

**Tillbridge Solar Project  
EN010142**

**Volume 7  
Equality Impact Assessment**  
Document Reference: EN010142/APP/7.15

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

**April 2024  
Revision Number: 00**

## Table of Contents

Executive Summary .....	1
1. Introduction .....	5
1.1 Purpose .....	5
1.2 Context .....	6
1.3 Report Structure .....	6
2. Methodology .....	7
2.1 Introduction .....	7
2.2 Desk-based review .....	7
2.3 Assessment of impacts .....	7
2.4 Conclusions .....	8
3. Summary of the Scheme .....	8
3.1 Current site and the surrounding area .....	8
3.2 Construction.....	15
3.3 Operational activities .....	17
3.4 Decommissioning and land reinstatement .....	17
4. Policy and legislative context .....	18
4.1 Legislation.....	18
4.2 National Policy .....	20
4.3 Local Policy.....	21
5. Equalities baseline .....	23
5.1 Introduction .....	23
<b>5.2 Protected characteristics .....</b>	<b>24</b>
5.3 Socio-economic profile .....	31
6. Consultation and engagement.....	37
6.1 Overview.....	37
6.2 Non-statutory consultation .....	37
6.3 Statutory consultation .....	41
6.4 Targeted consultation.....	45
6.5 Engagement with seldom heard and underrepresented groups .....	47
7. Assessment of Impacts.....	48
7.1 Introduction .....	48
7.2 Consultation.....	49
7.3 Construction.....	50
7.4 Operation.....	53
7.5 Decommissioning .....	55
7.6 Summary of impacts .....	57
8. Conclusions .....	65
9. References .....	67

## Figures

Figure 3-1: Order limits.....	10
Figure 3-2: Indicative Principal Site Layout Plan .....	12
Figure 3-3: Public Rights of Way (PRoWs).....	14
Figure 5-1: IMD Map of Deprivation for the Project LSOAs.....	32
Figure 6-1: Mailing Zone for Near Neighbours .....	40
Figure 6-2: Primary Consultation Zone.....	42

## Tables

Table 5-1: Population size and change (%) by geographical area, 2001, 2011, 2021 (Ref 12) .....	23
Table 5-2: Population age (%) by geographical area, 2011, 2021 (Ref 13) .....	24
Table 5-3: Disability (%) by geographical area, 2021 (Ref 14) .....	25
Table 5-4 Gender identity (%) by geographical area, 2021 (Ref 15) .....	25
Table 5-5 Legal partnernship status (%) by geography, 2021 (Ref 16).....	26
Table 5-6 Live births by geography, 2021 (Ref 17).....	27
Table 5-7 Ethnic group (%) by geography, 2021 (Ref 18).....	27
Table 5-8 Religion or belief (%) by geography, 2021 (Ref 19) .....	28
Table 5-9 Sex (%) by geography, 2021 (Ref 20).....	30
Table 5-10 Sexual orientation (%) by geography, 2021 (Ref 21) .....	30
Table 5-11 Economic Activity Status (%) by geography, 2021 (Ref 23) .....	33
Table 5-12 General Health (%) by geography, 2021 (Ref 24).....	34
Table 5-13 Tenure (%) by geography, 2021 (Ref 25).....	35
Table 6-1: Collaborative workshops.....	38
Table 7-1: Summary of potential equality impacts of the Scheme .....	58

## Executive Summary

- ES-1. This Equality Impact Assessment (EqIA) has been conducted by AECOM Ltd (“AECOM”) on behalf of Tillbridge Solar Ltd, a joint venture between Tribus Clean Energy Ltd and Recurrent Energy, a subsidiary of Canadian Solar (hereafter referred to as the “Applicant”) as part of an application for a Development Consent Order (DCO) for the Tillbridge Solar Project (the Scheme). The EqIA provides relevant information to assist the Secretary of State for Energy Security and Net Zero (Secretary of State) in adhering to the Public Sector Equality Duty (PSED) under the Equality Act 2010 when making their decision whether to grant a DCO for the Scheme.
- ES-2. This EqIA assesses potential direct and indirect impacts of the Scheme on groups with protected characteristics as defined by the Equality Act 2010. The report's structure includes a methodology, Scheme summary, policy and legislation review, equalities baseline, overview of consultation and engagement activities, assessment of potential impacts and planned mitigations, and conclusions.
- ES-3. This EqIA reflects the Applicant's commitment to consider the interests of protected characteristic groups and aims to inform decision-making, demonstrating due regard to the Equality Act 2010 and the PSED throughout the Scheme's lifecycle. The assessment identifies the Scheme's potential effects on groups with protected characteristics, which are; age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation. The report presents findings on potential equality effects and outlines planned mitigations to address adverse effects and actions to enhance positive effects.
- ES-4. The Scheme covers an overall area of approximately 1,670 hectares (ha) of mainly agricultural land within the administrative areas of Lincolnshire and Nottinghamshire.
- ES-5. Key components of the Scheme include solar photovoltaic panels, field stations, inverters, link boxes, underground cabling, grid connection substations, and various infrastructure elements.
- ES-6. Construction, scheduled to begin no earlier than 2025, is anticipated to last between 24-36 months, with a peak workforce of 1,395 staff per day. Operational activities will primarily involve maintenance and monitoring. Decommissioning is planned after 60 years of operation, and expected to take 12 to 24 months, with recycling and/or safe disposal of components.
- ES-7. An equalities baseline and socio-economic profile of the Scheme's location are provided in this assessment, which considers data from various sources, including the 2019 English Indices of Deprivation, Census 2021, and other datasets from the Office for National Statistics. The Scheme's geographical areas of interest include Bassetlaw and West Lindsey. The socio-economic profile presents data on several factors related to deprivation such as income, employment, education, health and housing. These factors assist in

assessing potential impacts on groups with protected characteristics and those who may face inequality.

ES-8. The Bassetlaw 015C Lower Super Output Area (LSOA), affected by the Scheme, is in the top 20% of most deprived neighbourhoods in England. The equalities baseline revealed that there is a larger proportion of the population in the Study Area who are over 65 compared to regional and national averages. There is also a higher proportion of the population who are disabled.

ES-9. An overview of consultation and engagement activities related to the Scheme is provided. The four phases of engagement reviewed are as follows:

- a. Early Engagement - The Applicant held discussions with key stakeholders, including the Planning Inspectorate and local councils, to introduce the Scheme and establish contact. This involved virtual meetings and presentation of the proposed Order limits and potential environmental constraints. This stage included efforts to identify seldom heard groups. Analysis of demographic data indicated an older affluent local population, influencing the decision to distribute printed brochures alongside online materials. A press release was also issued to promote the Scheme to trade and local media.
- b. Non-Statutory Consultation - This phase aimed to gather input from the local community, landowners, businesses, and interest groups, with a mixture of both in-person and online events being conducted. Key concerns raised included the impact on agricultural land, visual aesthetics, and increased traffic. Positive feedback highlighted the need for renewable energy, support for solar power, opportunities for increasing employment, and the potential for reverting land back to arable use after decommissioning. Communication channels included letters, emails, webpages, social media, and press releases. The consultation zone extended beyond the immediate vicinity of the Scheme to include villages and hamlets. Local groups representing seldom heard voices and under-represented groups were invited to inform the consultation to ensure that it met their needs.
- c. Statutory Consultation - This phase of consultation aimed to provide Scheme information to the local community and stakeholders, allowing them to comment on the proposals. The consultation period ran for six weeks and included publication in local media, emails to non-statutory consultation participants, and physical copies of consultation materials in designated locations. Following feedback from local groups, this included the provision of alternative formats of materials, such as dementia friendly materials. Efforts were made to engage local authorities, MPs, councils, parish councils, environmental bodies, local businesses, and the community.
- d. Targeted Consultation – Following a review of feedback from statutory consultation and further technical work, a number of minor changes to the draft Order limits were proposed and a phase of targeted consultation was undertaken. The targeted consultation focussed on consulting the landowners and statutory stakeholders affected by the

changes to the Order limits, as well as those who had previously responded to the statutory consultation.

- ES-10. For the purpose of this EqIA, the assessment of potential equality impacts is split into four phases: consultation, construction, operation, and decommissioning.
- ES-11. In respect of consultation, the assessment recognises the positive effect of an inclusive and accessible engagement process, involving authorities, local communities, and carrying out targeted consultations. This approach includes those who may be excluded by traditional consultation approaches.
- ES-12. The construction of the Scheme may negatively impact the local road network, with increased traffic movements having the potential to disproportionately affect some protected characteristic groups, including older and disabled people. Noise, vibration, and air quality issues could also affect these groups. Proposed measures have been developed which will help to mitigate these effects as outlined under ES17.
- ES-13. Potential employment and employability opportunities demonstrate a positive impact, with potential positive effect on local communities, especially young people and disabled people. Commitment to a sustainable sourcing and equality policy, as well as requiring contractors to provide metrics on workforce diversity and gender split of the workforce may support positive effects on those with protected characteristics who are under-represented in the construction sector and the labour market more broadly.
- ES-14. During operation of the Scheme, potential impacts include negative effects of increased noise on protected characteristic groups such as disabled people. Proposed measures have been developed which will help to mitigate these effects as outlined under ES17.
- ES-15. The Scheme's positive contribution to tackling climate change through renewable energy generation is also considered. The potential effects of this relate to mitigating protected characteristic groups' existing vulnerabilities to climate change event, such as older, disabled, or other people with mobility issues.
- ES-16. Given the highly comparable nature of works expected to take place during decommissioning as during construction, the potential equality effects are expected to be similar at this stage. However, given the decommissioning impacts will occur in approximately 60 years' time, exact details (i.e., employment generation figures) are not provided.
- ES-17. In conclusion, although there is no direct discrimination or victimisation identified as being associated with the Scheme, there may be negative effects associated with, for example, increased noise levels during construction, operation, and decommissioning, which could disproportionately affect sensitive groups such as children, older people and disabled residents. The implementation of Construction, Operation, and Decommissioning Environmental Management Plans (CEMP, OEMP, and DEMP respectively) containing mitigation measures provide a clear and consistent approach to controlling Scheme activities, and therefore will

support reduction of potential negative equality effects. A **Framework CEMP [EN010142/APP/7.8]**, **Framework OEMP [EN010142/APP/7.9]** and **Framework DEMP [EN010142/APP/7.10]** have been submitted alongside the DCO application. Continued and sensitive engagement with affected individuals with protected characteristics will continue through the examination, detailed design, pre-construction, construction, operation and decommissioning stages.

