north-south direction and approximately 8km in an east-west direction. The River Trent runs through the proposal site on a general south-north alignment flowing from Staffordshire northwards toward the Humber Estuary.
- 2.2. Approximately 1,203ha of the Order Limits fall within Nottinghamshire and the remaining 206ha of the Order Limits fall within Lincolnshire. The Order Limits extends across the districts of Newark and Sherwood and Bassetlaw (Nottinghamshire) and West Lindsey (Lincolnshire).
- 2.3. Within Nottinghamshire, the nearest settlements comprise the following villages:
- North Clifton and South Clifton - within 500m of the nearest boundary to the east
  - Dunham - within 800m of the nearest boundary to the north
  - Fledborough - within 50m of the nearest boundary to the east
  - Ragnall - within 50m of the nearest boundary to the west
  - Thorney - within 500m to the south and east of the boundary
- 2.4. The project comprises the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) array electricity generating facility. The project includes solar PV panels, Battery Energy Storage Systems (BESS), onsite substations and associated grid connection infrastructure which will allow for the generation and export of electricity to the proposed National Grid Substation at High Marnham, to the southwest of the order limits. The proposals also include highway works to facilitate access and landscape and ecology works.
- 2.5. The construction phase is anticipated to commence in 2027 and be completed by 2029. The development is expected to be operational for up to 60 years from final commissioning.
- 2.6. There are several other NSIP solar developments proposed within a short distance of the proposed order limits of this project, each at various stages within the DCO process. Within Nottinghamshire, this includes the Great North Road Solar Park (4.84km from the proposal site) and Steeple Renewables Project (10.50km from the proposal site), both of which have recently been submitted for examination. There are also four nearby NSIPs located within Lincolnshire, but which share a cable route corridor into Nottinghamshire, and which have either been consented or await a decision. The cumulative impact of this project is therefore significant.
- 2.7. To allow sufficient flexibility for the final design to be confirmed post consent, the applicant has applied the principles of the 'Rochdale Envelope' to inform the environmental assessment work. This involves the technical assessments being undertaken and based on a defined 'envelope' within which the project will be delivered, featuring maximum and minimum design parameters, so that an assessment of the reasonable 'worst case scenario' can be undertaken. Each environmental topic has used the worst-case parameters within the 'Rochdale Envelope' to determine the potential for significant effects and identify suitable mitigation measures.

### 3. Relevant Planning History

- 3.1. NCC is the Minerals and Waste Planning Authority for Nottinghamshire and is therefore responsible for determining planning applications for such developments. There are no active minerals and waste sites in and around the proposed order limits which are relevant to the project.
- 3.2. NCC is also responsible for determining applications submitted for its own developments. A planning application to create a multi-user route on an old minerals railway line running through the proposal site was granted in August 2007 and details are included in planning history below.

*Table 1 – Planning History Nottinghamshire County Council: Applications of Note*

<b>Application Reference</b>	<b>Site</b>	<b>Development description</b>	<b>Distance from project (km)</b>	<b>Status</b>
<a href="#"><u>30/07/00005</u></a>	Disused railway line between High Marnham Junction & Church Lane, North Clifton, near Newark	Construction of a 2.5m wide Permissive Cycle Route on former railway line between High Marham Junction & Church Lane, North Clifton, near Newark	Within the order limits of the project	Granted and constructed

- 3.3. The disused railway line referred to above is National Cycle Route (NCR) 647 and is managed by NCC on behalf of Sustrans and Railway Paths Ltd. It is noted that the Outline Public Rights of Way Management Plan (OPROWMP) states that NCR 647 will remain open during construction and implies that any interaction with construction activity is unlikely to have an impact on its operation.
- 3.4. However, NCC wishes to secure explicit confirmation within the OPROWMP that any damage caused to the site because of the works including to trees, shrubs, vegetation, verges, path surfaces, signage, fences, drainage and all and any other infrastructure will be made good, with a pre- and post-works condition assessment carried out by the applicant. NCC also seeks confirmation that any appropriate measures will be put in place to ensure the safety of users, and that signage will be installed to warn users of any disruption. This should include any crossing points that are required during the construction phase, details of which shall have been agreed prior to their installation, and which shall give priority to any users of the multi-user route. This is necessary in order to minimise the impact on users of the NCR including pedestrians and cyclists.

## 4. Planning Policy Context

4.1. The Secretary of State (SoS) is required to have regard to any relevant national policy statement (NPS), amongst other matters, when deciding whether to grant a DCO. Where there is a relevant NPS in place DCO applications are determined in line with Section 104 of the Planning Act 2008.

4.2. The following NPSs are considered relevant to the determination of this DCO Application and set out the assessment principles for judging impacts of energy projects:

- EN-1 – Overarching National Planning Policy Statement for Energy
- EN-3 – National Planning Policy Statement for Renewable Energy Infrastructure

4.3. The Development Plan Framework for the impacted area of Nottinghamshire includes the:

- Bassetlaw Local Plan 2020-2038 (May 2024)
- Newark and Sherwood Amended Core Strategy (March 2019) and Allocations and Development Management Development Plan Document (July 2013)
- Nottinghamshire and Nottingham Replacement Waste Local Plan (December 2013)
- Nottinghamshire Minerals Local Plan (March 2021)

4.4. Nottinghamshire County Council is currently preparing a new Waste Local Plan which, once adopted, will replace the adopted Waste Local Plan (2001) and Waste Core Strategy (2013). The Plan has been examined by the Planning Inspectorate and, subject to several main modifications, was found sound. It is anticipated to be adopted by NCC in September 2025.

4.5. The subsequent section on the assessment of impacts will refer to relevant national and local policies, as far as they relate to the matters which are covered within this LIR. Other relevant policies from the development plan framework will be referred to within the district council LIRs.

## 5. Assessment of Impacts

This section of the report provides comments from specialist service areas on the technical assessments within the Environmental Statement (ES) submitted with the application and the likely impacts of the proposed development upon Nottinghamshire, focussing on the issues relevant to NCC.

### 5.1. Built Heritage

#### 5.1.1. Local Policy:

- Bassetlaw Local Plan
  - Policy ST40: The Historic Environment
  - Policy 41: Designated and Non-Designated Heritage Assets
- Newark and Sherwood Amended Core Strategy
  - Core Policy 14: Historic Environment

#### 5.1.2. National Policy:

- Section 5.9 of EN-1 (Historic Environment) acknowledges that the construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment above, at and below the surface of the ground (5.9.1);
- Sections 5.9.9 to 5.9.15 lays out requirements for the ES assessment to provide a description of the significance of the heritage assets affected by the proposed development and the applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents;
- Sections 5.9.16 to 5.9.21 presents requirements for mitigation of development impacts on archaeology identified within the order limits.
- Additional guidance for Renewable Infrastructure and Cultural Heritage is presented at Sections 2.10.107 to 2.10.119 of EN-3 and expands slightly on guidance from EN-1.
- Section 2.10.112 and Footnote 94 of EN-3 require assessment to be include information on the Historic Environment Record (HER) and the results of pre-determination evaluation and that this in turn should inform design of the scheme.

5.1.3. There has been active engagement between the host authorities and the heritage consultants and an onsite meeting in summer 2024 which highlighted opportunities for mitigating impacts on the setting of heritage assets including Ragnall village and several churches around Fledborough. It is noted that in response to the statutory consultation in 2024, the applicant made changes to the proposed development which has included removal of solar panels to the southeast of Ragnall and land surrounding Fledborough and also removed land from the order limits in the vicinity of North Clifton and Newton on Trent. These changes will introduce buffers that accommodate the better appreciation of the heritage assets. Notwithstanding these changes to the proposed development, the scale of the proposals is such that there will remain a **negative** impact on the wider landscape setting of several built heritage assets.

### 5.2. Buried Heritage

5.2.1. The local and national planning policy context for the historic environment is set out at 5.1.1 - 5.1.2. This context is relevant to both buried and built heritage and so is not repeated here.

- 5.2.2. It is the Council's position that to properly assess the impact of a development upon archaeology, the applicant should provide sufficient desk-based research, non-intrusive survey and intrusive field evaluation to adequately understand the archaeological resource within the scheme and detail the proposed development impacts upon it. This is necessary to design an agreeable Archaeological Mitigation Strategy (AMS) to limit as far as possible the proposed development impacts. The Environmental Statement (ES) must present the full range of findings from this archaeological work and provide an evidential basis for at least an Outline AMS (OAMS) for consideration at Examination
- 5.2.3. The scheme proposes significant solar development over a large area of north Nottinghamshire and Lincolnshire covering approximately 1,409 hectares and in known areas of high archaeological potential and sensitivity as recorded on the Nottinghamshire and Lincolnshire Historic Environment Records (HERs). Within the Order Limits, these include numerous known late Iron Age and Roman settlements along with significant Anglo-Saxon and medieval settlement remains, several of which are protected under the Ancient Monuments and Archaeological Areas Act 1979.
- 5.2.4. The applicant has submitted an Environmental Statement in support of the application and considers archaeology at Chapter 9, Buried Heritage (APP-038). Supporting appendices have also been submitted and comprise:
- Supporting Figures 9.1 – 9.5 (APP-054)
  - Assessment Methodology (APP-109)
  - Archaeological Desk-Based Assessment (DBA) (APP-110, APP-111, APP-112, APP-113, APP-114 & APP-115)
  - Archaeological Geophysical Survey (APP-116, APP-117, APP-118, APP-119, APP-120 APP-121, APP-122 & APP-123)
  - Preliminary Trial Trenching Evaluation Report (APP-124), &
  - List of Buried Heritage Assets Scoped Out (APP-125)
- 5.2.5. The Preliminary Trial Trenching Evaluation Report (APP-124), is not a full report and offers a very brief summary of the results. It is essential that the full report for this work is submitted so that a proper assessment of the data can be scrutinised at Examination.
- 5.2.6. We acknowledge the Applicant's assessment work to date and Chapter 9 incorporates and analyses the data derived from the DBA, geophysical survey and the limited evaluation trenching undertaken. Section 9.3.5 implies that all significant areas have been subject to trial trench evaluation, however this is not the case. The applicant's own DBA and geophysical survey identified twenty-nine areas of significant archaeological potential. Twenty of these have yet to be adequately evaluated with trial trenching and consequently these areas still lack necessary details on the presence, extent, depth, character, date, state of preservation and significance of any surviving archaeology.
- 5.2.7. Section 9.3.33 recognises the limitations of non-intrusive survey (geophysics in this case). Some features are not easily prospected due to low variations in features from background readings or from masking deposits. Reliance upon a single non-intrusive survey technique will also likely lead to significant confirmation bias in the resulting data. We recommend that areas that return 'blank' readings in the geophysics results be tested for reliability with evaluation



trenching, particular in areas of high development impact. Section 9.3.36 confirms the need for this, however much of the site has not yet been tested and we strongly reject the assertion in Section 9.3.37 that the work to date delivers the required evidence. In this matter the document is contradictory in terms of recognising the issue but then accepting a limited level of intrusive work to address it.

- 5.2.8. Given the essential nature of adequate evaluation as the basis to deal appropriately with the developmental impacts and effectively manage development risk, NCC and LCC are deeply concerned regarding the outstanding work, and we would expect the applicant to provide further details for completion of an acceptable programme of evaluation trenching.
- 5.2.9. Section 9.5.2 does make provision for additional trenching as part of the post-consent AMS, however this may leave the discovery of significant archaeology very late in the programme when it is difficult to accommodate, and leading to potential programme delays, additional cost increases and an unfavourable outcome for the archaeology discovered. Care will need to be taken to ensure the results are available in good time to inform a reasonable AMS which must be agreed prior to the commencement of any development or enabling works.

#### Proposed Impacts

- 5.2.10. Section 9.3.40 provides a list of potential direct ground impacts from construction. Where these occur and archaeology is present, the effect is likely to be significant, adverse and negative. However, the list is incomplete and lacking detail. For instance, the Ecology Management Plan (APP-179) specifies groundworks including 'landscape and biodiversity enhancement measures; habitat creation and management, including earthworks, landscaping, means of enclosure, and laying and construction of drainage infrastructure', none of which has been accounted for in any detail in Chapter 9.
- 5.2.11. Impacts from construction activity have not been properly considered beyond a brief assertion in Section 9.5.4 or have been dismissed in Section 9.5.12. These would normally include groundworks for temporary compounds and haul roads, compaction/vibration from vehicle/plant tracking and other related construction activity. Where these occur and archaeology is present, we maintain that the impact is likely to be significant, adverse and negative, especially in areas of poor or shallow ground conditions.
- 5.2.12. Impacts relating to the operational life of the scheme have also received little consideration or have been dismissed in Section 9.5.19. The oOEMP (APP-177) makes provision for preservation areas, but does not address the need for more significant works. Maintenance and refits will be necessary and may be not subject to future planning requirements. The limited operational lifespan of the panels will require their replacement, including likely infrastructure upgrades and further assessment for archaeology will not be possible once the initial construction has been completed. Therefore, operational impacts are also likely to have significant, adverse and negative effects on any surviving archaeology present that has not been adequately assessed or been subject to mitigation works at this stage.
- 5.2.13. Decommissioning has also received little consideration in terms of archaeology beyond an assumption that there will be no impact in Section 9.5.24 or in the oDEMP (APP-178). At the

very least, the oDEMP would benefit from the inclusion of an Archaeological Clerk of Works to help manage any resulting strategy required.

- 5.2.14. Section 9.6.4 rates the impact of enabling and construction works upon buried heritage assets to a degree that is reductive and unfounded. For example, full removal of archaeology is total destruction and therefore cannot be a 'medium' impact as described, and compression or 'partial removal' of archaeology is not 'negligible': it is the damage and destruction of surviving archaeology without recording.

*Proposed Mitigation*

- 5.2.15. The mitigation proposals in Sections 9.5.27 to 9.5.31 provide for avoidance of sensitive archaeology where possible, or a programme of excavation, monitoring and recording where not. While this high-level approach would be broadly agreeable (as with any scheme), it is essential that a more detailed OAMS be presented at Examination.
- 5.2.16. The assessment of individual archaeological sites follows from section 9.6.6 to 9.6.224. We do not agree with the weighting of impacts offered by the applicant which are unrealistic. Section 9.6.4 offers an assessment of the importance of archaeological sites and the extent of impacts from developmental works, however these are both dismissively low. In order to have 'Negligible to Minor' Significance of Effect on archaeological sites which have 'High' Magnitudes of Impact, evaluation and mitigation would need to be very extensive otherwise the impact will be significant, adverse and negative.
- 5.2.17. The document repeatedly uses the phrase 'When appropriate and practicable', or 'where necessary and practicable,' in relation to mitigation work. We object to the use of this phrase where mitigation requirements are identified and deemed necessary. It would lead to development impacts being significant, adverse and negative where archaeology is present and an unenforceable programme of work.
- 5.2.18. The applicant has recently consulted the Council's advisors on a more detailed, draft Outline Written Scheme of Investigation which presents a programme of additional work and will be submitted at a later Deadline. This does go some way to addressing the concerns raised above and we hope will form the basis for a more detailed OAMS and complete assessment of development impacts before the Examination ends.
- 5.2.19. The OAMS must provide for completion of an appropriate scheme of evaluation trenching which will identify each archaeologically sensitive area, the impacts from the proposed development and provide a detailed programme of archaeological works for each that will offset those impacts. This will include excavation, monitoring, preservation in-situ (archaeological exclusion zones) and design solutions. The currently submitted proposals are insufficient and limited and the impact from development remains adverse and negative.
- 5.2.20. The wording of an appropriate archaeological DCO requirement will depend on the level of assessment work that has been completed by the close of Examination. We recommend that if some evaluation trenching is still outstanding, then wording similar to that for the recently approved Mallard Pass scheme would be appropriate. It is likely that the implementation of further post-consent assessment work and mitigation work will be complicated and we are

currently working with Solar Energy UK and the Chartered Institute for Archaeologists to formulate appropriate requirement wording in such instances.