# 1. Introduction

## 1.1 Purpose

- 1.1.1 This Equality Impact Assessment (“EqIA”) has been prepared by AECOM Ltd (“AECOM”) on behalf of Tillbridge Solar Ltd, a joint venture between Tribus Clean Energy Ltd and Recurrent Energy, a subsidiary of Canadian Solar (the “Applicant”). It supports an application for a Development Consent Order (“DCO”) for the construction, operation (including maintenance) and decommissioning for a large-scale photovoltaic (PV) and Battery Energy Storage System (BESS) development, connecting to the National Electricity Transmission System (NETS) at National Grid’s Cottam 400kV Substation (hereafter “the Scheme”).
- 1.1.2 Whilst the Applicant is not a public sector body specified in the Equality Act 2010 (the “Act”) (Ref 1) as being subject to the Public Sector Equality Duty (“PSED”), s149(2) of the Act provides that a *“person who is not a public authority but who exercises public functions must, in the exercise of those functions, have due regard”* to the PSED.
- 1.1.3 The Scheme constitutes a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008 (“PA 2008”) and therefore requires an application for a DCO (the “Application”) to be submitted to the Planning Inspectorate, for determination by the Secretary of State for Energy Security and Net Zero (Secretary of State). The Secretary of State is a public authority to which the PSED applies, as prescribed in Schedule 19 of the Act.
- 1.1.4 This EqIA is being submitted as part of a range of supplementary documents that form the Application.
- 1.1.5 This EqIA demonstrates the Applicant’s commitment to consider the interests of people who share protected characteristics, as defined by the Act (Ref 2) and set out in **Section 2.3** of this report. This EqIA will assist the Secretary of State’s decision-making process by demonstrating that due regard has been paid to the needs of protected characteristic groups in line with the Act and the PSED. Demonstration of due regard is provided through the assessment of potential impacts of the Scheme on protected characteristic groups, which is informed by a policy and legislation review, an overview of the Scheme, assessment of the equalities baseline as well as consultation activities.
- 1.1.6 An EqIA is a systematic assessment of the effects of plans, policies, or proposals on groups with protected characteristics as defined by the Act and outlined under **Section 2.3** of this report. This EqIA provides a consideration of potential direct and indirect equality impacts (both adverse and beneficial) associated with the consultation, construction, operational, and decommissioning phases of the Scheme. The approach draws on evidence from the **Environmental Statement (ES) [EN010142/APP/6.1]**, secondary data sources, as well as feedback from consultation and engagement processes and information from construction planning undertaken for the Scheme.



## 1.2 Context

- 1.2.1 The Tillbridge Solar Project (the Scheme) will comprise the construction, operation (including maintenance), and decommissioning of ground-mounted solar photovoltaic (PV) arrays. The Scheme will also include associated development to support the solar PV arrays.
- 1.2.2 The Scheme is made up of the Principal Site, the Cable Route Corridor and works to the existing National Grid Cottam Substation. The Principal Site comprises the solar PV arrays, electrical substations, grid balancing infrastructure, cabling and areas for landscaping and ecological enhancement.
- 1.2.3 The associated development element of the Scheme includes but is not limited to access provision; a Battery Energy Storage System (BESS), to support the operation of the ground mounted solar PV arrays; the development of on-site substations; underground cabling between the different areas of solar PV arrays; and areas of landscaping and biodiversity enhancement.
- 1.2.4 The Scheme also includes a 400kV underground Cable Route Corridor of approximately 18.5km in length connecting the Principal Site to the National Electricity Transmission System (NETS) at the existing National Grid Cottam Substation. The Scheme will export and import electricity to the NETS.
- 1.2.5 A full description of the Scheme is included in **Chapter 3: Scheme Description** of the Environmental Statement (ES) [EN010142/APP/6.1]. An overview of the Scheme and its environmental impacts is provided in the Environmental Statement **Non-Technical Summary** [EN010142/APP/6.4].

## 1.3 Report Structure

- 1.3.1 Following on from this introductory chapter, the remainder of this report is structured as follows:
  - a. **Chapter 2: Methodology** – setting out the approach to collecting evidence and assessment of impacts;
  - b. **Chapter 3: Summary of the Scheme** – an overview of the Scheme;
  - c. **Chapter 4: Policy and legislation review** – providing context through review of relevant national and regional policy and legislation associated with equalities, planning, and other relevant topics;
  - d. **Chapter 5: Equalities baseline** – uses secondary data sources, such as Census 2021 data, to form an understanding of residents living within the area;
  - e. **Chapter 6: Consultation and engagement activities** – provides an overview of consultation and engagement activities undertaken;
  - f. **Chapter 7: Assessment of potential equality effects** – provides an assessment of impacts and equality effects of the Scheme using the evidence gathered; and
  - g. **Chapter 8: Conclusions and next steps** – summary of equality effects and the Applicant's due regard to the PSED. This section also contains

continued actions for enhancing positive equality effects and minimising potential negative effects based on available evidence to date.

## **2. Methodology**

### **2.1 Introduction**

2.1.1 This section sets out the approach to assessing the equality impacts of the Scheme. The assessment considers the potential positive and negative impacts of the Scheme throughout the consultation, construction, operational, and decommissioning phases.

2.1.2 The approach for undertaking this EqIA and compiling this report follows a three-stage process as follows:

- a. Desk-based review - including review of relevant national and regional policies and legislation, documents associated with the Scheme and secondary datasets relating to groups with protected characteristics;
- b. Assessment of potential impacts - informed by a consideration of the policy context, consultation responses, equalities baseline data, ES and other Scheme documentation; and
- c. Providing conclusions.

2.1.3 The approach is based on AECOM's professional judgement, an understanding of the Equality Act 2010, particularly section 149 regarding the PSED, and supporting technical guidance produced by the Equality and Human Rights Commission (EHRC) (Ref 2).

### **2.2 Desk-based review**

2.2.1 In addition to a review of relevant national, regional and local policies and legislation, the desk-based review included the following:

- a. Review of all relevant documentation regarding the DCO application including design information, relevant assessment work and mitigation and management plans;
- b. Review of national and local datasets, including Census 2021 data, to develop a baseline of groups with protected characteristics within and surrounding the Scheme; and
- c. Review of the consultation and engagement activities to date in relation to the Scheme undertaken by the Applicant to identify any issues of relevance to this EqIA.

### **2.3 Assessment of impacts**

2.3.1 The assessment of equality impacts takes into account the information gathered via the above activities. A professional judgement has been made as to how the Scheme may affect people with protected characteristics as defined in section four of the Act (Ref 1). These protected characteristics are:

- a. **Age:** this refers to persons defined by either a particular age or a range of ages. This can include children (aged under 16), young people (aged 16-25), older people or pensioners (i.e. those aged 65+) and the elderly/very old (i.e. those aged 85+);
  - b. **Disability:** a disabled person is defined as someone who has a physical or mental impairment that has a substantial and long-term adverse effect on their ability to undertake normal day-to-day activities. It can also include people who have progressive conditions such as human immunodeficiency virus (HIV), cancer, or multiple sclerosis (MS), even where someone is able to undertake day to day activities;
  - c. **Gender reassignment:** this refers to people who are proposing to undergo, are undergoing, or have undergone a process for the purpose of reassigning their gender identity;
  - d. **Pregnancy and maternity:** pregnancy is the condition of being pregnant or expecting a baby. Maternity refers to the period after the birth. In the non-work context, protection against maternity discrimination is for 26 weeks after giving birth;
  - e. **Race:** race is defined as encompassing colour, nationality (including citizenship) and ethnic or national origins;
  - f. **Religion or belief:** religion means any religion a person follows. Belief means any religious or philosophical belief, and includes those people who have no formal religion or belief;
  - g. **Sex:** this refers to a man or to a woman or a group of people of the same sex, while gender refers to the wider social roles and relationships that structure men's and women's, boys' and girls' lives; and
  - h. **Sexual orientation:** a person's sexual orientation relates to their emotional, physical and/or sexual attraction and the expression of that attraction.
- 2.3.2 While marriage and civil partnership is also a protected characteristic under the Equality Act, it is not covered by the PSED in relation to its aims of advancing equality of opportunity and fostering good relations. This means that it is unlawful to discriminate, harass or victimise someone due to their marriage or civil partnership status, however public authorities do not have to assess impact on this characteristic in impact assessment work of this kind.

## 2.4 Conclusions

- 2.4.1 The concluding section of this report sets out conclusions on the equality effects, including against the three aims of the PSED.

## 3. Summary of the Scheme

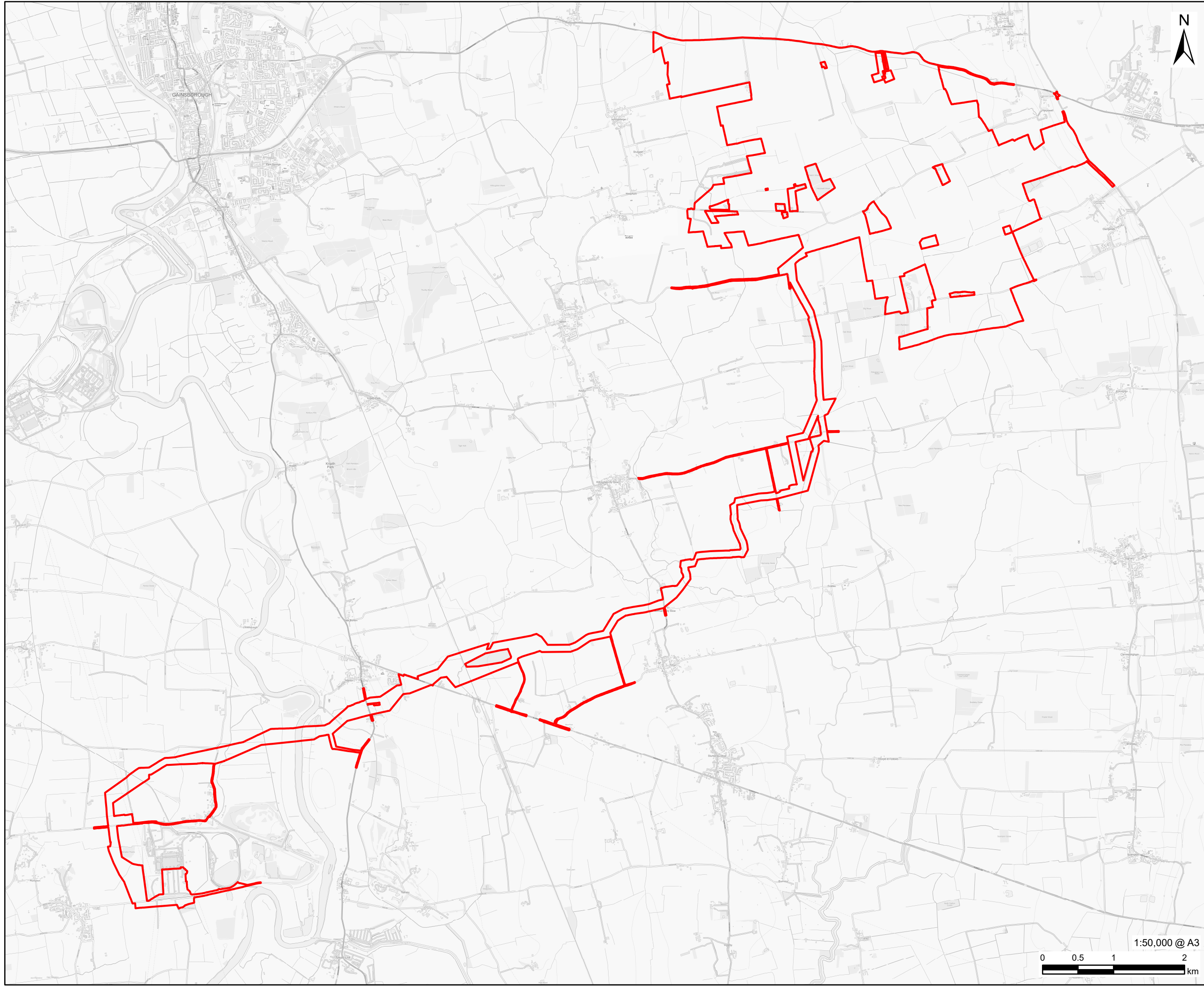
### 3.1 Current site and the surrounding area