- 5.2.21. The evidence presented to date indicates the presence of significant archaeology across the site but does not yet provide sufficient site-specific detail on nature of much of it or the development impacts. Further, it does not yet offer an agreeable programme of mitigation work to offset those impacts. Therefore, the Council's position must be that the development will have a **significant, adverse and negative impact** on the archaeological resource encountered in the Order Limits.
- 5.2.22. This position will alter when the applicant presents an agreeable programme for completion of the evaluation and assessment work and is able to submit their detailed OAMS for Examination, based on results of all the archaeological work and including the full evaluation report.

### 5.3. Biodiversity

#### 5.3.1. Local Policy:

- Bassetlaw Local Plan:
  - Policy ST38: Biodiversity and Geodiversity
  - Policy ST39: Trees, Woodlands and Hedgerows
- Newark and Sherwood Amended Core Strategy:
  - Core Policy 12: Biodiversity and Green Infrastructure

#### 5.3.2. National Policy:

- Section 5.4 of EN-1 makes clear that the ES should clearly set out any effect on designated sites of ecological importance, protected species and habitats and other species identified as being of principal importance. The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity conservation interests and include appropriate avoidance, mitigation, compensation and enhancement measures as an integral part of the development.
- Section 2.10.75 of EN-3 provides additional guidance on ecological risks associated with renewable energy infrastructure and particular issues that should be considered by the applicant. Section 2.10.89 confirms that solar farms have potential to increase biodiversity value of a site and should aim to achieve biodiversity net gain by maintaining, extending, or creating new important habitats.

- 5.3.3. NCC has reviewed the Biodiversity Chapter and relevant appendices of the ES and is concerned about some the assessment methodology that has been used and inadequacy of some of the proposed mitigation. These comments highlight key areas of concern relating to specific species and ecological features. At the present time, it is considered that there are gaps in the impact assessment and these mean that the impact upon biodiversity has not been robustly assessed, and that the full extent of required mitigation has not been properly established. This also makes it difficult to conclude whether the impacts of the proposal will be positive, neutral or negative. The highlighted issues can be addressed through further assessment work and development of more robust mitigation. Some of these suggestions may be secured through updates to the Outline LEMP and NCC is willing to engage further with the applicant to agree appropriate mitigation.

### Surveys

- 5.3.4. NCC is concerned that within the limitation section of Chapter 6: Biodiversity Paragraph 6.3.4 states: *Overall, Extended Habitat Surveys covered 1,304 ha of the 1,409 ha within the Order limits. The 105 ha not subject to survey was focused on the High Marnham substation and surrounding areas where access was restricted. This area is associated with transmission cabling only to connect to the National Grid's High Marnham Substation in its present form or an extended version should National Grid receive Development Consent for its North Humber to High Marnham project.*
- 5.3.5. This is again reflected in Section 6.6.15 which states: *The Order limits covers approximately 1,409 ha of which 92.5 percent (1,304 ha) has been subject to detailed habitat survey. The area not surveyed is around High Marnham Substation where no access was granted (the area for part of the cable connection only).*
- 5.3.6. This is a very large area which has not been subject to detailed surveys, further clarification to whether these areas are subject to protected species surveys should be sought. Specifically, why the area around the High Marnham Substation has not been surveyed, when access issues were the constraint. Surely this area will need accessing for the proposals and therefore access should not be an issue to areas within the Order Limits.
- 5.3.7. Within this area there is Marnham Railway Yard LWS, Fledborough to Harby Dismantled Railway LWS and Old Trent, Marnham LWS which support protected species. The transmission cabling will impact habitats such as hedgerows and therefore these need to be accounted for. In addition, the National Grid project will not have taken account for the loss or impact of these habitats. Again, this has been referenced in paragraph 6.9.2 which states:
- Within the area of 'land for potential cable route' shown on the Illustrative Landscape Masterplan around the High Marnham substation no habitat losses have been accounted for. This is on the basis that any habitats of interest such as hedgerows or scrub would be crossed using trenchless techniques and uncertainty about where the cable connection point would be.*
- Access into the habitats will still be required even using trenchless techniques, which may require the loss of sections of hedgerows etc.

### Local Wildlife Sites

- 5.3.8. Paragraph 6.6.5 states: *There are 34 LWS within the 2 km study area, one of which occurs within the Site itself, with a further eight immediately adjacent to the Site. Details of those sites that occur either within or adjacent to the Site are summarised in Table 6.3.* This is considered incorrect as Marnham Railway Yard LWS, Fledborough to Harby Dismantled Railway LWS and Road Wood LWS all fall into the Order Limits Boundary.
- 5.3.9. 6.10.22 states *Habitats within the LWSs will not be directly impacted by construction activities (C1) and will be protected from indirect impacts through the implementation of buffers (minimum of 5 m).* This is not considered to be a sufficient buffer, especially during construction with potential impacts from dust and spillages.

### Ornithology

- 5.3.10. It is indicated that the Breeding Bird Baseline (Vol 6.0: Environmental Statement, Vol 3: Technical Appendices Supporting ES Vol 2, Appendix 6.5 Breeding Bird Baseline) adopted a sampling approach covering 633 ha of the 1478 ha site. It further appears that some areas surveyed are no longer in Order Limits area, and the Biodiversity Chapter (Vol 6.0: Environmental Statement, Vol 2: Aspect Chapters, Chapter 6: Biodiversity) in para 6.3.8 states that the area surveyed is in fact 27% of the Order Limits area, i.e. around only a quarter of the site. The rationale for taking a sampling approach is not clearly justified, and the effect of the sampling approach is that some very large parts of the Order Limits area have not been subject to survey which is very concerning.
- 5.3.11. It is stated in para 6.3.9 that the field survey programme was discussed with stakeholders, and methods agreed as appropriate. With regards to birds, this is not the case, as concerns about the sampling approach were raised, for example in a meeting with the applicant on 11 March 2024 (as minuted). It is indicated that some further surveys will be undertaken in 2025, but no further information is given about the scope of these surveys or how the results will be taken into account as part of the DCO process. It is not clear why omitted areas were not surveyed in 2024.
- 5.3.12. Surveys were undertaken later in the survey season that would normally be expected, not commencing until May (normally starting in mid March or early April).
- 5.3.13. A number of notable bird species were recorded during surveys, including Barn Owl, Hobby, Quail, Grey Partridge, Linnet, Skylark, Turtle Dove, Yellowhammer and Yellow Wagtail. The sampling approach has risked under-reporting the importance of the Limit Order area for rare/scarce species which may only occur patchily across the area, or which have been completely missed so far (such as Tree Sparrow or Corn Bunting).
- 5.3.14. Impacts on ground nesting birds, particularly Skylarks, seem to be of greatest concern, but it does not appear that an attempt has been made to estimate how many Skylark territories there will be post-development, with mitigation. Furthermore, with regards to para 6.10.92 of the Biodiversity Chapter, further detail is needed of the extrapolation of Skylark territories has been carried out, given only a quarter of the site was surveyed and the extrapolation from 66 pairs to 115 pairs suggests that half the Limit Order is unsuitable for Skylarks, which seems unlikely. In summary, the approach to breeding birds represents a significant area of concern.
- 5.3.15. The Wintering Bird Survey (erroneously titled Vol 6.0: Environmental Statement, Vol 3: Technical Appendices Supporting ES Vol 2, Appendix 6.8 Breeding Bird Baseline [sic]) has also taken a sampling approach, but the reliance of wintering birds on seasonal cropping patterns along with retention of habitat along the River Trent means that fewer concerns are raised in this respect, and no particular issues are identified at this stage.

### Reptiles

- 5.3.16. There are major concerns relating to the approach used for the reptile surveys as well as the mitigation proposed. Extracts from the relevant documents and comments are provided below
- 5.3.17. Paragraph 6.6.52 (ES Chapter 6: Biodiversity EN01059/APP/6.6) states:

*A sampling approach was used to assess the highest quality habitats within five locations across the Order limits. Grass snake (peak count of 2 adults) and common lizard (peak count of 3 adults) were confirmed to occur within these habitats. However, no reptiles were identified along the Fledborough to Harby Dismantled Railway LWS.*

Considering that reptiles were identified to be present within these areas, and therefore present within the order limits, it is unclear why no further surveys undertaken in wider areas.

5.3.18. Paragraph 10.131 states:

*Potential for reptiles to be killed or injured during vegetation clearance is the largest risk to individuals. To avoid this monitoring of vegetation clearance by an Ecological Clerk of Works (C15) would be undertaken. Any reptiles located would be moved to suitable habitat in the near vicinity where they could continue to exist during the construction phase.*

This is not sufficient mitigation considering the limitations to the survey effort, sampling approach used to undertake the surveys as the distribution of reptiles across the site is not currently known, only across a very small proportion of the site. More mitigation, such as a precautionary method of working should be used i.e. cuts of vegetation to 30cm in a directional manner etc. This is further detailed in our comments in the environmental measures table under ref. C15 (see below).

5.3.19. Paragraph A.6.1.5 of the Reptile Appendix 6.9 (EN010159/APP/6.21) states:

*Following the completion of the surveys, evolution of the Order Limits has removed some of the sampled area from the project.*

Clarification is sought with regards to what this area was and what the results of this area were. This area could further indicate reptiles present or likely absence within the order limits.

5.3.20. Refugia deployed on 30<sup>th</sup> May 2024 and the first survey was on the 11<sup>th</sup> of June which is under 2 weeks. 3<sup>rd</sup> survey on the 25<sup>th</sup> of June was undertaken in too high temperatures – 17-23 degrees. Surveys 4.1, 4.2, 5 and 6 were all undertaken in July which is outside of the optimal window.

5.3.21. The sampling method used only used 5 locations across the whole site – 4 of the locations were over the eastern side of the river Trent with only one location in the western side of the river Trent. A very large area of the site has not been surveyed. It is accepted that the majority of the Site is arable field, however there are still hedgerows, blocks of woodland and grassland (grazed) in the areas which were not surveyed which offer suitability for reptiles.

5.3.22. The limitations section describes that:

*A.6.3.1. During the survey period, some limitations were encountered that could potentially influence survey results. A total of approximately 86 felts were found to be missing, damaged, or destroyed due to various activities, including agricultural operations and interference from local land users. Specifically:*

*> Ten felts were removed from Location C prior to Visit 2.*

*> Six felts were missing across the survey area at Visit 3.*

*> 18 felts were damaged at Location B, and four felts were damaged at Location E prior to Visit 4.*

*> 39 felts were destroyed, and nine felts were missing from all survey locations prior to Visit 9.*

*A.6.3.2. Felts lost or damaged before Visit 4 were replaced during the following visits and left to bed in for a sufficient period before subsequent surveys. In addition, visual searches within a radius of 3 to 4 meters around the felts were conducted to supplement the survey effort.*

No information has been provided about when the felts were replaced other than during the following visits and considering that surveys were all undertaken within less than 2 weeks of each other, then it is considered that the replacement of the felts and the time allowed to let the new replacement felts bed in, is not sufficient or in line with best practice guidelines. Also, as 18 felts of the 20 felts were damaged at location B, there was not sufficient felts to undertake a thorough survey in line with best practice guidelines. This location only identified one common lizard at this location, it's not considered a sufficient estimate of the numbers of reptiles at this location.

5.3.23. Location E had a total of 14 records over the surveys with a max count of 3 individuals – considering that only 20 felts were used in this area, then its not considered a sufficient estimate of the population present. Considering that reptiles are of county importance, then any significant populations of reptiles needs to be determined and protected.

5.3.24. Considering that reptiles have been identified at location B, D and E, there doesn't appear to be any enhancements specifically for reptiles within these locations.

#### Bats

5.3.25. These comments are specifically in relation to Appendix 6.4: Bat Baseline (EN010159/APP/6.21).

5.3.26. Survey effort – some clarification is required for why only 4 transects were selected, other than the suitability of habitats in these locations. Justification is sought for why transects to provide a baseline of the sites use by bats was not used. Focusing on just the higher quality habitats and not overall may miss any other important commuting or foraging areas across the Site. The heat map in appendix 6.4 Figure 3.4 clearly shows areas which are missing from the survey effort.

5.3.27. This method is not consistent with current guidelines (Collins, 2023), with specific reference to the following paragraph: *8.2.8 all habitats should be sampled during the bat activity surveys. If the impact occurs in an area perceived as having low suitability for bats, then this may still need to be surveyed to evidence this or detect unforeseen importance.*

5.3.28. It's also unclear whether the guidance as provided in paragraphs 8.2.16 and 8.2.25 of the bat survey guidelines has been followed for the bat activity surveys.

5.3.29. It is unclear why static 10 was positioned outside of the order limits. More clarification to why only of the locations 2 (locations 11 and 12) incorporated arable fields, when this forms the majority of the on-site habitats.

- 5.3.30. Justification for how the static monitoring locations were selected needs to be sought. The 12 points used appear to be random and not a full representation of all the habitats at the Site and to be directly impacted. It's unclear how the edge of cereal crop and the cereal crop locations (Figure 3.5) have been factored into the assessment when the locations provided in Table 2.2 both detail the static detector located within the centre of an arable field with one field containing non cereal crop and the other containing cereal crop.
- 5.3.31. Information for how the solar farm will be monitored needs to be sought. Set locations of the baseline and then post development should be used as a comparison.
- 5.3.32. Bat survey guidelines – it appears that the older bat survey guidelines from 2016 have been used, as cited within the reference. The newer 2023 guideline were available from 2023 and should have been used for both the bat roost and activity surveys.
- 5.3.33. It's not clear how the trees have been categorised in terms of their suitability to support roosting bats. The ES Chapter makes reference to the 2023 good practice guidelines, but this doesn't correspond with the technical appendix (6.4: Bat Baseline).
- 5.3.34. In addition, the following comments are made in relation to the ES Chapter:

Paragraph 6.10.86 states:

*Buffers around retained high-quality habitat will be implemented (C4) and preconstruction surveys will confirm the presence of existing roost features and identify new ones within, or adjacent to, the Order limits (C11). Further survey may be required to confirm the presence or likely absence of a roost in the vicinity of construction works and, if necessary, a licence will be obtained from Natural England. In addition, supervision of vegetation clearance will include the assessment of trees for bat roosting potential, specifically where access restrictions have prevented assessment during baseline and pre-construction survey (C15).*

All trees should be retained and avoided. It seems unnecessary that trees should need to be removed considering the vast area of the Site and options to avoid these features.

#### Badger

- 5.3.35. The preference is for suitability sized holes rather than gates to be used to facilitate movement of this species around the order limits.

#### Otter

- 5.3.36. ES chapter Paragraph 6.10.116 states:

*The permanently wet ditches where effects would be manifest will be impacted by construction activities (C1) but will be protected through the implementation of One Earth Solar Farm Environmental Statement Volume 2: Chapter 6: Biodiversity Application Document Ref: EN010159/6.6 Planning Inspectorate Scheme Ref: EN010159 Page 87 buffers, and good housekeeping as detailed within the CEMP (C4 and C14) to control dust, prevent pollution and reduce the risk of spreading invasive nonnative species. At the point of decommissioning the likely significant effects will be similar to construction, although will be less intrusive as cables, piles and other below ground infrastructure is proposed to remain in place.*



- 5.3.37. No information on the size of buffers, location of artificial holts to be impacted during decommissioning has been provided or assessed.

Water Vole

- 5.3.38. More details are required on the control of mink, including length of time and location.

River Trent

- 5.3.39. ES chapter Paragraph 6.10.53 states:

*Habitats within the River Trent will not be directly impacted by construction activities (C1) and will be protected from indirect impacts through the implementation of buffers (min 16 m)*

This buffer is not considered sufficient considering the species the River Trent supports.

Lampreys

- 5.3.40. Paragraph 6.10.8 of the ES Chapter states:

*Changes in EMF and heat are unlikely to be detectable within a few metres (likely under 1.5 m) from each cable. At the minimum specified depths no effects would be expected. To inform future consideration of lamprey and EMF, monitoring will be implemented (C12) in coordination with the Environment Agency and Natural England (as has been requested of other solar developers in the general locale).*

- 5.3.41. The requirement for monitoring suggests that the exact impacts to lamprey cannot be determined. Although the ES chapter has reviewed the literature and provided justification and mitigation to be used, the use of the word likely does not provide complete confidence that there will be no impacts to this species.

- 5.3.42. Lamprey populations will be monitored for no more than 5 years – we would question whether this is sufficient considering their life cycle. Larvae live downstream for 3-7 years and then go to the ocean, before returning to freshwater to spawn and die. 5 years wouldn't be sufficient to monitor any impacts to the population. Especially with the impacts of the cabling under the Trent. There has been no baseline survey to establish the number of lampreys and therefore cannot determine impacts through any monitoring.

- 5.3.43. Impacts to lamprey during the decommissioning phases have not been considered.

Environmental Measures

- 5.3.44. Table 6.6. provides our comments on the Environmental Measures and Securing Mechanisms.

*Table 6.6 Environmental Measures and Securing Mechanisms Page 40-55*

Ref	Measure	NCC Comment
C13	Construction areas will be fenced using either hoarding or Heras fencing to prevent animals from entering active works, thereby protecting them from accidental injury or killing	This type of fencing would not stop animals from entering active works. Other methods of mitigation need to be considered.
C15	Vegetation clearance will be timed to avoid the main bird nesting season	Not considered sufficient – would also disturb ground nesting birds too much.

	(March to August inclusive), and periods where reptiles and amphibians are active (climate dependent) to avoid injury or killing. Where this is not possible, habitats will be inspected prior to works by an Ecological Clerk of Works (ECoW) to search for potential bird nests and features suitable to support sheltering herptiles. If found, nests will be monitored to confirm occupation (nest building, egg incubation or with young) to determine the requirement for a suitable stand-off distance to be implemented.	Mitigation to prevent nesting birds should be undertaken - i.e. cutting of any longer grassland habitats or other vegetation outside of the nesting bird season and then management of any grassland swards to a low height to deter nesting (grassland habitats) Areas of habitats such as scrub, hedgerows etc should be cut in the reptile active period, immediately following suitable nesting bird surveys by experienced Ecologists.
C16	Advanced habitat creation and enhancement works	are these areas going to be protected once these works have been completed – they need to be fenced or have a specific phasing to prevent any encroachment during construction and decommissioning.
C17	Skylark plots	To be created 12 months prior to the installation of the modules. What protection are these going to have ? Management works to the grassland during the establishment period will need to be undertaken which could impact any skylark nests
C18	Beetle banks	Consideration of different types to be created currently all will just be sown with a species rich grassland Could some be made with sandy substrate and have an acid grassland mix created?
C19 C20	Habitat piles and gabion baskets	Clarification sought for the numbers to be used and locations. 50 and 25 doesn't seem to be enough
C24	Bird boxes	50 including 3 barn owl boxes doesn't seem to be enough

Environmental Parameters (Table 6.7)

5.3.45. The table on page 55 outlines the habitat types, loss and quantification. Considering that at this stage the design, access points, habitat creation and losses are detailed and known it is unclear why 'assumptions' have been made specifically for hedgerow and arable field margins.

5.3.46. Paragraph 6.10.35 also states:

*Fencing will surround the solar tables but will likely be installed in large sections that cover several fields at one time meaning that it will cross through hedgerows on occasion.*

The removal of a section of a hedgerow to facilitate a fence seems unnecessary habitat loss and impacts. The hedgerows themselves would act as fencing.

Biodiversity Net Gain (BNG)

5.3.47. Please note that we have not reviewed the excel spreadsheet statutory metric with information in this section pulled from ES Volume 3, Appendix 6.10: Biodiversity Net Gain Assessment [EN010159/APP/6.21].

5.3.48. Modified grassland in good condition – habitat summary states:

*Grassland field with high species diversity though evidence of agricultural heritage.*

Clarification is sought with regards to the number of species per square metre and if this should be other neutral grassland? Missing information to define this (see below) – habitat type in UK Habs is not solely based on agricultural use but through the composition. BNG condition assessment sheets also require the use of Condition sheet 6 and not 5 if there are more than 9 species per m2.

5.3.49. The modified grassland in good condition underneath the solar panels is not feasible. Under the solar panels will require regular management to keep the sward height low and therefore will not be able to meet condition criteria B and D – therefore the maximum is moderate condition for this habitat.

5.3.50. It should be noted that UK Hab Guidance for Solar Arrays page 326 states:

*Record the strips of panels as u1b6 and the strips of vegetation in between the rows separately.*

New tree planting cannot achieve good condition in 30 years. This needs to be at least moderate – trees are unlikely to pass condition criteria C and E as they will not reach an age to be classed as mature or develop niches within the 30 years.

5.3.51. No information on the size of the trees inputted into the metric has been provided. As per BNG User Guidance on post-development tree planting, newly planted individual trees should be classed as ‘small’, unless ‘medium’ size or above at the time of site-planting and trees planted with a DBH less than 7.5cm are considered to be ‘small’.

5.3.52. No species lists / results of the quadrats undertaken for the grassland conditions, provided within the BNG assessment or condition sheets provided as an appendix A1 Habitat Condition Assessment Sheets. Many of the condition assessment sheets are also lacking in justification for the pass or fail of each condition criteria.

5.3.53. In addition, Appendix 6-3 extended habitat survey does not contain a direct translation into UK Habs, with references to older Phase 1 habitat types (JNCC 2016), and not UKHabs, therefore finding species lists for the relevant habitat type for comparison is difficult.

5.3.54. Although over a 10% net gain is definitely feasible for this solar farm, modifications to the post development habitat types needs to be undertaken to provide a more realistic percentage of net gain.

### Outline Landscape and Ecology Management Plan (OLEMP)

5.3.55. NCC will provide detailed comments on the OLEMP once details have been finalised, as we are aware that landscaping details have not been finalised at this stage. We would also like to see some of our suggestions above incorporated into the OLEMP.

## 5.4. Flood Risk

### 5.4.1. Local Policy:

- Bassetlaw Local Plan
  - Policy ST50: Flood Risk and Drainage
- Newark and Sherwood Amended Core Strategy
  - Core Policy 10: Climate Change

### 5.4.2. National Policy:

- Section 5.8.15 of EN-1 includes assessment principles for judging impacts of energy projects on flood risk and sets out the minimum requirements for Flood Risk Assessments.
- Further advice on potential impacts of solar farms is provided in Sections 2.10.75-92 of EN-3. This confirms that the FRA should consider the impact of drainage but notes that as solar panels drain to the existing ground, the impact will not, in general, be significant. Given the temporary nature of solar farms, EN-3 advises sites should be configured or selected to avoid the need to impact on existing drainage systems and watercourses.

5.4.3. NCC does not have the expertise or resource to provide comprehensive comments on the technical aspects of the submitted drainage strategy and flood risk assessment and therefore cannot currently offer a view on the impact on local flood risk relating to surface water and ordinary water courses. NCC has appointed a specialist to review the application documents and is proposing to submit its comments as an addendum to this LIR at Deadline 2.

5.4.4. It should be noted that the Environment Agency is the body responsible for managing flood risk from main rivers and therefore because much of this project lies in the river valley flood plain advice relating to flood risk will also be the responsibility of the Environment Agency.

## 5.5. Landscape and Visual

### 5.5.1. Local Policy:

- Bassetlaw Local Plan
  - Policy ST35: Landscape Character
- Newark and Sherwood Amended Core Strategy
  - Core Policy 13: Landscape Character

### 5.5.2. National Policy:

- EN-1 confirms that all energy infrastructure projects will have adverse effects on landscape and that projects need to be designed carefully, taking account of the potential impact on the landscape and the aim should be to minimise harm to the landscape, providing mitigation where appropriate. The applicant should carry out a landscape and visual impact assessment and report it in the ES, including cumulative effects, with reference to any local character assessments.
- Further guidance in relation to solar farms is provided in EN-3 which places emphasis on effective screening, including through native hedges, trees and woodlands.

- 5.5.3. AAH Consultants (AAH) has been commissioned to prepare a review of the Landscape and Visual (L&V) elements of the application documents on behalf of NCC and BDC. The review is presented as a report and is appended to this LIR. It provides comments on the presentation of the L&V Chapter of the ES, the methodology and scope of assessment, the appraisal of landscape and visual baseline and effects and the mitigation and design of the project.
- 5.5.4. This section of the LIR provides an overall summary and conclusion on the suitability of the Landscape and Visual elements of the DCO Application and whether they are sufficient to support an informed decision. This includes the adequacy of the LVIA, reviewed in accordance with the Landscape Institute *Technical Guidance Note 1/20 (10 Jan 2020): Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs)*. It also includes recommendations for further information that should be provided to assist in the examination of the DCO Application. However, it is recommended that the full report appended to the LIR is read to understand the wider context and reasoning for the conclusions.
- 5.5.5. The LVIA and the associated figures, appendices and documents provide a thorough analysis of the Development and is appropriate to the scale and context of the Site. The process of assessment is thorough and well explained in the volumes, which include a clear summary of findings and identification of significant effects on the landscape and visual baseline. There are some parts of the assessment that we have highlighted issues with, which are summarised below.
- 5.5.6. By reason of its mass and scale, the Development would lead to **significant adverse effects** on landscape character and visual amenity at all main phases of the scheme (construction, operation year 1, operation year 15). The Development has the potential to transform the local landscape by altering its character on a large scale across an extensive area. This landscape change also has the potential to affect a wider landscape character, at a regional scale, by replacing large areas of agricultural or rural land with solar development, affecting the current openness, tranquillity and agricultural character that are identified as defining characteristics of the area. We also judge that this would likely be classed as a permanent project in regards to landscape and visual matters, spanning several generations. As such, the likely effects may be understated as the author has deemed residual effects would be partly reversible.
- 5.5.7. The scale and extent of development would also lead to **significant adverse effects** on views from receptors, by altering from views within an agricultural or rural landscape to that of a Landscape with large scale solar development. We have highlighted some issues with the visual assessment within the LVIA and compliance with the recent Landscape Institute *Technical Guidance Note LITGN-2024-01*; The assessment is structured around static views rather than the experience of the visual receptor which should include for sequential and varying views. This should be reviewed further as part of the DCO examination, as the extent of visual effects do not appear to have been fully considered.
- 5.5.8. The cumulative landscape and visual effects of the Development have the potential to bring about significant landscape and visual effects, however adjacent schemes identified within the ES are relatively small in comparison with the wider One Earth order limits schemes. We have concerns regarding effects on the national, county and regional landscape character areas from the extent of renewable and energy infrastructure proposed across the county. The mass and scale of these projects combined has the potential to lead to adverse effects on landscape

character over an extensive area across these published character areas. The landscape character of the local, and potentially regional area, may be completely altered over the operational period through an extensive area of land use change, and introduction of energy infrastructure in an area that is predominantly agricultural. This would also be an issue when experienced sequentially for visual receptors travelling through the landscape and experiencing these schemes across potentially several kilometres, albeit with gaps between the schemes. This is a clear and marked change to landscape character.

- 5.5.9. Tree and vegetation removal associated with the Development, including wider highways improvements and access for construction, must be clarified through the examination process, and subsequently any works (such as lopping or pruning), or removal of trees and hedgerows must be agreed prior to any works commencing. Prior to any construction activities, all tree and hedgerow protection methods associated with that phase of construction should also be clarified and subsequently agreed with the appropriate authority (in this case the local planning authority). This would be to BS:5837 Trees in Relation to Construction and any subsequent arboriculture method statements, again this should be approved by the appropriate authority. In particular this should ensure existing trees, and associated root protection areas, are suitably protected throughout the entire construction period. This would also likely include areas within the order limits, but away from construction activity, such as storage areas for materials which may suffer from tracking by plant that would damage tree root protection zones.
- 5.5.10. While the submission includes landscape proposals (as shown on *Figure 2.7: Illustrative Masterplan* and the *Mitigation Plan* within Appendix A of the OLEMP, secured via Work Order 8 on the Works Plans and DCO), these are of a high level and it would be expected that if the project proceeds much more detailed plans would be submitted and subsequently agreed with the appropriate authority prior to the commencement of any works and secured through Requirements of the DCO. This would include clear detail of the areas of landscape mitigation, location and types of planting (species), as well as number, density and specification. The mitigation illustrated on the *Outline Landscape and Ecology Management Plan (OLEMP)* has been utilised to assess the landscape and visual effects of the scheme, therefore we would expect any detailed landscape proposals to consist of the area and extent shown on these plans as a minimum. The provision of detailed planting, and subsequent agreement with the relevant authority must be explicit in the OLEMP, which needs to be suitably secured within the wording of Requirement 8 of the DCO (the wording in the draft DCO is currently very much focused on written management and does not include for a detailed planting scheme).
- 5.5.11. The wording within the OLEMP should also be specific in the timescales for maintenance (lifetime of the project) and plant replacement (minimum 5 years), as well as cover for unforeseen circumstances such as extensive plant dieback, or failure to establish or thrive as expected and allow for plant replacement at any time as required to ensure the mitigation planting is fulfilling its role as mitigation. This maintenance must cover all new planting and existing retained vegetation associated with the scheme, including trees, hedgerows, grassland, shrub/scrub and marginal/aquatic planting. Existing vegetation should be covered by a tree survey and protected to BS5837: Trees in Relation to Construction.