- 3.1.1 The Order limits set out the boundaries of the Scheme, which is located approximately five kilometres (km) to the east of Gainsborough and approximately thirteen km to the North of Lincoln.

3.1.2 The Order limits comprise two sections:

- a. 'the Principal Site', where solar PV panels, electrical sub-stations and BESS will be installed; and
- b. 'the Cable Route Corridor' which will comprise the underground electrical cabling to connect the Principal Site to National Grid Cottam Substation.

3.1.3 **Figure 3-1** below shows the Order limits.



**PROJECT**  
Tillbridge Solar Project

**CLIENT**  
Tillbridge Solar Ltd

**CONSULTANT**  
Aldgate Tower  
2, Leman Street  
London, E1 8FA  
United Kingdom  
T +44-0207-645-2000

**LEGEND**  
Order limits

**NOTES**  
Contains Ordnance Survey Data © Crown  
Copyright and database right 2023.  
© Crown copyright and database rights 2023.  
Ordnance Survey 0100031673.

**ISSUE PURPOSE**  
EQIA  
**PROJECT NUMBER**  
60677969  
**FIGURE TITLE**  
The Order Limits

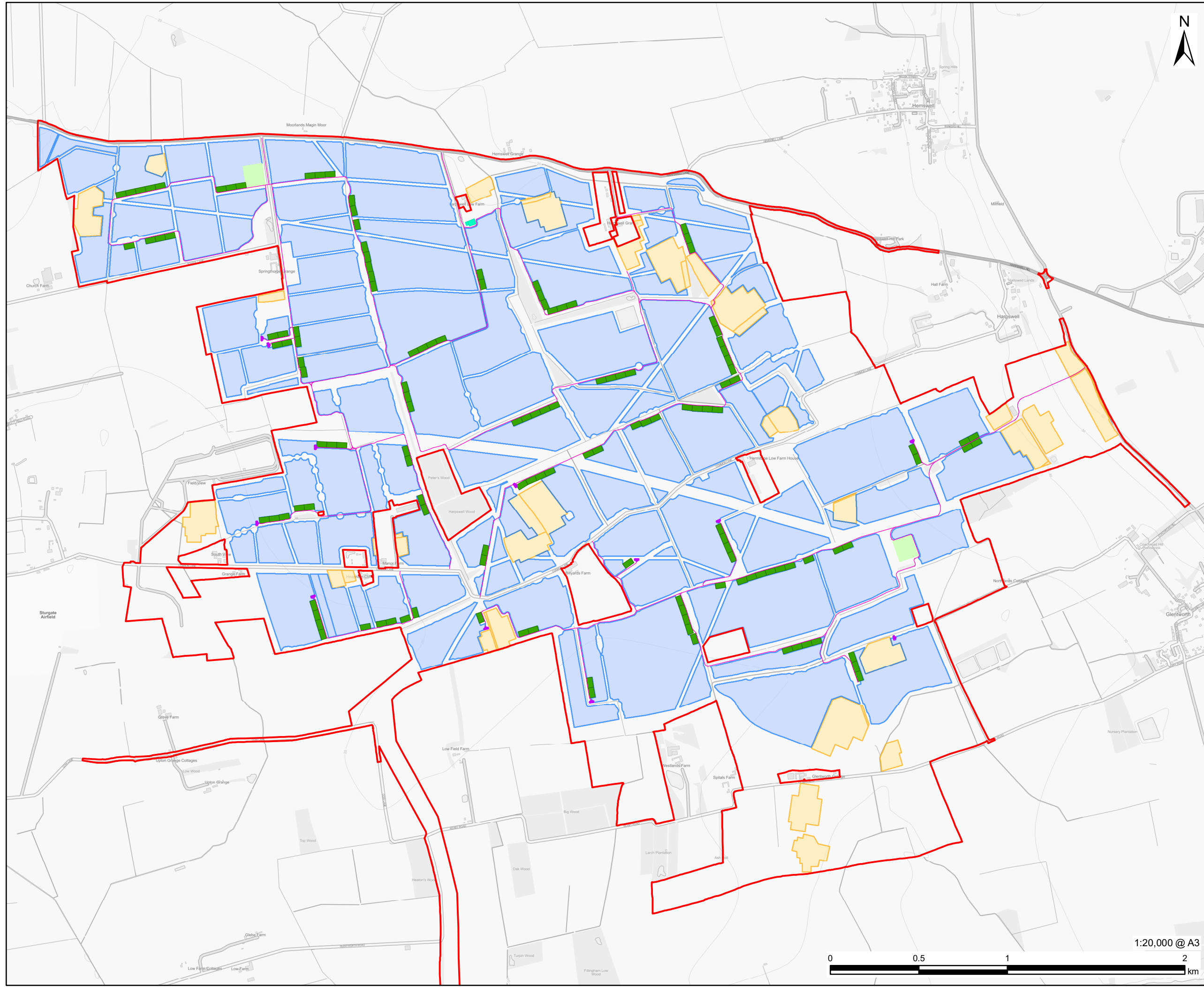
**FIGURE NUMBER**  
Figure 3-1






This drawing has been prepared by the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

## The Principal Site

- 3.1.4 The Principal Site, presented in **Figure 3-2** below, covers an area of approximately 1,370 hectares and is located to the south of Harpswell Lane (A631), to the west of Middle Street (B1398), to the north of Kexby Road and to the east of Springthorpe. Harpswell Lane (A631) and Middle Street (B1398) form the extent of the northern and eastern boundaries of the Principal Site. A thin strip of land on the western side of Middle Street is included within the Order limits to allow for landscape screening. The Principal Site extends to the south of Kexby Road with the inclusion of field parcels that are located to the south of the road.
- 3.1.5 The area within and surrounding Order limits is primarily rural and agricultural land. The Principal Site comprises numerous fields used for arable farming. The fields are large with limited hedgerows and trees. There are also some small, scattered areas of woodland, along with some residential buildings and agricultural buildings dispersed across the area.
- 3.1.6 Immediately surrounding the Principal Site there are a series of villages and hamlets including;
- a. Harpswell which is located to the north of the Principal Site, had a population of 65 according to the 2011 census and comprises residential and agricultural properties, as well as St Chad's Church;
  - b. Glentworth which is located to the south of the Principal Site, had a population of 323 according to the 2011 census and comprises residential properties, as well as St Michael's Church and Glentworth Village Hall;
  - c. Fillingham which is located to the south of the Principal Site, had a population of 242 according to the 2011 census and comprises residential properties, as well as St Andrew's Church and Fillingham Village Hall;
  - d. Ingham which is located to the south of the Principal Site, had a population of 374 according to the 2011 census and comprises residential and commercial properties, as well as All Saints Church and the Ingham Practice medical facility;
  - e. Springthorpe which is located to the west of the Principal Site, has a population of 138 according to the 2011 census and comprises residential properties and St George and St Lawrence Church; and
  - f. Heapham which is located to the west of the Principal Site, has a population of 141 according to the 2011 census, comprises residential properties and borders Sturgate Airfield.
- 3.1.7 The local transport network includes several strategic connections including the A631 located directly north of the Principal Site. To the east of the Principal Site, the A631 connects with the A15 providing further access to the highway network with the M180 located approximately 16km to the north.
- 3.1.8 There is one Public Right of Way (PRoW) within the Principal Site, located on its southern periphery. It is a bridleway extending south from Kexby Road near Glentworth Grange, towards Willingham Road. In addition, there are a number of recreational routes and PRoWs within 500m of the Principal Site.



- LEGEND**
-  Order limits
  -  Proposed Indicative Access Tracks
  -  Proposed Indicative Access Roads
  -  Proposed Indicative Solar Panel Boundary
  -  Proposed Indicative Archaeological Exclusion Area
  -  Proposed Indicative Control Building and Storage Area
  -  Proposed Indicative Solar Stations and Battery Energy Storage Systems
  -  Proposed Indicative Substation

**NOTES**

Contains Ordnance Survey Data © Crown Copyright and database right 2023.  
© Crown copyright and database rights 2023.  
Ordnance Survey 0100031673.