## 5.6. Traffic and Transport

### 5.6.1. Local Policy:

- Bassetlaw Local Plan
  - Policy ST52: Transport Infrastructure
- Newark and Sherwood Amended Core Strategy
  - Spatial Policy 7: Suitable Transport

### 5.6.2. National Policy:

- EN-1 Section 5.14 acknowledges that the transport of materials, goods and personnel to and from a development during all project phases can have a variety of impacts on the surrounding transport infrastructure and potentially on connecting transport networks (5.14.1). The statement sets out that the ES should be supported by a transport appraisal and that appropriate mitigation should be identified having regard to the needs of freight at all stages in the construction and operation of the development.
- EN-3 provides further guidance on the assessment of impacts and potential mitigations in relation to construction traffic associated with solar farms. Paragraph 2.10.141 states that where cumulative effects on the local road network or residential amenity are predicted from multiple solar farm developments, it may be appropriate for applicants for various projects to work together to ensure that the number of abnormal loads and deliveries are minimised, and the timings of deliveries are managed and coordinated to ensure that disruption to residents and other highway users is reasonably minimised.

5.6.3. The County Council has reviewed the Transport and Access Chapter and relevant appendices of the ES and is concerned about the assessment methodology that has been used to assess the impact of construction traffic on the local highway network and the acceptability in principle of the proposed accesses, which have not been justified. There are certain routes that would be expected to carry a significant proportion of construction traffic, which have been omitted from the transport assessment study area, and which could have an impact on some significant settlements. There also access points which have been proposed which could have consequences for the Major Road Network and result in a highway safety risk. At this time, it is concluded that the proposal could have a **significant negative** impact on the highway network and further assessment work is needed to address the issues raised below.

5.6.4. **The extents of the Study Area remain unagreed.** Whilst the Consultation Response [EN010159/APP/5.1] and Chapter 12: Transport and Access [EN010159/APP/6.12] both state that the study area has been agreed during scoping and a subsequent meeting, the study area has not been agreed by the HA at any point. Transport Assessment [EN010159/APP/6.21] in paragraph A.12.4.6 also states in regard to the Environmental Impact Assessment that further consultation has been held with NCC. Other than the response to the statutory pre-application consultation provided in July 2024 the HA have had no further input, and the concerns raised in that consultation do not appear to have been adequately addressed in the current documents

5.6.5. A Transport Assessment is an iterative process and the information that is currently under consideration identifies that the unagreed study area proposed does not cover the area required.

- 5.6.6. 12.3.3. states that Fig 1 of the Transport Assessment [EN010159/APP/6.21] shows the study area, but this is incorrect as Fig 1 is the development location plan. This should in fact refer to Figure 6.
- 5.6.7. Routes which have been excluded were specifically highlighted as an issue in our previous consultation comments and the response given in Consultation Response [EN010159/APP/5.1] is not accepted. Furthermore, this response states that the routes identified will not be used and that these routes will be managed by the Outline Construction Traffic Management Plan [EN010159/APP/7.9] (OCTMP). However, neither routes are referred to in this document but this statement is also directly contradicted by Figure 5 of Transport Assessment [EN010159/APP/6.21] which shows that the A1133 to the south is an intended HGV route (albeit the route shown is cut off) and this is also supported by the traffic figures.
- 5.6.8. The A1133 to the South of South Clifton is predicted to have 202 daily construction related vehicles on it and therefore should be included in the study area. The A1133 to the north is predicted to have 86 daily construction related vehicles using it and is included in the study area. This is a clear disparity.
- 5.6.9. We have a significant concern that the A1133 between the A46 and the site and the B1164 linking the A1 south to the site have neither been considered in the assessments nor included in the proposed barred routes. These routes are the shortest and quickest routes to both the east and west parcels from south using either the A1, A46 or the A17. This has potential to create impacts on the settlements of Sutton on Trent, Collingham and Besthorpe (amongst other smaller ones) which have not been considered.
- 5.6.10. Given it is also the shortest and quickest route from the south, as evidenced on online route-finding tools, more of the 381 vehicles assigned to the A57 west of Dunham may also use the route through Sutton on Trent to access the western parcels.
- 5.6.11. All other routes are covered in the Transport Assessment and considered or barred (as opposed to be managed in the OCTMP).
- 5.6.12. **There remains disparity with regards to the number of HGVs as a percentage increase which impacts on the extents of the areas which should have been included in the Environmental Impact Statement but have not been.**
- 5.6.13. A.12.5.21 of Transport Assessment [EN010159/APP/6.21] states that in relation to existing traffic conditions that the counts were recalibrated and crosschecked with DfT data. The majority are now broadly in line with what would be expected but there are two (excluding the A57 Dunham count which appears to be a replica of the A57 west data) where the HGV numbers are considerably different to the information based on DfT data that we provided previously; namely the A57 west of Dunham where it is claimed that there are 865 HGVs compared to the 688 from the DfT (an increase of more than 25%) and the A1133 south of South Clifton where it is claimed that 792 HGVs compared to the 334 from the DfT (an increase of 137%). The response is therefore not accepted.
- 5.6.14. 12.4.36 of Chapter 12: Transport and Access [EN010159/APP/6.12] states that the majority of locations included in the (unagreed) study area are subject to Rule 1 of the IEMA guidelines



and are assessed if traffic flows (or HGV flows) are anticipated to increase by 30% or more during the construction phase.

- 5.6.15. Table 12.8 indicates a percentage impact summary, based on information given in Table 12.7, presumably against Table 12.5. However, this table only provides overall construction traffic as a percentage of all traffic and subsequent paragraphs describe the range of HGV increases as being between 1.5% and 32.8% and does not highlight the % increase respective to each link. However, when correcting the errors made with regard to the existing numbers of HGVs, NCC have identified that there is a 42% increase in HGV traffic on the A57 West of Dunham and a 60% increase on the A1133 south of South Clifton. As this latter route is not included in the study area, the impacts have not been assessed.
- 5.6.16. We would also note that A.12.5.22 and Figure 7 of Transport Assessment [EN010159/APP/6.21] identifies there were traffic surveys at 9 locations but Tables 1 and 3 identify 10 sites. It appears that A57 Dunham is a duplication of the A57 west of Dunham as these have the same traffic flows, which would not be anticipated with the access to High Marnham between them.
- 5.6.17. **The proposed Access points have not been justified and no information submitted to determine the principle of their acceptability.**
- 5.6.18. The Response to PINS Scoping Opinion [EN010159/6.21] states the Highway Authority has been consulted over access points. However, these were only very broadly indicated in the initial consultation which confirmed the design standards to be used. Access points are therefore not currently agreed.
- 5.6.19. In our previous consultation response, we queried why Ragnall is included in the barred routes as it is the signed HGV route to High Marnham, but this has not been fully explained within the Consultation Response [EN010159/APP/5.1]. Avoiding routes will automatically provide environmental benefit, but as it has not been considered under IEMA in the same way that all other links and routes have, this choice has not been justified.
- 5.6.20. Excluding Ragnall requires an additional access onto the A57 within a 50mph speed limit, catering for circa 430 construction vehicles per day (in peak). This is likely to create delay on the Major Road Network, contrary to the assessment in Table 12.10 in Chapter 12: Transport and Access [EN010159/APP/6.12] and is likely to result in conflicts with a resultant highway safety risk. This access has therefore neither been justified nor its impact properly considered.
- 5.6.21. Figure 4 of Transport Assessment [EN010159/APP/6.21] indicates the site access locations (gates A to J) and paragraph A12.3.37 states that prior to any construction works being undertaken within the limits of road adoption, the detailed design of these works must be submitted to the appropriate highway authority for approval. However, some details of the gates would need to be submitted as part of this process so the principle of their acceptability can be established.
- 5.6.22. The response provided in Consultation Response [EN010159/APP/5.1] states that figures illustrating the junction layouts with visibility splays are provided in the Transport Assessment [EN010159/APP/6.21]. However, the drawings in the Transport Assessment show the swept

paths at the access intended for the Abnormal Load vehicles and do not show the accesses at each gate.

5.6.23. It has however been subsequently highlighted that access drawings are within EN010159-000121- 2.4 Streets rights of way and access plans. These drawings should be referenced within or appended to the Transport Assessment [EN010159/APP/6.21]. In order to be able to fully consider the acceptability of these, a Road Safety Audit to GG119 should be carried out and submitted.

5.6.24. However, some clarification is also required as the drawings are numbered and do not correspond to the alphabetic convention referred to in all other documents, neither do they correspond to the sequential numbers (i.e. A=1) so the applicant should review and reconcile this, to ensure consistency.

5.6.25. We have the following specific matters which should be addressed:

Gate	Junction	Issue to be addressed
H	3	Details are shown on a private track. The access to highway should be assessed instead, and this would need to be the subject of the safety audit.
-	5	Not shown in Fig 4 of the Transport Assessment.
-	8, 9, 17	These are crossing points but should be referenced within the Transport Assessment as they are still access points.

5.6.26. The response provided in Consultation Response [EN010159/APP/5.1] states that figures illustrating the junction layouts with visibility splays are provided in the Transport Assessment [EN010159/APP/6.21]. However, the drawings provided show the swept paths at the access intended for the Abnormal Load vehicles and do not show the accesses at each gate.

5.6.27. The HA will need to see drawings showing all accesses, including details of the highway boundary, swept paths and the required visibility splays alongside any vegetation (hedgerows/trees) requiring removal as a minimum. These preliminary drawings should be accompanied by a Stage 1 Road Safety Audit to GG119.

5.6.28. Proper consideration has still not been given to the requirement for passing bays. Whilst Crabtree Lane is noted to have some passing places, it has not been determined that these are suitable or sufficient. Paragraphs A.12.5.18 and A.12.5.19 of Transport Assessment [EN010159/APP/6.21] suggest that both Polly Taylors Road and Moor Lane are circa 6m in width which is an overestimation, and their suitability to accommodate HGV traffic should be established with passing points identified if required. Gates E, J and I need to be considered with regards to this.

5.6.29. It should also be confirmed if all accesses are to be made permanent for use during the operation phase.

5.6.30. Paragraph A.12.3.39 of Transport Assessment [EN010159/APP/6.21] states that the access junctions will be metalled for the initial section to prevent debris being brought out onto the public road network with gates set back 15m. This does not accommodate the maximum legal

length of an HGV and therefore this should be amended accordingly (a 25m setback would be recommended).

5.6.31. **The collision data should be updated and included in the access considerations.**

5.6.32. A.12.5.27 of Transport Assessment [EN010159/APP/6.21] suggests that 'slight' accidents are damage only accidents. This is not the case. Slight accidents are injury accidents.

5.6.33. Information submitted in relation to the accesses (above) should specifically consider any collisions in their vicinity and will need to consider the latest available data (as that provided is out of date). The latest accident information available covers 2024 and part of 2025 and can be obtained by emailing [roadinjuryaccidentdata@viaem.co.uk](mailto:roadinjuryaccidentdata@viaem.co.uk)

#### Dilapidation Survey

5.6.34. Consultation Response [EN010159/APP/5.1] states that the Applicant will engage with the relevant Highway Authorities separately regarding the need for any 'Wear and Tear' agreements. However, there is no reason why this should not be included in the Outline Construction Traffic Management Plan [EN010159/APP/7.9] or otherwise secured through this process and include details of a pre and post works highway condition survey with timescales for implementation of any repairs necessary alongside securing means for emergency repair works during the construction phase.

5.6.35. After construction the Highway Authority require the highway and any road gullies within 500m either side of each access to be cleaned. This should also be included in the OCTMP and linked to the dilapidation survey to account for any post construction repair works.

#### Cable Route

5.6.36. Outline Export Cable Route Construction Method Statement [EN010159/APP/7.13] includes a diagram in Figure 1.1, representing the cable route. However, the background map is too small a scale and is blurred. A clear plan is required identifying where the cable is to be laid in relation to the highway. There should also be consideration how the sections that affect/cross public highway are intended to be managed and this should be referred to in the OCTMP.

## 5.7. Waste Management

5.7.1. Local Policy:

- Nottinghamshire and Nottingham Waste Local Plan
  - SP1 – Waste Prevention and Re-Use

5.7.2. National Policy:

- EN-1 states that proposals should ensure that sustainable waste management is implemented through the waste hierarchy and that disposal of waste should only be considered where other waste management options are not available. The applicant should set out the arrangements that are proposed for managing any waste produced and should include information on how re-use and recycling will be maximised in addition to proposed waste recovery and disposal.

- 5.7.3. As per the Planning Inspectors comment at the Scoping Opinion Stage on the topic of waste (PINS ID 3.13.3), the applicant has within their Environmental Statement (Volume 3, Appendix 2.3 and Volume 7: Outline Site Waste Management Plan) assessed the likely significant effects from waste during the construction, operational and decommissioning phase. This includes estimating, by type and quantity, of types of waste produced.
- 5.7.4. The Materials and Waste Impact Assessment (ES Volume 3, Appendix 2.3 [EN010159/APP/6.21]) details that all phases have been considered, with method W1, a 'worse case' scenario, from the IEMA guidance selected to assess waste effects. The Councils agree with using the W1 Method from IEMA to make this assessment, with this method used by other, similar schemes within the area.
- 5.7.5. In establishing the Future Baseline, as indicated by the applicant, there is no information regarding potential landfill capacity by the time of the proposed developments decommissioning. Due to the difficulty in forecasting future landfill capacity, the assessment has assumed that for inert, hazardous and non-hazardous landfill capacity, the capacity will remain at the same level as it is currently, which has been used as the baseline for the assessment. The County Council agree that future capacity for the lifespan of the development is unrealistic to forecast and that for inert waste, it is likely capacity will continue in a cyclic nature. However, the Council considers that future hazardous and non-hazardous capacity in Nottinghamshire is more uncertain, with the Table 11 of emerging Nottinghamshire and Nottingham Waste Local Plan, as modified by the main modifications proposed following examination, identifying a deficit in non-hazardous disposal capacity by 2038.
- 5.7.6. As raised in paragraph 5.58 and paragraphs 7.38 – 7.41 of the emerging Plan, due to underlying geology of the area and wider environmental constraints, the scope to provide hazardous and non-hazardous capacity in Nottinghamshire is extremely unlikely. It is noted that the assessment considers the capacity in the East Midlands area for non-hazardous and nationally for hazardous, but we believe that the applicant should recognise the potential that non-hazardous capacity could be significantly reduced in the future.
- 5.7.7. It is noted that to mitigate the effects of waste, the applicant intends is to minimise the generation of residual waste that would require disposal by seeking to re-use and recycle as much as possible, with a firm commitment to re-use and recycle 100% of the solar panels. The Council agrees with this approach as it supports the waste hierarchy, is in accordance with National Planning Policy for Waste and the Government's aim to reach a circular economy. However, as noted by the applicant, as of yet there is no established recycling capacity for solar panels in the UK. The applicant assumes, under the realistic worst-case scenario, that such capacity will be developed thus allowing 70% to be recovered, whereas the absolute worst-case assessment assumes that no such capacity is developed.
- 5.7.8. The Councils welcome that both assessments have been undertaken, noting that whilst the realistic worst-case scenario is preferable to the absolute worst-case scenario, by considering the absolute worse-case scenario it highlights the cumulative impact would be significant on non-hazardous landfill capacity if the industry for recycling solar panels does not come forward. This effect could also be compounded if new non-hazardous landfill sites and capacity

does not come forward which maintains the current baseline capacity due to the limitations noted above.

- 5.7.9. Overall, the Council agrees with the methodology used but would request that the applicant recognised that the potential for new non-hazardous capacity is limited within Nottinghamshire due to the geology of the area and other environmental constraints, and future capacity may be lower than current capacity. This stresses the importance of the solar industry even at this stage in promoting development of specific recycling facilities and so capacity to enable the recovery and recycling of solar panels, particularly at the decommissioning phase, for this project and others within the area to prevent significant cumulative effects.

## 6. Development Consent Order

6.1. NCC has reviewed the draft DCO and has the following comments to make, however these are not exhaustive and NCC may have further comments to make during the examination process.

### Part 3 – Streets

6.2. The DCO should explicitly contain a mechanism that allows coordination of any programmed works with any existing utility works, so that NCC in its capacity as the Highway Authority can help to minimise overall environmental and operational disruption on the highway network. The Highway Authority needs to ensure its statutory duty to ensure the expeditious movement of traffic on the highway network is not compromised.

6.3. It is noted that a full list of streets which are subject to streets works, alterations and proposed access points are provided at Schedules 4-7. However, the content of these schedules is not agreed because the transport assessment methodology is not currently accepted by NCC (as discussed in Chapter 5.6 of this LIR). Also, whilst it is noted that any works referred to in these schedules would be subject to approval from the street authority (in accordance with the procedure detailed in the DCO), NCC would expect this to comprise full technical approval and for its costs to be covered.

6.4. Any powers to undertake works on the highway network should not fully circumvent the Highway Authority's system to coordinate road works and powers to impose a TTRO should remain with the County Council who will carry out the necessary promotions and consultations.

### Schedule 2 – Requirements

6.5. NCC notes that most of the requirements in Schedule 2 are assigned to the district councils to discharge as the local planning authority, but that there are several requirements which NCC would have responsibility to discharge (albeit in consultation with relevant bodies, including the district councils). The requirements assigned to NCC align with its areas of expertise and statutory responsibility and the topics covered in this LIR. They are therefore satisfactory in principle with the exception of the Soil Management Plan (Requirement 19) which NCC believes should be discharged by the District Council for continuity with the topics covered in their LIR. It is assumed that NCC would be consulted on matters where it is not the determining authority but has interest.

6.6. NCC may wish to comment further on the wording of the requirements during the examination.

### Schedule 15 – Procedure for Discharge of Requirements

6.7. NCC notes that where an application to discharge a requirement is made a fee is to apply and must be paid to the relevant planning authority for each application. However, the fees vary significantly between each requirement. In relation to those requirements where NCC is the relevant planning authority, the highest fee of £2535 applies to Requirements 7 (Battery Safety Management), 12 (Archaeology), 18 (PROW Management Plan) and 19 (Soil Management Plan). Whereas Requirements 11 (Surface and Foul Water Drainage) and 15 (Construction Traffic Management Plan) would be subject to a fee of £145. This fee is considered to be too low and the rationale for adopting a differential approach between requirements is not clear. NCC would recommend applying the same fee structure to all of its requirements, unless evidence can be provided to the contrary. The costs to the council should be adequately covered through a suitable fee structure in the DCO and the fees should also be index linked from the date of the DCO.

6.8. NCC considers that notification of a decision within 10 weeks as a standard approach is insufficient. NCC is particularly concerned with the resourcing of such requirements and therefore consider that a more appropriate default period equating to Major Environment Impact Assessment development for a planning application of 16 weeks is more appropriate. Whilst NCC note that Part 2(c) includes for the ability to agree an alternate period, the expectation for 10 weeks would be set by its inclusion in the standard wording. The project is significant in size and scale and the information submitted for many of the requirements is likely to involve a significant amount of information and an appropriate time period must be afforded for NCC to consider this. This issue would be compounded by the combination of other NSIP projects within the county (an outlined briefly in Section 2), should they gain development consent. These projects follow a similar timeline and will place cumulative pressure on the statutory functions of the planning department.

## 7. Summary

- 7.1. This proposal impacts upon a significant area of land in Nottinghamshire in the Fledborough, Ragnall areas to the west of the River Trent and to the east of North and South Clifton on the east side of the River Trent. It will have profound and long-lasting impacts on the natural environment and local landscape.
- 7.2. This LIR has undertaken an assessment of the likely issues and impacts that NCC considers will arise from the construction and operation of the One Earth Solar Farm with respect to its administrative area and its areas of expertise and statutory responsibility. This LIR does not cover all relevant environmental matters and should be read alongside LIRs from the District Councils.
- 7.3. In preparing this Local Impact Report, local Councillors and the Cabinet lead for Transport and Environment have been engaged and highlighted their concerns over the impacts of this proposal. Whilst endorsing the detailed comments in this paper Councillors have also stressed their own particular concerns. Councillor Barlow who represents the North and South Clifton area has highlighted concerns over the siting of the battery storage facilities in relation to the flood risk in the area, a matter which the Environment Agency and Nottinghamshire Fire and Rescue Service would be expected to comment on impacts further. She had also highlighted potential issues over the construction of this project and the A46 Newark bypass/A1 junction improvement which is another NSIP project awaiting decision but with Government commitment to fund. Councillor Bingham, the Cabinet lead for Transport and Environment has stressed the need to consider the whole life environmental impact of this technology from manufacturing through to the landfill disposal.
- 7.4. The LIR has identified several negative or inconclusive effects at this stage which NCC believes should be further addressed by the applicant, through further assessment work and mitigation measures. The significant negative impacts relate to Archaeology, Landscape and Visual and Transport and Traffic matters.
- 7.5. The Archaeological evidence has not led to an agreed programme of mitigation and therefore it is concluded that there will be a significant, adverse and negative impact on matters of buried heritage. Whilst the landscape evidence and methodology is generally agreed, it points to significant negative impacts on key views and receptors from a landscape and visual perspective. The Transport Assessment has not been agreed with the County Council as Highway Authority leading to the conclusion of a significant negative impact on the highway network during the construction phase.
- 7.6. NCC may wish to make further representations as appropriate during the examination and at issue specific hearings particularly with regard to environmental matters discussed within this report. Therefore, the comments contained above are provided without prejudice to the future views that may be expressed by the County Council as an Interested Party in the examination process.





**LANDSCAPE AND VISUAL REVIEW  
OF THE DEVELOPMENT CONSENT ORDER (DCO) APPLICATION  
FOR THE ONE EARTH SOLAR FARM  
FOR  
NOTTINGHAMSHIRE COUNTY COUNCIL**

**June 2025**

## Landscape and Visual Review

### Quality Assurance – Approval Status

Version	Date	Prepared by	Checked by	Approved by	Version Details
1	02/06/25	Oliver Brown	John Brodie	Oliver Brown	Draft Issued for comment
2	10/06/25	Oliver Brown	John Brodie	Oliver Brown	Updated following comments

# Landscape and Visual Review

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## Appendices:

### Appendix A: ViaEM Consultation documents:

- Relevant Representation comments by Via East Midlands Dated 12th May 2025

**Appendix B:** Landscape Institute Technical Guidance Note 1/20 (10 Jan 2020)  
: *Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs).*

## 1.0 Introduction

### Purpose of the Landscape and Visual Review

- 1.1 AAH Consultants (**AAH**) has been commissioned to prepare a review of the Landscape and Visual elements of the Development Consent Order (**DCO**) Application for the One Earth Solar Farm (the '**Development**'), submitted to the Planning Inspectorate in February 2025 and accepted for Examination in March 2025, on behalf of Nottinghamshire County Council (**NCC**). This follows on from Via East Midlands (**VIAEM**) providing landscape and visual consultation with the applicant on behalf of NCC at the Pre-Application stage of the project. VIAEM Relevant Representation comments on Landscape and Visual matters is provided within **Appendix A**, and AAH have coordinated this LVIA review with VIAEM and the pre-application consultation carried out by them. It should also be noted that One Earth Solar covers several administration boundaries across Nottinghamshire and Lincolnshire, and AAH are providing landscape and visual advice and support to Lincolnshire County Council (**LCC**) and Newark and Sherwood District Council (**NSDC**) on this project.
- 1.2 The purpose of this report is to carry out an independent review of the landscape and visual elements of the DCO submission, with a focus on a review of the Landscape and Visual Impact Assessment (**LVIA**) chapter of the Environmental Statement (**ES**), which is based on the guidance provided within the Landscape Institute *Technical Guidance Note 1/20 (10 Jan 2020): Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs)*, which is included within **Appendix B** for reference. While the focus of this review are the landscape and visual matters affecting Nottinghamshire, with separate representations made on behalf of other local authorities, due to the scale of the scheme it has been considered in its entirety.
- 1.3 This report will be utilised to inform and guide NCC input into further stages of work through the Examination of the DCO application, which is for a Nationally Significant Infrastructure Project (**NSIP**). This will include input into Local Impact Reports (**LIR**) and Statements of Common Ground (**SoCG**), as well as formal requests for information or responses to formal questions that may be required through the Examination or at any associated examination hearings.

## About AAH Planning Consultants and The Author

- 1.4 AAH Consultants comprises professional and accredited individuals. Our consultants are Chartered Members of the Landscape Institute (**CMLI**) and the Royal Town Planning Institute (**RTPI**).
- 1.5 This review has been prepared by Oliver Brown, who is a Chartered Landscape Architect within AAH with over 20 years' experience in landscape design and assessment, and considerable experience in landscape and visual matters associated with solar NSIP and associated DCO Applications.

## Relevant Documents

- 1.6 The Landscape and Visual review is based on the following documents (including sub-appendices) submitted to the Planning Inspectorate, which are available at: <https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN010159/documents>

The information downloaded and initially reviewed is as follows (which include any associated sub-appendices, and based on the document: *One Earth Solar Farm Examination Library*):

- **3.1 Draft DCO**
- **Plans / Drawings / Sections**
  - 2.1 Location Plan
  - 2.2 Land Plan
  - 2.3 Works Plan
  - 2.4 Streets rights of way and access plans
  - 2.5 Site Layout Plans
  - 2.7 Illustrative Masterplan
- **Environmental Statement**
  - 6.1 Chapter 1 - Introduction
  - 6.2 Chapter 2 - EIA Methodology
  - 6.3 Chapter 3 - Description of the Site and Surrounding Area
  - 6.4 Chapter 4 - Alternatives and Design Evolution
  - 6.5 Chapter 5 - Description of the Proposed Development
  - 6.11 Chapter 11 - Landscape and Visual
  - 6.18 Chapter 18 - Cumulative Effects
  - 6.19 Chapter 19 - Summary of Significant Environmental Effects
  - 6.20 Environmental Statement Volume 3 - Figure 3.1
  - 6.20 Environmental Statement Volume 3 - Figure 4.1
  - 6.20 Environmental Statement Volume 3 - Figures 11.1-11.14 - Part 1 to Part 19
  - 6.20 Environmental Statement Volume 3 - Figures 18.1-18.9

- 6.21 Appendix 11.1 Legislation, Policy and Technical Guidance
- 6.21 Appendix 11.2 Landscape and Visual Impact Assessment Methodology
- 6.21 Appendix 11.3 Landscape Baseline and Assessment
- 6.21 Appendix 11.4 Visual Baseline and Assessment
- 6.21 Appendix 11.5 Landscape and Visual Impact Assessment Consultation Summary
- 6.21 Appendix 11.6 Arboricultural Report
- 6.22 Non Technical Summary
- 5.8 Design Approach Document
- 5.9 Outline Design Parameters
- 7.7 Outline Landscape and Ecology Management Plan
- 7.16 Glint and Glare Assessment

**Please note:** this review is of the information available at the time of writing. Throughout the pre-examination and examination process additional information will be submitted, including updates and amendments to some of the documents listed above.

### **Previous Consultation**

1.7 As part of the DCO process, as stipulated by *The Planning Act 2008 (PA2008)*, VIAEM and AAH have carried out pre-application landscape and visual consultation with the applicant and relevant members of their design team over approximately a 12-month period; AAH on behalf of LCC and NKDC, and VIAEM on behalf of NCC. This has included discussion and consultation on:

- Expectations of the LVIA, including content and reflection of current best practice and guidance
- LVIA Methodology;
- ZTV parameters;
- Study Area extents (distance);
- Viewpoint quantity and locations;
- Accurate Visual Representations (**AVRs**), including the quantity and location, as well as type and Level.
- Mitigation Measures/Landscape Scheme/Site Layout;
- Cumulative landscape and visual effects, including identification of sites/projects; and
- Residential Visual Amenity Assessment (**RVAA**) if there are residential properties with receptors likely to experience Significant effects to their visual amenity.

1.8 Appendix 11.5 and paras. 11.3.35 to 11.3.35 and Table 11.6 of the LVIA summarises relevant consultation carried out for landscape and visual matters, and VIAEM have subsequently issued a Relevant Representation (**RR**) as part of the pre-examination process to summarise the high level comments on the submission and key areas for the subsequent DCO

examination to cover. For reference, the VIAEM RR is included within **Appendix A**, and this information has been utilised to inform this landscape and visual review.

## 2.0 Presentation of the LVIA

The following section provides a review of the presentation of the LVIA, based on the following criteria (where applicable):

- *Is the LVIA appropriate and in proportion to the scale and nature of the proposed development;*
- *Are findings of the assessment clearly set out and readily understood;*
- *Is there clear and comprehensive communication of the assessment, in text, tables and illustrations;*
- *Are the graphics fit for purpose and compliant with other relevant guidance and standards; and*
- *Are landscape and visual effects considered separately;*
- *Are receptors and all likely effects comprehensively identified;*
- *Does the LVIA display clarity and transparency in its reasoning, the basis for its findings and conclusions; and*
- *Is there a clear and concise summation of the effects of the proposals.*

### LVIA Chapter

- 2.1 The LVIA and associated figures, appendices and documents provide a thorough analysis of landscape and visual effects of the Development, and the level of information and detail is appropriate for the scale and type of development. The assessment is detailed and laid out in a logical manner, and the process of assessment is thorough and well explained. It has predominantly been carried out to best practice and guidance, primarily the *Guidelines for Landscape and Visual Impact Assessment (GLVIA3)* by the *Landscape Institute*, by a Chartered Landscape Architect. However, we have identified issues with some areas of the LVIA, that we have provided narrative on below, and the DCO examination provides an opportunity to explore these in more detail.