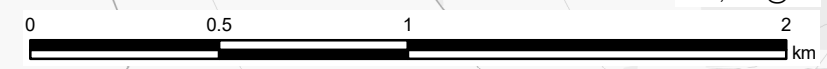
**ISSUE PURPOSE**  
EQIA

**PROJECT NUMBER**  
60677969

**FIGURE TITLE**  
Indicative Site Layout Plan

**FIGURE NUMBER**  
Figure 3-2

1:20,000 @ A3

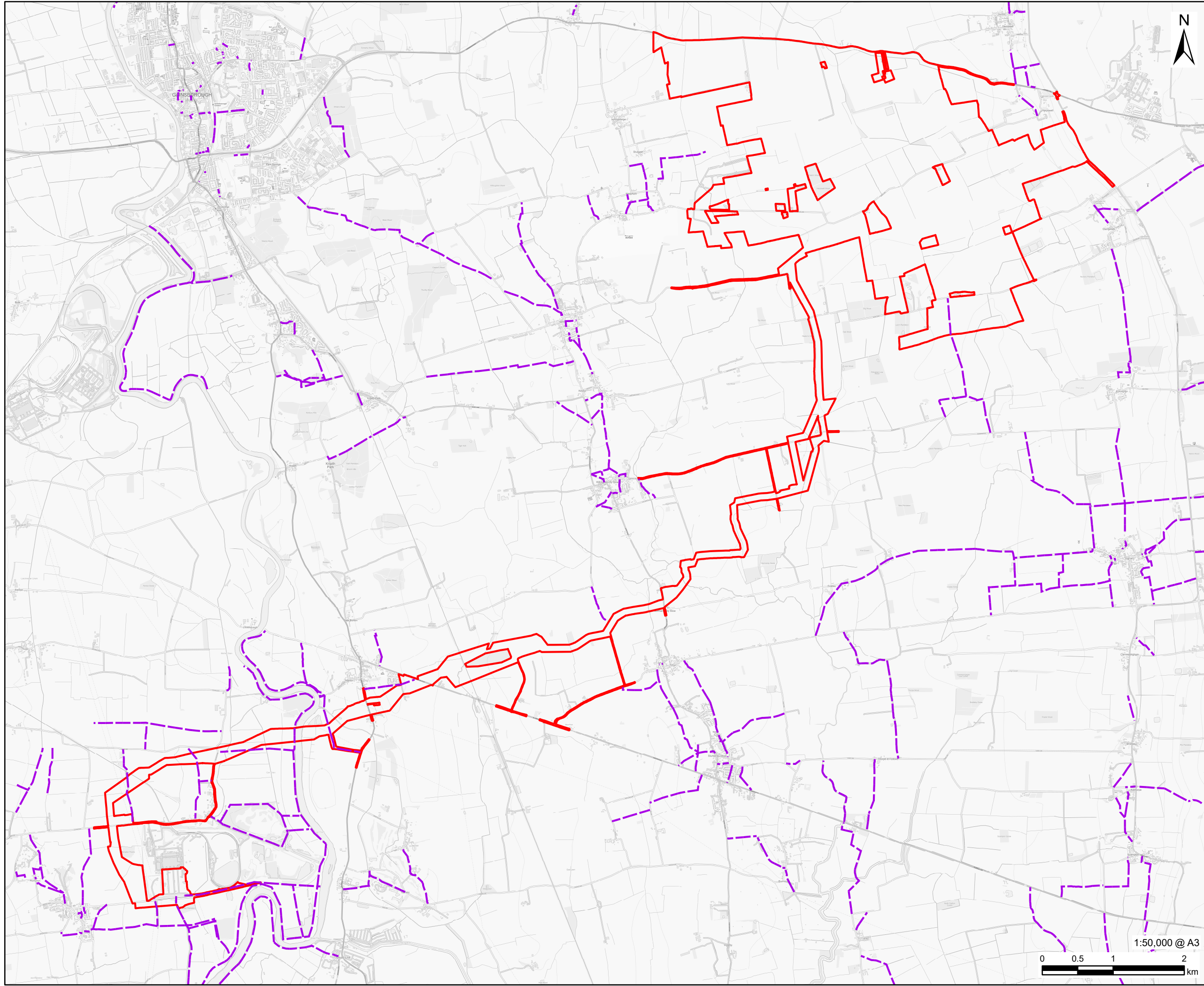


This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

## The Cable Route Corridor

- 3.1.9 The Cable Route Corridor, heading south from the Principal Site, crosses Cow Lane, Kexby Road and Fillingham Lane before turning to the west crossing South Lane, Stone Pit Lane and Stow Road (B1241) (located to the south of Willingham by Stow). Then, it continues in a westerly direction before crossing the East Midlands Railway line that provides services between Doncaster and Lincoln and runs in a broad north-south direction to the west of Willingham by Stow and to the east of Gate Burton. The route then continues westwards crossing the A1500 (Stow Park Road), followed by the A156 (Gainsborough Road) before crossing the River Trent to connect with the National Grid Cottam Substation.
- 3.1.10 There are some residential properties within the Cable Route Corridor including those;
- a. Close to Cottam Village;
  - b. Close to Marton; and
  - c. Some barn conversions along Stow Park Road and at Normanby by Stow.
- 3.1.11 As presented in **Figure 3-3** below, there are two PRowS cross the Cable Route Corridor within Lincolnshire (east of the River Trent) and there are several PRowS within Nottinghamshire that would be crossed by the Cable Route Corridor.





**PROJECT**  
Tillbridge Solar Project

**CLIENT**  
Tillbridge Solar Ltd

**CONSULTANT**  
Aldgate Tower  
2, Leman Street  
London, E1 8FA  
United Kingdom  
T +44-0207-645-2000

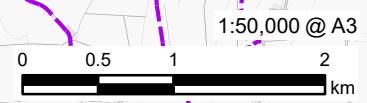
**LEGEND**  
 Order limits  
 Public Rights Of Way (PROW)

**NOTES**  
Contains Ordnance Survey Data © Crown Copyright and database right 2023.  
© Crown copyright and database rights 2023.  
Ordnance Survey 0100031673.

**ISSUE PURPOSE**  
EQIA  
**PROJECT NUMBER**  
60677969

**FIGURE TITLE**  
Public Rights of Way (PROW)

**FIGURE NUMBER**  
Figure 3-3



This drawing has been prepared by the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

## Other solar developments

- 3.1.12 A number of other solar schemes classified as NSIPs are currently being proposed in the surrounding area. These are Cottam Solar Project, Gate Burton Energy Park and West Burton Solar Project. The other solar schemes and their interactions with the Scheme are described in **Chapter 18: Cumulative Effects and Interactions** of the ES [EN010142/APP/6.1].
- 3.1.13 As detailed in the Joint Report on **Interrelationships between Nationally Significant Infrastructure Projects** submitted alongside the DCO application [EN010142/APP/7.6], given the proximity of the Scheme to these surrounding NSIPs, the Applicant identified opportunities for collaborative working with other developers in relation to connection to National Grid's Cottam substation.
- 3.1.14 Through this collaboration, the developers have built a shared understanding of the extent of the footprints of the respective schemes. This has included ensuring that all cable routes can be brought forward along the same route to minimise impacts, such as disruption during the construction phase.
- 3.1.15 The Applicant continues to work with the other developers and as outlined in **Chapter 4: Alternatives and Design** of this ES [EN010142/APP/6.1] and the **Consultation Report** [EN010142/APP/5.1], this work has helped to shape the final plans for the Cable Route Corridor submitted as part of the Application.

## 3.2 Construction

- 3.2.1 It is currently anticipated that, subject to necessary consents being granted, construction works will commence in late 2025. The construction phase is anticipated to be a minimum of 24 months and a maximum of 36 months. A construction period of 24-months is considered to be the likely worst case from an environmental assessment perspective for the majority of the environmental topics because it compresses the potential impacts into a shorter duration and represents the greatest impact on sensitive receptors.
- 3.2.2 A **Framework CEMP** [EN010142/APP/7.8] has been submitted alongside the DCO application. This describes the framework of mitigation measures to be followed, to be carried forward to a detailed CEMP carried out by the contractor prior to construction commencing.
- 3.2.3 At the peak of construction, estimated to be in 2026 (refer to **Chapter 3: Scheme Description** of the ES [EN010142/APP/6.1]), the total peak construction staff per day across the Scheme is estimated to be 1,395, with an average of approximately 800 gross direct FTE jobs on-site over the 24-month construction period.
- 3.2.4 **Chapter 14: Socio-economics and Land Use** of the ES [EN010142/APP/6.1] estimates that 15% of the construction staff will be sourced from within a 60-minute drive of the Scheme, meaning that a large number of construction staff will be travelling into the area to work.
- 3.2.5 It is noted that a larger proportion of the jobs taken up by people living outside the surrounding area will likely be in more specialised professions

owing to the scarcity of such resources within localised areas compared with other professions.

- 3.2.6 On average, it is estimated that the Principal Site will accommodate an average 800 staff on-site per day over the 24-month construction period, although in practice the number will vary across the period.
- 3.2.7 Planned construction working hours are set out in **Chapter 3: Scheme Description** of the ES [EN010142/APP/6.1] and summarised as follows. Onsite working hours will run from 07.00 until 19.00, Monday to Friday and 07.00 to 13.00 on Saturday. Construction staff will travel to the site pre-07:00 and depart the site post-19:00 (for weekdays).
- 3.2.8 Where on-site works are to be conducted outside the core working hours, they will comply with the restrictions stated in the **Framework CEMP [EN010142/APP/7.8]** submitted alongside the DCO application, and any other restrictions agreed with the relevant planning authorities. Measures to control the routing and timing of staff vehicles are set out in the **Framework Construction Traffic Management Plan (CTMP) [EN010142/APP/7.11]** submitted alongside the DCO application.
- 3.2.9 The Scheme will include the provision of a total of 500 car parking spaces on-site for construction staff, based on a peak number of 1,395 construction staff, for works related to the Principal Site and the Cable Route Corridor. Four separate car parks providing the capped total of 500 car parking spaces for construction staff will be provided and accessed via the three existing accesses on the A631 and via the B1398 (Middle Street).
- 3.2.10 Car sharing will be encouraged to reduce the number of cars traveling to and from the site. In addition, a mini-bus/coach service will be provided to pick-up and drop-off construction staff to and from the site.
- 3.2.11 Twelve cycle parking spaces will be provided for construction staff to travel by bicycle where this is possible.
- 3.2.12 The peak and average daily number of Heavy Goods Vehicles (HGVs) and Light Goods Vehicles (LGVs) required for the Principal Site are identified below. The peak forecast numbers account for daily variation and peak daily movements:
- Peak – 120 HGV deliveries (240 movements per day);
  - Average – 65-70 HGV deliveries (130-140 movements per day);
  - Peak – 60 LGV deliveries (120 movements per day);
  - Average – 30-35 LGV deliveries (60-70 movements per day);
- 3.2.13 The peak and average daily number of HGVs required for the Cable Route Corridor are identified below. The peak forecast numbers account for daily variation and peak daily movements:
- Peak – 272 HGV deliveries (544 movements per day);
  - Average – 186 HGV deliveries (372 movements per day);
- 3.2.14 The HGVs are expected to use existing accesses via the A631 Harpswell Lane and B1398 Middle Street, with three Principal Site accesses located on

the A631 Harpswell Lane and one access on the B1398 Middle Street. The HGV routes are expected to use primarily the A631, B1398 and A15. The **Framework CTMP [EN010142/APP/7.11]** submitted alongside the DCO application ensures the proper management of construction related vehicles across the Scheme.