- 2.2 The LVIA clearly draws a distinction between **landscape effects** and **visual effects**, with the main chapter focussing on likely '**Significant**' effects. Paragraph 11.3.34 of the LVIA clarifies that *"Major and moderate effects (both beneficial and adverse) are considered to be likely significant in EIA terms."* And para. A.11.4.2. of Appendix 11.2 goes on to state that *"Following identification of the level of effect, an assessment of significance is provided. Major and moderate effects are considered to be significant in EIA terms. Minor, negligible, and no effects are considered not significant. "* This is acceptable, and provides a clear and transparent threshold to identifying Significant landscape and visual effects.
- 2.3 Paragraph A.11.4.1. of Appendix 11.2 clarifies professional judgement is applied to judgements throughout the LVIA, including the judgement of significance of effect by combining sensitivity of receptor and magnitude of change. This is promoted within GLVIA3, however it is important that the application of this judgement be explained and transparent throughout.
- 2.4 The ES presents an assessment of a 'worst case' scenario of the Development, based on design parameters presented in ES *Chapter 5: Description of the Proposed Development*. Section 5.2 goes on to describe the project parameters that the LVIA have assessed, and clarifies in para. 5.2.1 that to *"accommodate flexibility, a 'Rochdale Envelope' approach is used"* that *"involves the technical assessments being undertaken and based on a defined 'envelope' within which the project will be delivered, featuring maximum and minimum parameters, so that an assessment of the reasonable worst case scenario can be undertaken"*. However, the LVIA is not explicit in this regard, and while chapters 11.3.38 to 11.3.40 provide some information on assumptions that have been used at each phase of the scheme, in no location states or clarifies that the LVIA has been undertaken on a worst-case scenario regards to assessing the maximum parameters laid out in Chapter 5 and areas shown on Figure 2.3: Works Plan.
- 2.5 It has been assumed that the maximum parameters have been used within the LVIA chapter, however it should be clarified at the examination stage that this is the case. This includes an assumption that the assessment includes that all vegetation proposed to be removed on the *Vegetation Removal Plans* within Appendix C of the OLEMP and identified in Schedule 11 of the DCO would, ultimately, be removed. However, if proposed mitigation areas and existing retained vegetation proposals are changed in later, detailed design stages, the findings of the LVIA are likely to also change. Landscape mitigation, and vegetation retention and

protection, needs to be clarified and guaranteed as the assessment relies heavily upon it to reduce the residual landscape and visual effects of the Development.

- 2.6 The LVIA assesses landscape and visual effects at the main phases: **construction; operation and decommissioning**, with operation phase considered with and without landscape mitigation (year 1 effects and year 15 effects). The main phases of the project are detailed within *Chapter 5*. The LVIA considers the scheme in isolation, and *Chapter 18* of the ES considers the scheme **cumulatively** with other environmental matters, as well as similar type and scale projects in the local area.

### **LVIA Appendices**

- 2.7 The Appendices produced as part of the LVIA provide very detailed supporting information relating to the assessment. The appendices are clearly laid out and easy to follow and locate pertinent detailed information relating to the main chapter. The appendices are listed within section 11.1.5 of the LVIA, and are referenced throughout the report to support the findings and provide additional information.

### **LVIA Figures**

- 2.8 The Figures produced as part of the LVIA are appropriate in the level of detail provided and clarity of information presented. The figures are clearly listed within section 11.1.5 of the LVIA, and are referenced throughout the report to support and illustrate the findings.

### 3.0 Methodology and Scope

The following section provides a review of the LVIA Methodology based on the following criteria (where applicable):

- *Has the LVIA been prepared by ‘competent experts’;*
- *Is the methodology in accordance with relevant guidance and meets the requirements of the relevant Regulations;*
- *Does the methodology and scope of the LVIA meet the requirements agreed in discussions at the pre-application stage during scoping and consultation;*
- *Has the methodology been followed in the assessment consistently;*
- *Are the levels of effect clearly defined, and have thresholds and approach to judging significance been clearly defined;*
- *Is detail about various development stages provided and appropriately assessed;*
- *Have cumulative landscape and visual effects been addressed.*

#### LVIA Methodology

- 3.1 The LVIA Methodology is presented in section 11.3 of the LVIA and *Appendix 11.2: Landscape and Visual Impact Assessment Methodology*. Reference is made in section A.11.1.4 of Appendix 11.2 to best practice and industry guidance, including GVLIA3 and reference to *Notes and Clarifications on aspects of GLVIA 3, LI TGN-2024-01, Landscape Institute*. It clarifies in Section A.11.2.1. compliance with GVLIA3 by assessing both **landscape effects** and **visual effects** as interrelated but separate components.
- 3.2 The process and stages of assessment are clearly presented, including a baseline assessment, the detailing and review of the design, assessment of sensitivity (by assessing value and susceptibility), an assessment of magnitude of impact (in relation to size, scale, geographical extent, duration and reversibility) of the Development on the baseline conditions, and a determination of the significance of effects at all phases of the scheme (construction, year 1, year 15 (winter and summer as applicable) and decommissioning).

- 3.3 The study area selection and establishment are explained in detail within paragraphs 11.3.2 to 11.3.9 of the LVIA. The Study area is illustrated in Figure 11.1. The radius of the study area of 2km from the Order Limits has been defined for the LVIA, which is a reduced area to that initially used, which is defined as a 5km Area of Search as shown on Figures 11.3 to 11.6. The process and rational of reducing the initial 5km Area of Search to 2km is laid out in paragraph 11.3.5, providing appropriate justification and paragraph 11.3.8 clarifies that it is judged that *“Beyond the 2 km distance, there would not be significant adverse landscape and visual effects due to the intervening distance and vegetation patterns.”*. We have not identified anything on Site that would contradict the statement that there would not be Significant effects beyond 2km, and typically distance reduces the likelihood of this occurring. However, at the construction phase (and potentially operation with maintenance and replacement operations) traffic movement to and from the Site may have effects beyond 2km and it is not clear as to whether this has been considered. This needs to be clarified by the applicant.
- 3.4 The baseline conditions (from paragraph 11.3.10) have been determined following a mix of desk and field studies alongside consultation with appropriate consultees. Desk research has included the prevailing policy framework and fieldwork carried out by Chartered landscape architects.
- 3.5 The methodology in Appendix 11.2 is clear, with paragraphs A.11.2.12 to A.11.2.31 covering landscape effects and paragraphs A.11.3.1 to A.11.3.20 covering visual effects. Section A.11.4 of *Appendix 11.2* clarifies how the level or significance of landscape and visual effects are determined by combining judgements regarding the sensitivity of the receptor and the magnitude of the effect arising from the Development.
- 3.6 Tables within the methodology provide criteria for assessment of value, and susceptibility, and subsequently how these have been combined to provide a judgement on sensitivity. These tables provide clear indicative criteria of the assessment of landscape and visual value, susceptibility, sensitivity and magnitude of effects. The utilisation of professional judgement is promoted within the methodology, should an effect be different to that presented within the tables.
- 3.7 The assessment methodology has been carried through into the main assessment and used consistently.

- 3.8 The assumptions made on plant growth rates in Section 11.3.40 are generally acceptable, however we would state these are at the higher end of the scale as to what we would deem acceptable for a fifteen-year period: fifteen years being the period that residual effects have been assessed in the LVIA. We would query as to whether the plant growth rates allow for issues during the establishment period, and allow for any plant replacements to be carried out along with planting establishing should there be plant failures or lack of acceptable growth. These plant growth rates are dependent upon the successful implementation of a robust and well considered OLEMP, which is covered in further sections of this review.
- 3.9 Given the stated operational time of 60 years, there is a concern regarding the assumptions of reversibility and duration. Having reviewed the sections relating to this from GLVIA3 and other related guidance, it is clear that this project is long term. Given that 60 years is comparable to at least two generations, there is some considerable strength to the consideration that this would amount to a permanent project, as opposed to a temporary one, especially considering the average lifespan of building design is circa 50 years. If deemed a permanent Development, which it is our position, this is likely to have a bearing on the judgements of effects, as typically a temporary scheme reduces the magnitude of a change. Therefore, the majority of judgements on longer term effects (15 years+) need to be re-visited and adjusted so as to be permanent, and not *partly reversible*.
- 3.10 We would also recommend that the applicant consider fully that in this 60-year timescale, the panels, inverters, batteries and other associated elements will be replaced. It is stated in the ES within *Table 5.5 Indicative Design Life* of Chapter 5 that this would likely be once for panels, however Inverters and batteries may be more regularly. Also, given the pace of technology, it should be considered if it is likely that the panels could be replaced on numerous occasions. At this stage we would need additional information regarding the phases of replacements in order to consider whether there is one single construction stage, or a series of staged re-construction stages, and activity and deliveries, potentially of large-scale equipment, be for the life of the scheme.

### **ZTV Methodology**

- 3.11 The process of modelling Zones of Theoretical Visibility (ZTVs) and subsequent presentation on Figures 11.3 to 11.6 is summarised in paras. 11.4.81 to 11.4.88. Para 11.4.82 references *Appendix 11.1: Legislation, Policy and Technical Guidance* for a methodology for the ZTVs,

however we assume this is an error, and the correct reference should be to *Appendix 11.2: Landscape and Visual Impact Assessment (LVIA) Methodology*. Within Appendix 11.2, a methodology and parameters of the ZTV generation is provided within section A.11.3. The methodology, execution and presentation on Figures 11.3 to 11.6 is acceptable, with elements modelled to their maximum parameters.

### **Visualisation Methodology**

- 3.12 The process of delivering visualisations is presented within paras. A.11.3.9 to A.11.3.12 of *Appendix 11.2*. This states that they were prepared in accordance with the Landscape Institute *TGN 06/19 Visual Representation of Development Proposals*. Paragraph A11.3.12 clarifies that photomontages have been presented to the maximum allowed parameter heights, and the proposals modelled and presented using visualisations generated with the maximum parameters provided within *Chapter 5: Description of the Proposed Development*, as this would provide a 'worst case' visualisation.

## 4.0 Appraisal of Landscape Baseline and Effects

The following section provides a review of the Landscape Baseline and Effects, based on the following criteria (where applicable):

- *Has the methodology been followed in the landscape assessment?*
- *Are all landscape receptors and all likely effects comprehensively identified and assessed?*
- *Has the value and susceptibility of landscape resources been appropriately addressed and at appropriate scales (e.g., site, local, regional, and national)?*
- *Is there a clear and concise summation of the landscape effects of the proposals? and*
- *Are potential cross-over topics, such as heritage or ecology, addressed?*

### Landscape Baseline

- 4.1 The Landscape Baseline is considered in section 11.4 of the LVIA, with Figure 11.1 illustrating the Scheme Location, Order limits and 2km Study Area. The Site covers 1,409 hectares of predominantly agricultural land located to the east and west of the River Trent. Located across three local authorities (Bassetlaw, Newark and Sherwood, and West Lindsey), and two counties; however the majority of the Site is within Nottinghamshire, with approximately 15% of the Order Limits within Lincolnshire.
- 4.2 The baseline follows the LVIA methodology and begins by identifying baseline landscape characteristics, as well as relevant designations, of the study area and the Site. This is summarised in the LVIA chapter and further detail is provided in *Appendix 11.3: Landscape Baseline and Effects*. Paragraphs 11.4.2 to 11.4.18 provide a narrative on the existing landscape baseline of the Site, with paragraphs 11.4.19 to 11.4.39 covering the Study Area.
- 4.3 The LVIA acknowledges the low lying and gently undulating, agricultural and open character of the Site and Study area.
- 4.4 Published landscape character assessments are considered from paragraphs 11.4.40 to 11.4.67 and illustrated in Figures 11.17a (Regional – Greater Nottingham), 11.17b (Regional – East Midlands), and 11.18 (District - Greater Nottingham), with further detail provided in

*Appendix 11.3: Landscape Baseline and Effects.* We have assumed the author acknowledges that the Site and Study Area reflect the boundaries and characteristics of the published character assessments, however a clear statement on this would clarify.

- 4.5 The Future baseline is covered in paras. 11.4.147 and 11.4.148. The Development of solar farm projects in the area is acknowledged to be a factor in the future baseline, although this feels underplayed within the LVIA. This is a landscape undergoing extensive change to land-use, predominantly changing from agriculture to large scale solar Development. While at the time of writing no other schemes were identified within the 2km Study Area, we have concerns regarding effects on the national, county and regional landscape character areas. The mass and scale of these projects combined has the potential to lead to adverse effects on landscape character over an extensive area across these published character areas. The landscape character of the local, and potentially regional area, may be completely altered over the operational period through an extensive area of land use change, and introduction of energy infrastructure in an area that is predominantly agricultural. This would also be an issue when experienced sequentially for visual receptors travelling through the landscape and experiencing multiple schemes across potentially several kilometres, albeit with gaps between some of the projects. However repeated views and presence of large scale solar would combine over time to create a greater perception of change.
- 4.6 To calibrate this change to the landscape, these schemes combined, if built, would clearly require the update of any published landscape character assessment, including at a national level (NCA's), so as to include large scale solar as a defining land use characteristic as well as agriculture. This is a clear and marked change to landscape character, and several schemes have already been approved, with many in the planning system. It should also be noted that other renewable and energy infrastructure projects (such as Solar, BESS, Hydrogen, Pylons and cables along with associated infrastructure) are planned in the region, including NSIP and DCO schemes as well as TaCPA scale projects. These will all combine to change the character of the wider landscape.
- 4.7 The LVIA contains a local village landscape character assessment, as shown on *Figure 11.9: Local Village Character Areas*, with detailed information provided within *Appendix 11.3: Landscape Baseline and Effects*. This covers an assessment of the character of 17 villages, along with their settings. It is unclear as to whether the LVIA author judged the villages were not adequately covered by published character assessment, or if it was felt through more



recent developments these needed to be updated, however this additional information provides a more rounded baseline and understanding of these settlements.

- 4.8 This baseline process, undertaken by the applicant, resulted in several landscape receptors for the assessment of effects on them by the Development. These are presented in Table 11.8 and include a variety of scales. NCA 48 has been scoped out of further assessment, which we agree with as these large national character areas are often best used for context. Table 11.8 summarises an assessment of Landscape Value, Susceptibility and subsequently Sensitivity of all identified receptors. Further detail of the landscape baseline, and judgements of Landscape Value, Susceptibility and Sensitivity is contained within *Appendix 11.3*.