### 3.3 Operational activities

- 3.3.1 It is anticipated that the Scheme will commence commercial operation from 2028.
- 3.3.2 During the operational phase, activity within the Scheme will be minimal and restricted primarily to vegetation management, equipment maintenance and servicing, replacement of any components that fail, solar PV panel cleaning and monitoring. In addition, maintenance and servicing would include the inspection and, if required, removal, reconstruction, refurbishment or replacement of faulty or broken equipment.
- 3.3.3 Operational access will be primarily taken from the A631 Harpswell Lane Principal Site accesses via the existing T-Junctions (Principal Site Access two and three) but will also be achievable via Principal Site Access 1 on the A631 Harpswell Lane and Principal Site Access 4 on B1398 Middle Street when access to the on-site substations is required. The existing Cottam Power Station T-junction with Cottam Road will also be utilised to access the National Grid Cottam Substation if required. The majority of routine visits during the operational phase will be via vans and four-wheel drive vehicles. If larger vehicles are required, they are expected to utilise the existing site accesses from the A631.
- 3.3.4 It is anticipated that there will be 10-12 full time equivalent (FTE) long-term jobs during the operational phase.
- 3.3.5 A **Framework OEMP** has been submitted alongside the DCO application **[EN010142/APP/7.9]** to demonstrate how the mitigation measures will be implemented. It also sets out the monitoring and auditing activities designed to ensure that such mitigation measures are carried out, and that they are effective.

### 3.4 Decommissioning and land reinstatement

- 3.4.1 The operational life of the Scheme is expected to be 60 years. Therefore, decommissioning is estimated to commence no earlier than in 2088.
- 3.4.2 As stated in **Chapter 3: Scheme Description** of the ES **[EN010142/APP/6.1]**, in view of the operational life of the Scheme being approximately 60 years, this would allow the land (that has previously been intensively farmed) to recover, ultimately safeguarding the agricultural usage of this land for future generations.
- 3.4.3 When the operational phase ends, the Scheme will require decommissioning. All PV panels, mounting poles, on-site cabling, inverters, transformers and concrete foundations to those elements not remaining would be removed from the Principal Site and recycled or disposed of in accordance with good practice and market conditions at that time.

- 3.4.4 Decommissioning is expected to take between 12 to 24 months, in phases: removal of the above ground structures, followed by the removal of the below ground elements of the Scheme.
- 3.4.5 A **Framework DEMP [EN010142/APP/7.10]** has been submitted alongside the DCO application to demonstrate how environmental mitigation and management measures will be implemented.
- 3.4.6 The drainage of the land within the Scheme will be checked and grassed after decommissioning. Should any agricultural drains be altered or removed, they will be restored such that agricultural activities could continue after decommissioning of the Scheme.
- 3.4.7 Areas of habitat and biodiversity mitigation and enhancement delivered as part of the Scheme would remain up until the land is returned to the previous landowners. Following this, the landowners would choose how the land is to be used and managed.

## 4. Policy and legislative context

### 4.1 Legislation

#### **Equality Act 2010 and the Public Sector Equality Duty (PSED)**

- 4.1.1 The Equality Act 2010 (Ref 1) provides the framework to protect the rights of individuals against unlawful discrimination and to advance equal opportunities for all. Section 149 of the Equality Act sets out the PSED to which the Secretary of State, as a public body, is subject in undertaking all its functions, including decision-making in the DCO process.
- 4.1.2 Those subject to the PSED must, in the exercise of their functions, have due regard to the need to:
  - a. Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act;
  - b. Advance equality of opportunity between people who share a protected characteristic and those who do not; and
  - c. Foster good relations between people who share a protected characteristic and those who do not.
- 4.1.3 These are sometimes referred to as the three aims or arms of the PSED. Section 149(3) of the Act explains that having due regard for advancing equality involves:
  - a. Removing or minimising disadvantages suffered by people due to their protected characteristics;
  - b. Taking steps to meet the needs of people from protected groups where these are different from the needs of other people; and

- c. Encouraging people from protected characteristic groups to participate in public life or in other activities where their participation is disproportionately low.
- 4.1.4 The Act states that meeting different needs involves taking steps to take account of disabled people's disabilities (s149(4)). It describes fostering good relations as tackling prejudice and promoting understanding between people from different groups (s149(5)). It states that compliance with the duty may involve treating some people more favourably than others (s149(6)).
- 4.1.5 The PSED applies fully to the following eight protected characteristics: age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex, and sexual orientation.

## **Human Rights Act 1998**

- 4.1.6 The Human Rights Act 1998 (Ref 3) incorporated into UK law the European Convention on Human Rights (the 'Convention'). The following Articles of the Convention are relevant to the Secretary of State's decision as to include powers of compulsory acquisition:
- a. Article 1 of the First Protocol to the Convention provides that no one can be deprived of their possessions except in public interest and subject to the relevant national and international laws and principals.
  - b. Article 8 protects private and family life, home and correspondence. No public authority can interfere with these rights except in accordance with the law, and so far, as is necessary in the interest of national security, public safety or the economic wellbeing of the country.

## **Planning Act 2008**

- 4.1.7 The PA 2008 (Ref 4) establishes a legal framework for applying for, examining, and determining DCO applications for NSIPs. It sets out the requirement for obtaining development consent as well as thresholds for classifying projects as nationally significant. Under the PA 2008, the development consent may be granted only if an application is made for it, with the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (Ref 5) further setting out application requirements.
- 4.1.8 Section 104 of the PA 2008 requires the Secretary of State, when determining DCOs, to have regard to the provisions of National Policy Statements ("NPSs") where they have effect. NPSs are produced by the UK Government and comprise the Government's objectives for the development of NSIPs. The Overarching NPS for Energy (EN-1) (Ref 6), the NPS for Renewable Energy Infrastructure (EN-3) (Ref 7) and the NPS for Electricity Networks (EN-5) (Ref 38) form the relevant national policy statements with respect to the Scheme. There is currently no adopted NPS designated specifically for solar PV development, however NPS EN-3 Renewable Energy includes specific policy relating to solar generating stations. These policy documents have therefore been taken into account in this report.

- 4.1.9 The PA 2008 does not contain any specific guidance relating to protected characteristics and equalities, but it does include a duty to consult with the local community as a part of the DCO application process.

## 4.2 National Policy

- 4.2.1 There is a range of national policy relevant to the Scheme which is discussed in the relevant sections of this report. This section outlines the key provisions under the relevant NPSs and the National Planning Policy Framework (NPPF) (2023) (Ref 8) as they include relevant guidance on equality considerations of local planning and is therefore explicitly relevant for the EqIA.

### **Overarching National Policy Statement for Energy (EN-1)**

- 4.2.2 The energy NPSs were originally designated and published in 2011. In December 2020, the Department for Business, Energy, and Industrial Strategy (BEIS) (now the Department for Energy Security and Net Zero (DESNZ) produced the 'Powering our Net Zero Future' energy white paper, in which it outlined that a review of the energy NPSs would be undertaken to ensure they align with the policies of the white paper as well to ensure the UK had a planning policy framework that could support the investment required to achieve the transition to net zero. The revised NPS EN-1 (Ref 6) came into force in January 2024.
- 4.2.3 NPS EN-1 (Ref 6) sets out national policy for the delivery of major energy infrastructure. The NPS has effect on relevant decisions by the Secretary of State on applications for energy developments that are nationally significant under the PA 2008.
- 4.2.4 Section 4.4 of NPS EN-1 recognises the potential impacts on health and well-being that energy infrastructure can have, in particular the construction, production and distribution related to energy infrastructure and the potential negative impacts this may have. Direct impacts on health identified include increased traffic, air or water pollution, dust and odours, noise, and hazardous waste or substances. NPS EN-1 also recognises that new energy infrastructure may affect the composition and size of the local population, and in doing so have indirect health impacts, for example by affecting access to key public services, transport, and open spaces.

### **National Policy Statement: Renewable Energy Infrastructure (EN-3)**

- 4.2.5 National Policy Statement EN-3 (NPS EN-3) (Ref 7), taken together with NPS EN-1, provides the framework for decisions by the Secretary of State on applications they receive for nationally significant renewable energy infrastructure. Namely, in relation to Scheme, NPS EN-3 covers solar PV developments exceeding 50 MW in England – an addition to the scope of projects covered by NPS EN-3 published in 2011.
- 4.2.6 Section 2.10 of NPS EN-3 sets out the specifications relating to solar PV developments. The section identifies factors that should influence site selection and design. In relation to this assessment, these factors include proximity of a site to dwellings due to nearby receptors that may be sensitive to visual amenity, glint and glare; accessibility and the suitability of access

routes to the proposed site for both construction and operation; and PRow provision including potential diversions or closures to routes.

- 4.2.7 Section 2.10 of NPS EN-3 contains the description of potential impacts of solar PV developments. In relation to this assessment these include residential amenity, construction impacts including traffic and transport noise and vibration, and impacts on cultural sites.

### **National Planning Policy Framework (2023)**

- 4.2.8 The National Planning Policy Framework (“NPPF”) (Ref 8) was originally published in March 2012, with revisions in July 2018, February 2019, July 2021, and most recently in December 2023. The NPPF provides a framework within which locally-prepared plans for housing and other development can be produced. While the NPPF does not contain specific guidance on protected characteristics nor equalities, it does emphasise the importance of sustainable development and the need to support a healthy and just society.
- 4.2.9 Section 1 Paragraph 5 of the NPPF states that whilst it does not contain specific policies for NSIPs, it may be considered as 'relevant' as a major infrastructure decision-making framework.
- 4.2.10 In relation to promoting healthy and safe communities, Section 8 of the NPPF identifies key principles that planning policies should ensure that they consider, including:
- a. Local strategies to improve health, social and cultural wellbeing for all;
  - b. Enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure; and
  - c. Guard against the unnecessary loss of valued facilities and services, particularly where this would reduce the community’s ability to meet its day-to-day needs.
- 4.2.11 In relation to meeting the challenges of climate change, flooding and costal change, Section 14 of the NPPF outlines that the planning system should support the transition to a lower carbon future in a changing climate. In particular, it should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.

## **4.3 Local Policy**

### **Central Lincolnshire Local Plan**

- 4.3.1 Central Lincolnshire Local Plan (Ref 9) was adopted in April 2023 by Central Lincolnshire Strategic Planning Committee, which includes councils of West Lindsey, North Kesteven and City of Lincoln. It sets out a joint vision for the region’s development until 2040, focusing on growth whilst protecting environmental assets, moving Central Lincolnshire towards a carbon net-zero region through generation of renewable energy.