### **Landscape Assessment**

- 4.9 The Landscape Assessment is detailed within section 11.6 of the LVIA, which refers to *Appendix 11.3: Landscape Baseline and Assessment*, which includes a clear assessment of Value and Susceptibility, and subsequently the Sensitivity of the landscape receptors, which is aligned with the criteria provided within the methodology. The landscape assessment commences with construction effects at para. 11.6.2, with Year 1 of Operation Landscape Effects at para 11.6.15, and Year 15 Operation Landscape Effects at para. 11.6.27.
- 4.10 As agreed at the pre-application stage, the National Character Areas have not been assessed and are referred to for context only.
- 4.11 In line with the methodology, the assessment of the landscape effects considers the change to the identified landscape receptors at construction, operation (both years 1 and 15) and decommissioning. This includes Landscape Character Effects within the Order Limits (which would be direct) and Landscape Effects within Published Landscape Character Areas (which would be both direct and indirect).
- 4.12 The LVIA identifies Significant landscape effects at the phases of **construction**, **operation (year 1)**, **operation (year 15)**, and **decommissioning** phases. The following effects upon identified landscape receptors are identified in the LVIA:
- At **Construction** the following receptors were assessed as having the following landscape effects:

- Order Limits: **Major adverse: Significant**
  - ENS PZ 01: North Clifton Village Farmlands: **Moderate adverse: Significant** (temporary);
  - TW PZ 20: Dunham on Trent Village Farmlands: **Major adverse: Significant**
  - TW PZ 44: Fledborough Holme River Meadowlands: **Moderate adverse: Significant.**
  - MNF PZ 09: East Drayton: **Moderate adverse: Significant**
  - MNF PZ 12: Normanton-On-Trent: **Major adverse: Significant**
  - LVCA Fledborough: **Major adverse: Significant**
  - LVCA North Clifton: **Moderate adverse: Significant**
  - LVCA Ragnall: **Moderate adverse: Significant**
  - LVCA Skegby: **Moderate adverse: Significant**
- At **Operation (Year 1)** the following receptors were assessed as having the following landscape effects:
    - Order Limits: **Major adverse: Significant**
    - ENS PZ 01: North Clifton Village Farmlands: **Moderate adverse: Significant** (temporary);
    - TW PZ 20: Dunham on Trent Village Farmlands: **Major adverse: Significant**
    - MNF PZ 09: East Drayton: **Moderate adverse: Significant**
    - MNF PZ 12: Normanton-On-Trent: **Moderate adverse: Significant**
    - LVCA Fledborough: **Major adverse: Significant**
    - LVCA Ragnall: **Moderate adverse: Significant**
  - At **Operation (Year 15)** the following receptors were assessed as having the following landscape effects:
    - Order Limits: **Moderate adverse: Significant**
    - TW PZ 20: Dunham on Trent Village Farmlands: **Moderate adverse: Significant**
    - MNF PZ 09: East Drayton: **Moderate adverse: Significant**
    - LVCA Fledborough: **Major neutral: Significant**
    - LVCA Ragnall: **Moderate neutral: Significant**
  - At **Decommissioning**, effects would be similar to those at the construction phase, however, the Site and local landscape will benefit from established planting associated with the scheme.

4.13 These 'Significant' effects represent direct effects on the landscape of the entirety of the Site. At year 15, the Order Limits (entirety of the 1,409 hectare Site) has been assessed as having a Significant Residual effect even when mitigation planting has established. The landscape character areas of TW PZ 20: Dunham on Trent Village Farmlands, and MNF PZ 09: East Drayton, as well as LVCA Fledborough and LVCA Ragnall have also been judged by the author as having Significant Residual effects, even when mitigation planting has established.

- 4.14 This accounts for a direct Significant effect on these landscape receptors. This equates to a considerable change to landscape character across an extensive area; introducing a mass of development with industrial characteristics in an open agricultural landscape, affecting the sense of openness, seasonal rhythm of farming practices and rural tranquillity currently experienced.
- 4.15 However, several landscape character areas that will also have direct effects at all phases have not been judged to have Significant residual effects. This appears inconsistent with the findings of effects to the Order Limits and landscape character areas of TW PZ 20 and MNF PZ 09, and we would judge that all landscape character areas directly affected by the Development would have residual Significant effects – primarily through a change of land-use.
- 4.16 Localised removal of vegetation is identified in the assessment of landscape effects; however, it is unclear whether this includes vegetation works on the wider highways network, and what this would entail. We strongly recommend limiting vegetation loss along Site boundaries for access or sight lines, or along construction access routes, because this has the potential to change the character of the local landscape beyond the limits of the Development.

## 5.0 Appraisal of Visual Baseline and Effects

The following section provides a review of the Visual Baseline and Effects, based on the following criteria:

- *Has the methodology been followed in the visual assessment?*
- *Are all visual receptors and all likely effects comprehensively identified and assessed?*
- *Has the value and susceptibility of visual resources been appropriately addressed?*
- *Is there a clear and concise summation of the visual effects of the proposals?*
- *Are the viewpoints that have been used appropriate and meet the number, location and requirements agreed in discussions at the pre-application stage during scoping and consultation?*
- *Are the Visualisations/Photomontages that have been used appropriate and meet the number, location and requirements agreed in discussions at the pre-application stage during scoping and consultation?*

### Visual Baseline

5.1 The Visual Baseline is considered in section 11.4 of the LVIA, and describes in paragraph 11.4.77 that the primary visual receptors identified in the Study Area likely to be affected by the Development are Residents; Users of PROW; Users of local road network; Users of the River Trent. The process of identifying visual receptors is identified as a two-stage process:

- Stage 1 (as described from para. 11.4.80) is a desk-based assessment which commenced with the Development of a Zone of Theoretical Visibility (**ZTV**) analysis, used to assist and identify potentially sensitive receptors.
- Stage 2 (as described from para. 11.4.89) comprises fieldwork across the Site and Study Area utilising the ZTVs generated to identify visual receptors likely to experience views of the construction, operation or decommissioning of the Development and identify and capture representative views (viewpoints).

- 5.2 Paras. 11.4.92 to 11.4.142 provide a useful overview narrative of the visual baseline, focussing on visual receptors and using reference to the sixty-three representative viewpoints to support the narrative. An overall summary of the visibility of the Site is provided at para. 11.4.144, and Table 11.9 identifies visual receptors for the assessment of effects on them by the Development. While this Table is structured around viewpoints, so potentially in contradiction with recent Landscape Institute (LI) *Technical Guidance Note LITGN-2024-01*, the viewpoints have been used to identify and group visual receptors, so does provide an appropriate baseline.
- 5.3 Table 11.9 summarises an assessment of Visual Value, Susceptibility and subsequently Sensitivity of all identified receptors. Further detail of the visual baseline, and judgements of Visual Value, Susceptibility and Sensitivity is contained within *Appendix 11.4 Visual Baseline and Assessment*.
- 5.4 The selection of the sixty-three viewpoints formed part of the pre-application consultation and includes locations recommended as part of this process. These viewpoints are presented as baseline photographs within *Figure 12 (multiple sheets)*. The baseline follows the LVIA methodology and considers the consultation undertaken at the pre-application stage.

### **Visualisations/Photomontages**

- 5.5 Viewpoints representative of the visual receptors were identified through consultation and agreed upon. This baseline process resulted in the identification of eighteen viewpoints to be developed as Type 3 (photomontages) visualisations and presented in *Figure 11.13: Winter Photomontages*; and *Figure 11.14: Summer Photomontage*. A methodology for photography and visualisations is provided in *Appendix 11.2: Landscape and Visual Impact Assessment Methodology*, which clarifies that the photomontages have been prepared to *Landscape Institute's TGN 06/19*.

### **Visual Assessment**

- 5.6 The Visual Assessment is detailed within section 11.6 of the LVIA and detailed within *Appendix 11.4: Visual Baseline and Assessment*. The assessment of value and susceptibility, and subsequently the sensitivity of visual receptors and viewpoints is summarised within the baseline of the LVIA and detailed within *Appendix 11.4*, which is aligned with the criteria

provided within the methodology. A viewpoint analysis has been carried out on the sixty-three viewpoints to inform the assessment of magnitude and significance of residual effects on visual receptors.

- 5.7 However, we judge that the visual assessment does not fully align with guidance provided within LI *Technical Guidance Note LITGN-2024-01*. This clarification by the LI clearly states that the focus of a visual assessment should be on visual receptors, with viewpoints being utilised to illustrate potential views. Section 6(7): “Assessing viewpoints or visual receptors?” clarifies:

*“The focus of the visual assessment should be the visual receptors (i.e. the people as set out within paragraph 6.31. of GLVIA3). The purpose of viewpoints is covered at paragraph 6.19 (i.e. for illustration of the visual effects).”*

- 5.8 The visual assessment only focusses on a static viewpoint for the assessment, and does not fully consider the experience of a receptor, such as a walker along a PROW, or driver along a road. The experience and effects will be different depending on the experience, such as traveling along a linear route. The visual assessment does not fully account for this, and if only relying on a static viewpoint and describing the existing view and change to that view, is likely underplaying visual effects. For example, users of public bridleway NT/North Clifton/BW10, will have a varying experience along the route, as well as varying views of the Development. This receptor will have closer range, and likely clearer views of the Development while passing through the south eastern section of the Site, however their visual experience is only captured and described in one static view at Viewpoint 9, which is much further from the built elements, and subsequently likely to have been assessed as having a lesser effect.
- 5.9 The visual effects of the Development are likely exacerbated when travelling through the area either along PROW or local roads between villages, and the sequential effects of a large scale solar site, spread over an extensive area, potentially creates the perception of being surrounded by solar development. Frequent sequential views would create a change to the experience of visual receptors as well as change the perception of character of an entire area – these don’t necessarily need to be clear open views.

5.10 Therefore, it needs to be clarified as to how sequential views and the experience of the receptor, rather than a static viewpoint, have been fully considered within the LVIA, particularly with the visual assessment being structured around viewpoints.

5.11 For further clarity and reference, GLVIA3 defines types of sequential visual effects as either: Combined (in same view) or Sequential. Table 7.1 regarding Cumulative visual effects states:

*“Sequential: Occurs when the observer has to move to another viewpoint to see the same or different developments. Sequential effects may be assessed for travel along regularly used routes such as major roads or popular paths:*

*- Frequently Sequential: Where features appear regularly and with short time lapses between instances depending on speed of travel and distance between viewpoints*

*- Occasionally sequential: Where longer time lapses between appearances would occur because the observer is moving very slowly and/or there are larger distances between viewpoints.”*

5.12 The visual assessment commences with construction effects at para. 11.6.11, with Year 1 of Operation Visual Effects at para 11.6.23, and Year 15 Operation Visual Effects at para. 11.6.35.

5.13 The LVIA identifies Significant visual effects at the **construction, operation (year 1), operation (year 15)**, and **decommissioning** phases.

5.14 The following Significant effects are identified in the LVIA, summarised in paragraphs 10.9.55 to 10.9.136 (for construction effects ) and 10.9.194 to 10.9.333 (for operation effects – both year 1 and residual at year 15) within the LVIA:

- **At Construction:**
  - **Major Adverse** (Significant) visual effects for:
    - National Cycle Network (Route 647)
    - Moor Lane;
    - Public bridleway (NT/Darlington/BW1);
    - Public footpath (NT/Ragnall/FP4);
    - North of Ragnall;
    - Public bridleway (NT/Ragnall/BW3).

- **Moderate Adverse** (Significant) visual effects for:
  - Trent Valley Way;
  - A1133;
  - A57;
  - Public bridleway (NT/North Clifton/BW10);
  - Public bridleway (NT/Thorney/BW19);
  - Public byway open to all traffic (NT/North Clifton/BOAT9);
  - Public footpath (NT/North Clifton/FP4);
  - public footpath (NT/Fledborough/FP11);
  - Skegby Road;
  - Public footpath (BT/Fledborough/FP7);
  - Main Street, Fledborough;
  - Hollow Gate Lane, Fledborough;
  - Public footpath (NT/Ragnall/FP2);
  - Public footpath (NT/Darlton/FP8);
  - Church of St Leonard Cemetery, Ragnall;
  - Public footpath (NT/Darlton/FP2);
  - Public footpath (NT/East Drayton/FP3).

These are typically identified for receptors on the road and PROW network, along with residents of Ragnall, Skegby and nearby farmsteads, such as Moor Farm, that are in close proximity to the Development with limited or absent screening allowing for clear views. These **Moderate** and **Major Adverse** effects are considered to be Significant and would result from the proposed construction activity seen at close range across a wide extent of a view. No Significant effects at the construction phase have been identified beyond approximately 200 m of the Order Limits.

- **At Operation (Year 1):**

- **Major Adverse** (Significant) visual effects for:
  - National Cycle Network (Route 647);
  - Moor Lane;
  - Public bridleway (NT/Ragnall/BW3).
- **Moderate Adverse** (significant) visual effects for:
  - A1133;
  - A57;
  - Public bridleway (NT/North Clifton/BW10);
  - Public bridleway (NT/Thorney/BW19);
  - public footpath (BT/Fledborough/FP7);
  - Hollow Gate Lane, Fledborough;
  - Public bridleway (NT/Darlton/BW1);
  - Public footpath (NT/Ragnall/FP2);
  - Church of St Leonard Cemetery, Ragnall;
  - Public footpath (NT/Darlton/FP2);
  - Public footpath (NT/East Drayton/FP3);
  - North of Ragnall.



These represent a reduction in receptors experiencing Significant effects and also two receptors (views from receptors from *public bridleway (NT/Darlington/BW1)*, and *north of Ragnall*) have reduced in the level of Significance: from Major to Moderate adverse. While there are still several receptors identified as experiencing Significant adverse visual effects from the Development, we would query as to how views that are temporary in nature (at construction) to those of a long term/permanent change are able to reduce, especially as at this stage, any mitigation planting is yet to establish and is subsequently providing limited screening or integration of the Development. This needs to be clarified.

- At **Operation (Year 15)**:
  - **Major Adverse** (Significant) visual effects for:
    - National Cycle Network (Route 647);
    - Public bridleway (NT/Ragnall/BW3).
  - **Moderate Adverse** (Significant) visual effects for:
    - A1133;
    - Public bridleway (NT/North Clifton/BW10);
    - Public bridleway (NT/Thorney/BW19);
    - Moor Lane;
    - Public bridleway (NT/Darlington/BW1);
    - Public footpath (NT/Ragnall/FP2);
    - North of Ragnall.

These represent a further reduction in receptors experiencing Significant effects through the establishment of mitigation planting over 15 years from planting. The LVIA therefore identifies that several visual receptors will experience Significant adverse effects over the remaining 45 years of the development.

- At **Decommissioning**, effects would be similar to those at the construction phase, however, the Site and local landscape will benefit from established planting associated with the scheme, which would provide screening and integration in views.

5.15 The Development has been identified in the LVIA as resulting in a Significant change to a variety of visual receptors during construction and in the early years of operation and maintenance, with Significant *residual* visual effects much reduced in number, which suggests a potential over reliance upon mitigation planting to screen the proposals without full attention to the potential impact of this screening on the landscape. These residual Significant effects have been identified as arising from sensitive users on the road and PROW network, along with residents that are in close proximity to the Development. No Significant residual effects have been identified beyond approximately 200 m of the Order Limits. The reduction in Significant visual effects relies upon the successful establishment of the

mitigation planting scheme and a robust OLEMP that is carried out for a suitable period of time.

- 5.16 Nine receptors are identified in the LVIA as likely to experience Significant residual visual effects. This is a concern, and indicates that the scale and extent of Development makes impossible to mitigate all potential visual effects, and there is a potential that all Significant effects have not been fully identified due to the assessment being focussed on static viewpoints rather than visual receptors, which could experience views of the Development along a linear route. We also have concerns that the mitigation planting itself has the potential to cause adverse visual effects through blocking or foreshortening currently open views, appearing out of character or creating a perception of enclosure in an open landscape. Further detail is provided in the mitigation section below, but the mitigation planting must be well considered at any detail design stage, and not simply put in place to screen views of development.
- 5.17 Access, and the wider highways elements of the scheme, do not appear to be fully considered in the LVIA beyond increased traffic during construction and decommissioning phases. This is despite the potential for adverse effects on the views of the rural landscape including potential vegetation loss, urbanisation and reduction of visual amenity. Consequently, the visual effects during construction may be underestimated within the LVIA due to the impact of loss of vegetation in the wider landscape. We recommend limiting vegetation loss along site boundaries, for access or for sight lines, or along construction access routes, as this has the potential to change the character of the local landscape beyond the limits of the Development. Clarification on this matter by the applicant should be provided.