- 4.3.2 Section 1.5 of the Plan outlines its objectives. Objective 3 deals with social equality in communities, setting out to “*stimulate regeneration that maximises benefits for the most deprived areas and communities in Central Lincolnshire. To ensure equitable outcomes for all, particularly those most at risk of experiencing discrimination, poverty and social exclusion.*” In addition, reducing health inequalities is one of the strategic priorities of the Plan.

### **West Lindsey Equality Strategy**

- 4.3.3 In the West Lindsey Equality Strategy (Ref 10), West Lindsey District Council adopted a number of equality and diversity objectives covering the period 2020-2024. The objectives are to ensure that equality is effectively mainstreamed into policies and service delivery. The Strategy aids the council in fulfilling equality duties under Equality Act 2010 and supports the Central Lincolnshire Local Plan.

- 4.3.4 West Lindsey Council sets the following equality objectives:

- a. Review Corporate Plan and Equality objectives to ensure links are clear and objectives are evidence-based;
- b. Ensure that all staff, elected members and volunteers are aware of the responsibilities under the Equality Act and PSED;
- c. Engage communities to participate in the determination of priorities and decision making; and
- d. Ensure decision making process is transparent.

### **Lincolnshire Joint Health and Wellbeing Strategy (2022)**

- 4.3.5 Lincolnshire’s Health and Wellbeing board, which put together the joint Strategy (Ref 11) is tasked with reducing health inequalities in the region by improving the general wellbeing of its inhabitants.

- 4.3.6 The Strategy identified a number of priorities, which included focus on prevention and tackling inequalities and equitable provision of services that support and promote health and wellbeing.

### **Bassetlaw District Core Strategy and Development Management Policies Development Plan Documents (DPD) (2011)**

- 4.3.7 The Bassetlaw Core Strategy (Ref 39) is the key Local Development Framework (LDF) document and provides the overarching framework for all other documents that may be produced. It sets out a vision for change in Bassetlaw to 2028, along with place-specific policy approaches taken in order to achieve this vision.

- 4.3.8 The Core Strategy was adopted on 22 December 2011 and sets out a vision of change in Bassetlaw to 2028.

### **Draft Bassetlaw Local Plan Main Modifications (2023)**

- 4.3.9 The Draft Bassetlaw Local Plan is being produced to help guide development in Bassetlaw over the plan period from 2020 to 2038. It sets out the Council’s development strategy, planning policies and proposal, including site allocations, to guide land use and planning decisions in the District up to

2038. As part of the Local Plan examination process, the independent Local Plan Inspectors have identified Main Modifications they consider necessary to ensure the Plan is legally compliant and sound. The Main Modifications document (Ref 40) was published in August 2023.

- 4.3.10 Once adopted, the Local Plan will replace the Bassetlaw Core Strategy and Development Management Policies DPD 2011.

## 5. Equalities baseline

### 5.1 Introduction

5.1.1 A baseline profile of the population living in proximity of the Scheme is necessary to assess of the potential impacts the Scheme may have on groups with protected characteristics. The Principal Site is located in an area administered by West Lindsey District Council, while the Cable Route Corridor goes predominantly through West Lindsey District Council and as well as Bassetlaw District Council, both in the East Midlands.

5.1.2 This section outlines the equalities baseline relevant to the Scheme. This includes analysis of Census 2021 data and other datasets from the Office for National Statistics (“ONS”). Where possible, the most recently available data is presented at four geographical areas. These are, in increasing size:

- a. The ‘Study Area’ - Sturton ward in Bassetlaw District Council and Hemswell, Lea, Stow and Torksey wards in West Lindsey District Council, which combined comprise the Study Area (where available);
- b. West Lindsey and Bassetlaw District Councils combined;
- c. East Midlands region. which provides a wider regional context; and
- d. England, to provide the fuller national context.

### Population

5.1.3 In 2021, the Study Area was home to 12,429 people.

5.1.4 As detailed in **Table 5-1** below, the geography experienced a population increase of 12.3% between 2001 and 2021. The population in West Lindsey and Bassetlaw, the East Midlands, and England experienced stronger population growth over the same period, by 13.7%, 17% and 15% respectively.

**Table 5-1: Population size and change (%) by geographical area, 2001, 2011, 2021 (Ref 12)**

Year	Study Area	West Lindsey and Bassetlaw	East Midlands	England
2001	11,071	187,228	4,172,174	49,138,831
2011	11,968	202,113	4,533,222	53,012,456
2021	12,429	212,960	4,880,054	56,490,048

Year	Study Area	West Lindsey and Bassetlaw	East Midlands	England
% Change (2001-2021)	12.3	13.7	17	15

Source: ONS Census 2021

## 5.2 Protected characteristics

### Age

- 5.2.1 **Table 5-2** presents the population age breakdown in 2011 and 2021 for the Study Area and at local, regional, and national levels. The proportion of the population over the age of 65 increased across all geographies from 2011 to 2021. In the Study Area, this increased from 23.4% to 30.1% which is higher than West Lindsay and Bassetlaw (23.5%), the East Midlands (19.5%) and England (18.4%).
- 5.2.2 In contrast, the proportion of the Study Area population aged between 0 and 15 decreased from 16.5% in 2011 to 14.2% in 2021.

**Table 5-2: Population age (%) by geographical area, 2011, 2021 (Ref 13)**

Age Range (years)	Study Area	West Lindsey and Bassetlaw	East Midlands	England
<b>2011</b>	0-15	16.5	17.6	18.5
	16-64	61.1	62.8	64.5
	65 and over	23.4	19.6	17.1
<b>2021</b>	0-15	14.2	17.1	18.1
	16-64	55.7	59.4	62.4
	65 and over	30.1	23.5	19.5

Source: ONS Census 2021<sup>1</sup>

### Disability

- 5.2.3 **Table 5-3** presents data on disability according to Census 2021. This shows that 20.7% of the population of the Study Area have a disability that limits their day-to-day activities, this is slightly higher than the figure for West Lindsey and Bassetlaw (20.5%), the East Midlands (18.4%), and for England (17.3%).
- 5.2.4 The proportion of the population with disabilities that limit their day-to-day activities a lot (8.4%) was slightly lower than the figure for West Lindsey and

<sup>1</sup> Some percentage figures may not add up to 100% as Census 2021 data was rounded to one decimal place.

Bassetlaw (8.8%) but higher than the regional and national figures, 7.7% and 7.3% respectively.

**Table 5-3: Disability (%) by geographical area, 2021 (Ref 14)**

Level of disability	Study Area	West Lindsey and Bassetlaw	East Midlands	England
Day-to-day activities limited a lot	8.4	8.8	7.7	7.3
Day-to-day activities limited a little	12.3	11.7	10.7	10
Long-term physical or mental health conditions but day-to-day activities not limited	8.1	7.6	7.1	6.8
No long-term physical or mental health conditions	71.2	71.2	74.6	75.9

Source: ONS Census 2021<sup>2</sup>

## Gender reassignment

- 5.2.5 Until the 2021 Census, there were no official statistics relating to gender reassignment; the data collected was only relating to sex (gender assigned at birth). The 2021 Census included the optional question “*Is the gender you identify with the same as your sex registered at birth?*”, for which the findings are presented at the national, regional and district council geographies in **Table 5-4**. No gender reassignment data was available at the ward level.
- 5.2.6 Of those who responded, the majority (94.5%) of combined West Lindsey and Bassetlaw’s population identified with the same gender as their sex registered at birth, 5.2% did not answer, and 0.3% identified with a different gender. The proportion of people identifying with a gender other than that assigned at birth is similar to regional and national numbers (0.5% both in East Midlands and England).

**Table 5-4: Gender identity (%) by geographical area, 2021 (Ref 15)**

Gender identity	West Lindsey and Bassetlaw	East Midlands	England
Gender identity the same as sex registered at birth	94.5	93.4	93.5

<sup>2</sup> Ibid.

<b>Gender identity</b>	<b>West Lindsey and Bassetlaw</b>	<b>East Midlands</b>	<b>England</b>
<b>Gender identity different from sex registered at birth but no specific identity given</b>	0.1	0.2	0.2
<b>Trans woman</b>	0.1	0.1	0.1
<b>Trans man</b>	0.0	0.1	0.1
<b>All other gender identities</b>	0.1	0.1	0.1
<b>Not answered</b>	5.2	6.1	6.0

Source: ONS Census 2021

## Marriage and civil partnership

5.2.7 **Table 5-5** presents data on legal partnership status according to Census 2021. This shows that a smaller proportion of West Lindsey and Bassetlaw population have never been married or in a civil partnership (30.7%) than the East Midlands (36.1%) and England (37.9%). In 2021, a larger proportion of the population of West Lindsey and Bassetlaw population were married to someone of a different sex (48.5%) than the East Midlands (45.4%) and England (44.2%). The proportion of the population divorced or widowed was slightly higher in West Lindsey and Bassetlaw than the regional and national figures.

5.2.8 No legal partnership data was available at the ward level.

**Table 5-5: Legal partnership status (%) by geography, 2021 (Ref 16)**

<b>Legal partnership status</b>	<b>West Lindsey and Bassetlaw</b>	<b>East Midlands</b>	<b>England</b>
Never married or entered a civil partnership	30.7	36.1	37.9
Married: opposite sex	48.5	45.4	44.2
Married: same sex	0.2	0.2	0.3
In a registered civil partnership: opposite sex	0.0	0.1	0.1
In a registered civil partnership: same sex	0.1	0.1	0.1
Separated	2.3	2.2	2.2
Divorced	10.6	9.5	9.1
Widowed	7.4	6.4	6.1

Source: ONS Census 2021<sup>3</sup>

## Pregnancy and maternity

- 5.2.9 While data on live births is not available at ward level, as shown in **Table 5-6**, in 2021 Lincolnshire and Nottingham made up 6,559 and 7,905 live births of the regional total for East Midlands of 47,860.

**Table 5-6: Live births by geography, 2021 (Ref 17)**

	Lincolnshire	Nottinghamshire	East Midlands
Live births (2021)	6,559	7,905	47,860

Source: ONS Mid-year Estimates 2021

## Race

- 5.2.10 **Table 5-7** shows that the majority of the population within the Study Area is White (98%). This is higher than the figure for the East Midlands (79.6%) and England (73.5%). All ethnic minority groups made up a smaller proportion of the population in the Study Area than in the East Midlands and England.