## 6.0 Appraisal of Cumulative Landscape and Visual Effects and Residential Visual Amenity Assessment

The following section provides a review of the cumulative effects and Residential Visual Amenity Assessment (RVAA), based on the following criteria:

- *Have cumulative landscape and visual effects been addressed?*
- *Are the RVAA and cumulative effects methodologies in accordance with relevant guidance and meet the requirements of the relevant Regulations?*
- *Does the methodology and scope of the assessment of cumulative effects and RVAA meet the requirements agreed in discussions at the pre-application stage during scoping and consultation?*
- *Has the methodology been followed consistently?*
- *Are residential and cumulative receptors and all likely effects comprehensively identified?*
- *Are any residential properties (receptors) likely to experience significant effects to their visual amenity?*

### Cumulative Methodology

6.1 Cumulative landscape effects are considered in *Chapter 18: Cumulative Effects*, and not summarised in the LVIA chapter. It would have been useful to provide a brief summary in the LVIA chapter, however the cumulative landscape and visual effects section within ES Chapter 18 is dealt with separately in *Table 18.3 Inter-Project Cumulative Effects Assessment*, and provides a clear assessment of the cumulative landscape and visual effects.

6.2 The Cumulative Study Area for landscape and visual is identified within *Table 18.2: Environmental Aspect Spatial Zone of Influence* which clarifies that a 2km zone of influence from the order limits has been considered for cumulative Landscape and Visual matters.

## Cumulative Landscape and Visual Effects

6.3 Cumulative landscape and visual effects are those that: *“result from additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other developments”*.

6.4 Table 18.3 *Inter-Project Cumulative Effects Assessment* identifies the schemes that have been considered in the cumulative assessment, and of those only two have been identified as having Significant Landscape and Visual cumulative effects:

- **21/01577/FULM:** Installation of a solar farm and battery storage facility with associated infrastructure: A **moderate to major adverse** cumulative effect interaction (Significant) would arise for construction and operation respectively to the landscape character of MNF PZ 12.
- **EN020034:** North Humber to High Marnham: A **moderate to major adverse** cumulative effect interaction (Significant) would arise for construction and operation respectively to the visual amenity of users of PRoW to the south of East Drayton.

Significant cumulative effects are identified through extending the overall area of development, increasing the land use area changed from agricultural to energy infrastructure, and also visually through increasing the extent the schemes may likely be visible by receptors.

6.5 We also have concerns regarding cumulative effects on the national, county and regional landscape character areas from multiple solar projects both approved and also in the system, having the potential to be constructed across the Nottinghamshire and Lincolnshire regions. While this has been identified in the baseline review, it is important to re-iterate this point.

6.6 The mass and scale of several NSIP scale energy projects combined has the potential to lead to adverse effects on landscape character over an extensive area across these published character areas. The landscape character of the local, and potentially regional area, may be completely altered over the operational period through an extensive area of land use change, and introduction of energy infrastructure in an area that is predominantly agricultural. This would also be an issue when experienced sequentially for visual receptors

travelling through the landscape and experiencing these schemes across potentially several kilometres, albeit with gaps between the schemes. However repeated views and presence of large scale solar would undoubtedly increase the susceptibility of receptors to changes in view.

### **Residential Visual Amenity and Settlements**

- 6.7 Residential Visual Amenity has been considered as part of the LVIA, which is detailed in para. 11.3.13, clarifying that 20 properties were visited to review residents' views. The *Siting and Design* section of the LVIA (para. 11.5.8 onwards) also goes on to explain how the site layout and mitigation has responded to properties, with a section dedicated to the *Design response to dwellings* at para. 11.5.14 along with detail provided within *Table 11.10 Residential mitigation*. This goes some way to demonstrate an iterative design approach and reaction to the findings of the initial assessments carried out, however does not provide information at a level to clearly identify the potential effects on residential visual amenity.
- 6.8 Residential Visual Amenity Assessment (**RVAA**) is a stage beyond Landscape and Visual Impact Assessment and focuses exclusively on private views and private visual amenity, whereas the LVIA process is typically associated with public views from public areas. The Landscape Institute's Technical Guidance Note 2/19: '*Residential Visual Amenity Assessment*' provides further detail and that that the Residential Visual Amenity Threshold (**RVAT**) is reached when the change to visual amenity of residents in individual properties identified as "*having the greatest magnitude of change*". On this scheme, due to the scale and extents, as well as height of some elements (e.g. Sub stations being up to 13.5m high) we would anticipate that some residents may experience Significant adverse visual effects from several properties, and while it is generally unlikely that properties will reach the RVAT through the Development of a solar farm, it is not possible to understand this process or any findings as they have not been presented. It would be beneficial for the applicant to clarify their position in regards to RVAA and why the initial residential visual amenity surveys have not been presented to aid transparency.
- 6.9 However, we do acknowledge that the LVIA does consider settlements and views from residents within these, but a robust methodology as to how individual properties have been identified (study area) and how their visual amenity would be affected should be provided.

## 7.0 Mitigation and Design

The following section provides a review of the Mitigation and Design, based on the following criteria:

- *Is there evidence of an iterative assessment-design process and it is clear that this has informed the site redline, layout and primary and secondary mitigation?*
- *How appropriate is the proposed mitigation?*
- *Are potential cross-over topics, such as heritage or ecology, addressed and incorporated within the mitigation?*
- *Is the long-term management of existing and proposed vegetation properly addressed in any management plans to promote establishment?*

### Evidence of Iterative Process

- 7.1 The scheme has been presented as evolving through an iterative process, with the landscape and visual findings feeding back into the design. This has been evident at consultation workshops and meetings held between the applicant and NCC, LCC, NSDC and community engagement sessions.
- 7.2 This is clarified in paragraph 11.5.9 which states that the scheme has: *“Mitigation of the potential for impact on landscape character and visual amenity has been a key consideration in the iterative design process and has therefore informed the siting of key elements”*. It is noted that the layout appears to respond to issues and points raised through these sessions and the AAH TMs that were subsequently issued.
- 7.3 Paras. 11.5.9 and 11.5.10 of the ES describes how the scheme has responded to landscape and visual matters. The design appears to have a clear evolution through different stages of the masterplan. The mitigation has responded to the recommendations of the local landscape character area reports and feedback from community events and statutory consultees. However, some of the proposed hedgerows will sit at odds with the rhythm of the existing landscape pattern and grain, and will likely appear to be out of character and potentially jarring in views. These include hedgerows planted in areas west of the River Trent

around Ragnall and east of Main Street. These hedgerows would generally not align with recommendations in local landscape character assessment, which recommend developments work within the existing and historic field boundary structure.

### **Mitigation Measures**

- 7.4 Landscape and Ecology proposed as part of the Scheme is covered by Work Order 8, which is subsequently located according to the Works Plans (Figure 2.3).
- 7.5 Paras. 11.5.9 and 11.5.10 6 of the LVIA describes the embedded mitigation measures of the scheme which avoid, where practicable, adverse effects on the landscape and views. This process is described in more detail within ES Chapter 5. These mitigation proposals reference a series of documents within the DCO package, in particular the Design Approach document which lays out how landscape and visual matters have been addressed within the design.
- 7.6 The *Outline Landscape and Ecology Management Plan* provides information regarding the establishment and maintenance of the planting associated with the Development, as shown on *Figure 2.7: Illustrative Masterplan* and in more detail within the *Mitigation Plan* within Appendix A of the OLEMP.
- 7.7 The success of the landscape mitigation to meet the objectives laid out in the management plan - to integrate and screen proposals, promote conservation and protection of the environment, and encourage ecological and habitat diversity - is highly dependent upon the successful management and maintenance of the new planting, as well as the protection of existing trees and hedgerows. The maintenance operations provide an initial overview of operations; however, we would expect the management plan to be developed further, well beyond the initial 5-year period, particularly if landscape and visual effects are being assessed at 15 years. The long-term reduction in landscape and visual effects, presented in the LVIA, are based on the long-term success of the landscape mitigation, and therefore the management plan should cover at least this period, and should be in place and actively managed for the lifetime of the project. Similarly, any early planting (pre-construction) should be included in the maintenance plan as the reduction in effects described in the LVIA are also based on the assumption that this too will have established as planned.

- 7.8 Monitoring of the proposals is a key aspect of the mitigation plan and is something which needs further development to ensure there is sufficient robustness to deal with the challenging climatic conditions when it comes to establishing new planting. The updating of the management plan every 5 years after the initial 15 year establishment period will go some way to ensuring that it is kept valid and can respond to issues and trends effectively, such as climate change. Plant replacements should also be considered, and also for a longer period than a “standard” 5 years, and cover for scenarios where there are large areas that have not established, or areas of significant die back beyond a 5 years period.
- 7.9 While the submission includes landscape proposals, these are of a high level and it would be expected that if the project proceeds much more detailed plans would be submitted and subsequently agreed with the appropriate consultee/authority prior to the commencement of any works, which would be secured as a Requirement of the DCO. This would include clear detail of the areas of landscape mitigation, location and types of planting (species), as well as number, density and specification. The mitigation illustrated on *Figure 2.7: Illustrative Masterplan* and the *Mitigation Plan* within Appendix A of the OLEMP, secured via Work Order 8 on the Works Plans and DCO, has been utilised to assess the landscape and visual effects of the scheme, therefore we would expect any detailed landscape proposals to consist of the area and extent shown on these plans as a minimum.
- 7.10 We accept that planting can be an effective way to screen development proposals and add valuable landscape and ecological elements into the landscape, however this needs to be carried out in a way that is sensitive to the existing landscape character, or meet any aims of a published character assessment to improve or introduce new planting to an area. While residual visual effects have been assessed as reducing at 15 years through mitigation planting, this is completely dependent upon the successful establishment of the planting and it growing in a manner that is anticipated within the LVIA, and illustrated on the accompanying visualisations. This is always going to be a risk, and if the planting does not establish as anticipated, the residual effects will likely be higher than judged.
- 7.11 This is an open landscape, and planting to simply screen could have detrimental impacts. The PROW and local roads in the study area enjoy an open aspect across most areas of the Study Area, for example from along public footpath NT/Ragnall/FP2 (as illustrated on VP43) with views across the Site to the River Trent and rising land beyond. Therefore, care needs to be taken to prevent the loss of this character through an overbearing set of mitigation



proposals. It is noted that appropriate development offsets, and with careful design, will go some way to address the matter raised, however this has also resulted in some anomalous hedge alignments, as identified in paragraph 7.3 above.

## 8.0 Conclusions and Recommendations

The following section provides an overall summary and conclusion on the suitability of the Landscape and Visual elements of the DCO Application and whether they are sufficient to support an informed decision. This includes the adequacy of the LVIA, reviewed in accordance with the Landscape Institute *Technical Guidance Note 1/20 (10 Jan 2020): Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs)*.

Finally, there are recommendations for further information that should be provided to assist in the examination of the DCO Application.

### Summary and Conclusions on the LVIA

- 8.1 The LVIA and the associated figures, appendices and documents provide a thorough analysis of the Development and is appropriate to the scale and context of the Site. The process of assessment is thorough and well explained in the volumes, which include a clear summary of findings and identification of Significant effects on the landscape and visual baseline. There are some parts of the assessment that we have highlighted issues with, which are summarised below.
- 8.2 By reason of its mass and scale, the Development would lead to Significant adverse effects on landscape character and visual amenity at all main phases of the scheme (construction, operation year 1, operation year 15). The Development has the potential to transform the local landscape by altering its character on a large scale across an extensive area. This landscape change also has the potential to affect a wider landscape character, at a regional scale, by replacing large areas of agricultural or rural land with solar development, affecting the current openness, tranquillity and agricultural character that are identified as defining characteristics of the area. We also judge that this would likely be classed as a permanent project in regards to landscape and visual matters, spanning several generations. As such, the likely effects may be understated as the author has deemed residual effects would be partly reversible.
- 8.3 The scale and extent of development would also lead to Significant adverse effects on views from receptors, by altering from views within an agricultural or rural landscape to that of a

landscape with large scale solar development. We have highlighted some issues with the visual assessment within the LVIA and compliance with the recent Landscape Institute *Technical Guidance Note LITGN-2024-01*; The assessment is structured around static views rather than the experience of the visual receptor which should include for sequential and varying views. This should be reviewed further as part of the DCO examination, as the extent of visual effects do not appear to have been fully considered.

- 8.4 The cumulative landscape and visual effects of the Development have the potential to bring about Significant landscape and visual effects, however adjacent schemes identified within the ES are relatively small in comparison with the wider One Earth order limits schemes. We have concerns regarding effects on the national, county and regional landscape character areas from the extent of renewable and energy infrastructure proposed across the county. The mass and scale of these projects combined has the potential to lead to adverse effects on landscape character over an extensive area across these published character areas. The landscape character of the local, and potentially regional area, may be completely altered over the operational period through an extensive area of land use change, and introduction of energy infrastructure in an area that is predominantly agricultural. This would also be an issue when experienced sequentially for visual receptors travelling through the landscape and experiencing these schemes across potentially several kilometres, albeit with gaps between the schemes. This is a clear and marked change to landscape character.
- 8.5 Tree and vegetation removal associated with the Development, including wider highways improvements and access for construction, must be clarified through the examination process, and subsequently any works (such as lopping or pruning), or removal of trees and hedgerows must be agreed prior to any works commencing. Prior to any construction activities, all tree and hedgerow protection methods associated with that phase of construction should also be clarified and subsequently agreed with the appropriate authority (in this case the local planning authority). This would be to BS:5837 Trees in Relation to Construction and any subsequent arboriculture method statements, again this should be approved by the appropriate authority. In particular this should ensure existing trees, and associated root protection areas, are suitably protected throughout the entire construction period. This would also likely include areas within the order limits, but away from

construction activity, such as storage areas for materials which may suffer from tracking by plant that would damage tree root protection zones.

- 8.6 While the submission includes landscape proposals (as shown on *Figure 2.7: Illustrative Masterplan* and the *Mitigation Plan* within Appendix A of the OLEMP, secured via Work Order 8 on the Works Plans and DCO), these are of a high level and it would be expected that if the project proceeds much more detailed plans would to be submitted and subsequently agreed with the appropriate authority prior to the commencement of any works and secured through Requirements of the DCO. This would include clear detail of the areas of landscape mitigation, location and types of planting (species), as well as number, density and specification. The mitigation illustrated on the *Outline Landscape and Ecology Management Plan* has been utilised to assess the landscape and visual effects of the scheme, therefore we would expect any detailed landscape proposals to consist of the area and extent shown on these plans as a minimum.