**Table 5-7: Ethnic group (%) by geography, 2021 (Ref 18)**

Ethnic group		Study Area	East Midlands	England
White	English, Welsh, Scottish, Northern Irish or British	96.0	79.6	73.5
	Irish	0.4	0.6	0.9
	Gypsy or Traveller	0.1	0.1	0.1
	Roma	0.0	0.1	0.2
	Other	1.4	5.3	6.3
Mixed/Multiple ethnic groups	White/Black Caribbean	0.3	0.6	0.8
	White and Black African	0.1	0.3	0.4
	White and Asian	0.4	1.0	0.9
	Other	0.2	0.5	0.8
Asian/Asian British	Indian	0.1	0.4	1.1
	Pakistani	0.0	0.5	0.8
	Bangladeshi	0.0	4.7	3.3

<sup>3</sup> Ibid.

<b>Ethnic group</b>	<b>Study Area</b>	<b>East Midlands</b>	<b>England</b>
	Chinese	0.0	2.8
	Other	0.0	1.7
Black/African/Caribbean/Black British	African	0.1	2.6
	Caribbean	0.0	1.1
	Other Black	0.0	0.5
Other ethnic group	Arab	0.0	0.6
	Other	0.0	1.6

Source: ONS Census 2021<sup>4</sup>

## Religion or belief

5.2.11 **Table 5-8** shows the demographics for religion or belief across the relevant geographies. The largest religion in the Study Area is Christianity, with 60.1% of the population identifying as Christian. This is higher than the national figure (46.3%). The largest religious minorities are Buddhists and Muslims, which each represent 0.2% of the Study Area population, this is lower than in England where Buddhists represent 0.5% and Muslims represent 6.7% of the population.

**Table 5-8: Religion or belief (%) by geography, 2021 (Ref 19)**

<b>Religion or belief</b>	<b>Study Area</b>	<b>West Lindsey and Bassetlaw</b>	<b>East Midlands</b>	<b>England</b>
Christian	60.1	55.0	45.4	46.3
Buddhist	0.2	0.2	0.3	0.5
Hindu	0.1	0.3	2.5	1.8
Jewish	0.1	0.0	0.1	0.5
Muslim	0.2	0.5	4.3	6.7
Sikh	0.1	0.1	1.1	0.9
Other religion	0.5	0.4	0.5	0.6
No religion	32.6	37.7	40.0	36.7
Religion not stated	6.2	5.6	5.9	6.0

Source: ONS Census 2021<sup>5</sup>

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

## Sex

5.2.12 **Table 5-9** shows the proportion of male and female residents across the different geographies. 50.1% of the Study Area are female and 49.9% are male, similar to the national split of 51% female compared to 49% male.



**Table 5-9: Sex (%) by geography, 2021 (Ref 20)**

Sex	Study Area	West Lindsey and East Midlands Bassetlaw	England
Female	50.1	50.6	51.0
Male	49.9	49.4	49.0

Source: ONS Census 2021

## Sexual orientation

5.2.13 **Table 5-10** presents a breakdown of adults by their identified sexual orientation. In West Lindsey and Bassetlaw, a slightly higher proportion of the population identified as straight or heterosexual (91.3%) than regional and national figures. 2.1% of the population of West Lindsey and Bassetlaw identified their orientation as non-heterosexual compared to 2.9% in the East Midlands and 3.1% in England.

5.2.14 No sexual orientation data was available at the ward level.

**Table 5-10: Sexual orientation (%) by geography, 2021 (Ref 21)**

Sexual orientation	West Lindsey and East Midlands Bassetlaw	England
Straight or Heterosexual	91.3	89.4
Gay or Lesbian	1.1	1.5
Bisexual	0.9	1.3
Pansexual	0.1	0.2
Asexual	0.0	0.1
Queer	0.0	0.0
All other sexual orientations	0.0	0.0
Not answered	6.5	7.5

Source: ONS Census 2021<sup>6</sup>

## Key Findings

5.2.15 There are a number of key findings that have been identified through the collation of the equality baseline of the Study Area:

- a. In 2021, the proportion of residents who were over the age of 65 was much higher than the national figure and increasing over time.
- b. The proportion of the Study Area population with a disability which limits their day-to-day activities either 'a lot' or 'a little' is higher than the proportion of the national population.

<sup>6</sup> Ibid.

- c. Due to the aging population, it is expected that the proportion of the population who are disabled will increase in the coming years and should therefore be considered given the long-term nature of the Scheme.

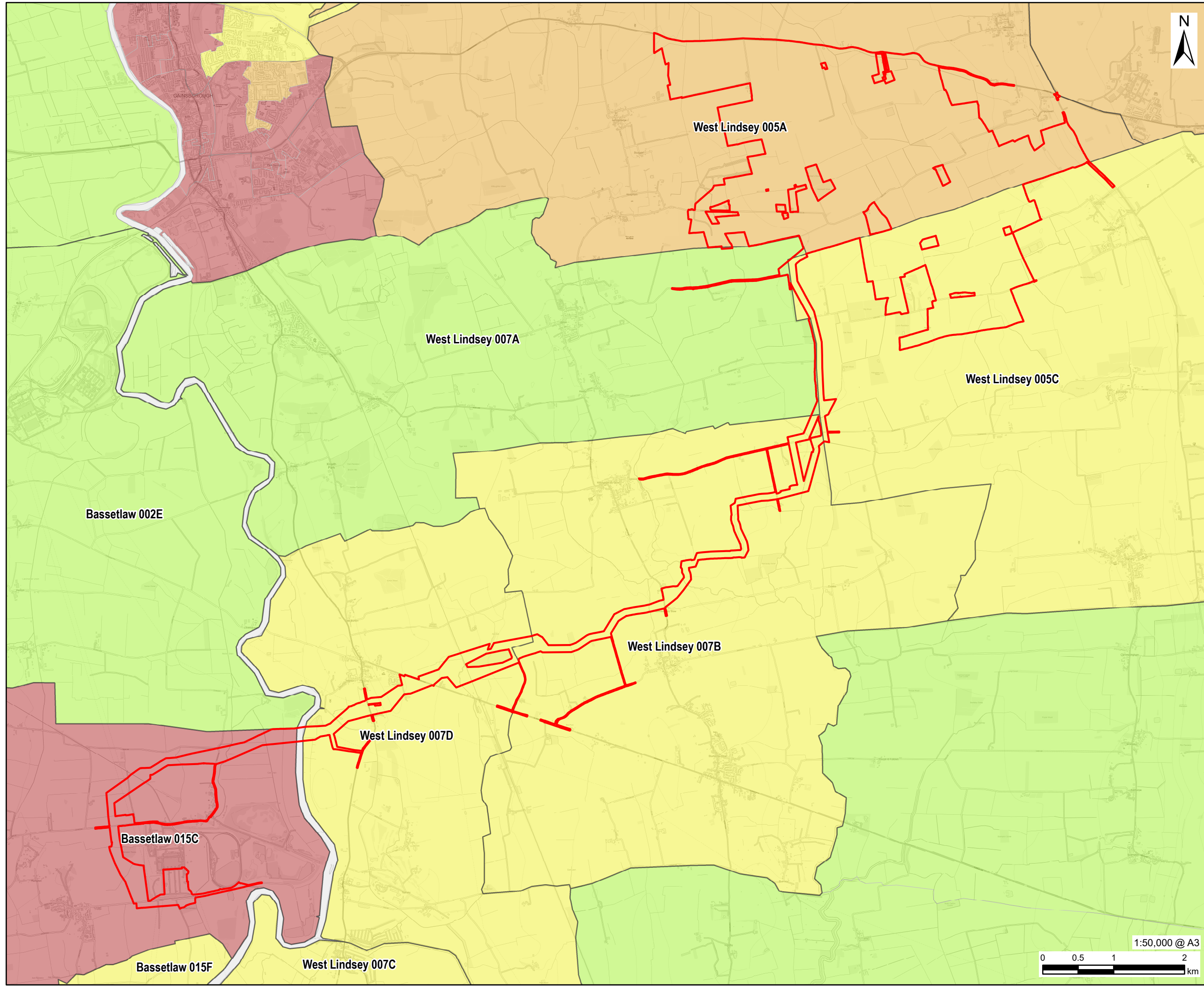
## 5.3 Socio-economic profile

### Introduction

- 5.3.1 The socio-economic profile considers several factors including levels of deprivation, employment, education, health, housing, transport, and connectivity; as well as access to services and facilities; public realm and open space and well-being.
- 5.3.2 These factors are pertinent to those with protected characteristics who face inequality and, as such, provide additional baseline information relevant to the assessment of equality effects.

### Deprivation

- 5.3.3 Deprivation is measured by the 2019 English Indices of Deprivation (Ref 22) and is measured against indicators and domains including income, employment, education, health, housing and services to produce individual measures of relative deprivation in by each domain and an overall measure of multiple deprivation.
- 5.3.4 People belonging to protected characteristic groups are more likely to experience deprivation, as they may experience poor health, have lower levels of income, or experience barriers to accessible housing, car ownership and access to services. This can lead to poor health and wellbeing outcomes, and detrimentally affect their equality of opportunity.
- 5.3.5 The Scheme sits within eight LSOAs, two in Bassetlaw (015C and 015F) and six in West Lindsey (007A, 007B, 007C, 007D, 005A and 005C). **Figure 5-1** presents these LSOAs and their location relative to the Order limits with a key for the level of deprivation represented by the different shading.
- 5.3.6 Census data is used in addition to provide further insight into employment, education, housing and health details of the relevant geographies. This data is presented at four geographical levels:
  - a. Sturton ward in Bassetlaw District Council and Hemswell, Lea, Stow and Torksey wards in West Lindsey District Council, which combined comprise the Study Area;
  - b. West Lindsey and Bassetlaw District Councils combined;
  - c. East Midlands region, which provides a wider regional context; and
  - d. England, to provide the fuller national context.



**PROJECT**  
Tillbridge Solar Project

**CLIENT**  
Tillbridge Solar Ltd

**CONSULTANT**  
Aldgate Tower  
2, Leman Street  
London, E1 8FA  
United Kingdom  
T +44-0207-645-2000

**LEGEND**

- Order limits
- LSOA Boundary (2019)

**Index of Multiple Deprivation (2019)**

- Most Deprived
- Least Deprived

**NOTES**

Contains Ordnance Survey Data © Crown Copyright and database right 2023.  
 © Crown copyright and database rights 2023.  
 Ordnance Survey 0100031673.  
 Index of Multiple Deprivation Data (2019) provided by the Consumer Data Research Centre, UK Open Government Licence (OGL)

**ISSUE PURPOSE**  
EQIA

**PROJECT NUMBER**  
60677969

**FIGURE TITLE**  
LSOA Index of Multiple Deprivation

**FIGURE NUMBER**  
Figure 5-1

1:50,000 @ A3



This drawing has been prepared by the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

5.3.7 In 2019, four of the LSOAs were in the top 50% of most deprived neighbourhoods in relation to overall multiple deprivation. Notably, the LSOA Bassetlaw 015C was in the top 20% of most deprived neighbourhoods.

## Income

5.3.8 Six of the LSOAs were in the top 50% of least deprived neighbourhoods with regards to income deprivation.

## Employment

5.3.9 In 2019, three of the LSOAs were in the top 40% of least deprived neighbourhoods for employment.

5.3.10 However, one was in the top 50% most deprived, a further three in the top 40% of deprived neighbourhoods and Bassetlaw 015C was in the top 10% of most deprived neighbourhoods for employment.

5.3.11 It is also relevant that four LSOAs in Gainsborough and nine LSOAs in Lincoln are in the top 10% of most deprived neighbourhoods in England for employment. Although the Scheme is not located within these LSOAs, **Chapter 14: Socio-economic and Land Use** and **Chapter 16: Transport and Access** of the ES [EN010142/APP/6.1] reference that some staff for the Scheme may originate from larger settlements nearby, citing Gainsborough and Lincoln specifically. Therefore, it is important to consider the high levels of employment deprivation in neighbouring LSOAs as they may be positively impacted by employment opportunities.

5.3.12 **Table 5-11** provides a breakdown of economic activity status across the relevant geographies: the Study Area, Bassetlaw and West Lindsay, the East Midlands and England. A smaller proportion of the Study Area are economically active (50.6%) compared to regional and national levels (55.1% and 55.7% respectively).

**Table 5-11: Economic Activity Status (%) by geography, 2021 (Ref 23)**

Economic activity status	Study Area	Bassetlaw and West Lindsey	East Midlands	England
<b>Economically active (excluding full-time students): In employment</b>	50.6	53.9	55.1	55.7
<b>Economically active (excluding full-time students): Unemployed</b>	1.8	2.2	2.4	2.9
<b>Economically inactive</b>	46.5	42.5	40.1	39.1

Source: ONS Census 2021<sup>7</sup>

<sup>7</sup> Ibid.

## Education

- 5.3.13 According to the English indices of deprivation, four of the LSOAs were in the top 40% of least deprived neighbourhoods regarding education, skills, and training. However, the other four LSOAs were in the top 50% most deprived neighbourhoods.
- 5.3.14 According to the most recent Census data, 25.6% of the population in the Study Area have level 3 qualifications or above. This is higher than for Bassetlaw and West Lindsey (24%) and the regional (24.3%) and national figures (22.2%).
- 5.3.15 The closest primary school to the Principal Site is Hemswell Cliff Primary School (approximately 400m to the north of the Principal Site).
- 5.3.16 The closest secondary schools to the Principal Site are to the west in Gainsborough.

## Health

- 5.3.17 Four of the LSOAs were in the top 50% of most deprived neighbourhoods, with the LSOA Bassetlaw 015C in the top 30% of most deprived neighbourhoods.
- 5.3.18 **Table 5-12** presents the self-reported general health rating from the 2021 Census across the relevant geographies. 82.2% of the English population rated their general health as 'very good' or 'good'. This was slightly lower in Bassetlaw and West Lindsey (79.1%) and in the Study Area (79.2%).

**Table 5-12: General Health (%) by geography, 2021 (Ref 24)**

General health	Study Area	Bassetlaw and West Lindsey	East Midlands	England
<b>Very good health</b>	43.5	43.8	46.2	48.5
<b>Good health</b>	35.7	35.3	34.8	33.7
<b>Fair health</b>	15.3	14.9	13.6	12.7
<b>Bad health</b>	4.3	4.6	4.2	4.0
<b>Very bad health</b>	1.1	1.3	1.2	1.2

*Source: ONS Census 2021<sup>8</sup>*

- 5.3.19 In Bassetlaw, the average personal well-being rating in 2021/2022 was 7.2 which was slightly below the national average (7.8). In West Lindsey, the score was similar to the national average at 7.1. (Ref 26)
- 5.3.20 There is one General Practice (GP) within close proximity of the Principal Site. This is Corringham Branch Surgery (approximately 1km away from the Principal Site). The next closest GPs are Willingham Surgery, which is approximately 3.5km south-east the Principal Site and the Ingham Practice, which is approximately 3.5km south-east of the Principal Site.

<sup>8</sup> Ibid.

5.3.21 The nearest hospital (with an accident and emergency department) to the Principal Site is Lincoln County Hospital, which is approximately 16.5km to the south of the Order limits.

## Housing

5.3.22 All eight LSOAs were in the top 30% of most deprived neighbourhoods for housing and services, with three LSOAs in the top 10% of most deprived neighbourhoods.

5.3.23 **Table 5-13** highlights that a higher proportion of the population in the Study Area own their home (78.1%) compared to the national average (61.3%). A smaller proportion live in socially rented housing (6.3%) compared to the English figure (17.1%) and 15.2% live in privately rented housing which is lower than the national figure (20.5%).

**Table 5-13: Tenure (%) by geography, 2021 (Ref 25)**

Tenure	Study Area	Bassetlaw and West Lindsey	East Midlands	England
<b>Owned</b>	78.1	69.2	65.5	61.3
<b>Social rented</b>	6.3	13.1	14.9	17.1
<b>Private rented</b>	15.2	17.0	18.7	20.5

*Source: ONS Census 2021<sup>9</sup>*

## Transport and connectivity

5.3.24 The Study Area is connected to other parts of the region and country by public transport; being services by bus and train connections.

5.3.25 There are a number of bus routes close to the Principal Site, primarily located on the A631, B1398 (Middle Street) and B1241 (Willingham Road). However, the services are relatively infrequent.

5.3.26 The closest railway stations to the Scheme are Gainsborough Central, Gainsborough Lea Road, Saxilby, and Retford Station. The rail services provide connections to: Sheffield, Lincoln, Leeds, Peterborough, Doncaster, London, York and Edinburgh. The services through Gainsborough are infrequent but are more regular in Saxilby and Retford. There are a limited number of rail services before 07:00 and after 19:00.

## Public realm, open space and community facilities

5.3.1 There is no designated open space within the Principal Site.

5.3.2 There are no designated open spaces within the Cable Route Corridor, but there are a number of Central Lincolnshire Local Plan designated open spaces within 500m of the Cable Route Corridor. These include: an important open space in Willingham by Stow, two in Stow, and two in Marton.

<sup>9</sup> Ibid.

The Bassetlaw Local Plan designated locally important open spaces in Cottam and Rampton.

- 5.3.3 The ability to access and use the public realm is important to ensuring that all members of society can participate in their community. However, certain protected characteristic groups such as people with a disability and some ethnic minorities are less likely to take part in public life than other sections of the population. For disabled people, public spaces can often be inaccessible due to mobility limitations. Access to the public realm is also important to the provision (and management) of play space for children.
- 5.3.4 Glentworth Village Hall is within 500m of the Principal Site. There are no other community facilities within 500m of the Principal Site.
- 5.3.5 There are the following community and recreational facilities within 500m of the Cable Route Corridor:
- a. The Ingleby Arms Pub, Marton;
  - b. Willingham Village Hall, Willingham by Stow;
  - c. Fox and Hounds Pub, Willingham by Stow;
  - d. The Cross Keys Stow Gastro Pub, Stow;
  - e. Ingleby Arms Pub, Marton;
  - f. Marton and Gate Burton Village Hall, Marton; and
  - g. Eyre Arms Pub; Rampton.

## Key findings

- 5.3.6 There are several key findings that have been identified through the collation of the equality baseline:
- a. There are varying levels of deprivation across the eight LSOAs within which the Scheme is located, with half in the top 50% of least deprived neighbourhoods, and half in the top 50% of most deprived neighbourhoods. Notably, one of the LSOAs (Bassetlaw 015C) was in the top 20% of most deprived neighbourhoods.
  - b. There is a higher proportion of economic inactivity in the Study Area compared to the national figure.
  - c. Beyond the Study Area but in close proximity to the Scheme there are four LSOAs in Gainsborough and nine LSOAs in Lincoln in the top 10% of most deprived neighbourhoods in terms of employment in England.
  - d. The LSOAs are most deprived in terms of housing and services, with all eight in the top 30% of most deprived neighbourhoods.
  - e. A higher proportion of the population of the Study Area own their property than do in the wider national population.
  - f. Levels of health deprivation varied across the LSOAs, with four in the 50% least deprived neighbourhoods and four in the top 50% of most deprived neighbourhoods.

## 6. Consultation and engagement

### 6.1 Overview

6.1.1 This section provides a summary of consultation activities undertaken in relation to the Scheme.

### 6.2 Non-statutory consultation

6.2.1 The Applicant carried out non-statutory consultation from July 2022 through to the start of statutory consultation in May 2023. This included an initial period of engagement and consultation with key stakeholders, such as landowners, near neighbours and statutory bodies. The intention was to work collaboratively to help understand key issues in the area.

6.2.2 On 11 July 2022, the Applicant launched the Scheme's website (Ref 27), which contained the following information:

- a. An overview to the Scheme, its location and introduction to the Applicant;
- b. An overview of the Site selection carried out so far (since 2020), including a map showing the latest proposals (as presented during the collaboration workshops);
- c. Vision and objectives for the Scheme;
- d. An overview of the planning process;
- e. An overview of the consultation process and opportunities for collaboration with other developers;
- f. An indicative timeline for the Scheme – from launch in 2022, through to anticipated start of construction;
- g. Frequently Asked Questions (FAQs);
- h. Information on how stakeholder can get in touch, including the Scheme's communication channels and online form.

6.2.3 Following this a series of collaborative workshops were held at local, accessible venues, involving elected representatives such as local councillors and parish councils, as well as environmental and community groups. A total of 110 individual stakeholders were invited to attend. The list of stakeholders who attended the workshop is outlined in the **Consultation Report [EN010142/APP/5.1]**.

6.2.4 Time and place of the workshops is displayed in the **Table 6-1** below:



**Table 6-1: Collaborative workshops**

<b>Workshop</b>	<b>Date and Time</b>	<b>Place</b>
Workshop 1	20 July 2022  1PM – 5PM	Glentworth Village Hall
Workshop 2	21 July 2022  2PM – 6PM	Willingham Village Hall
Workshop 3	22 July 2022  10AM – 2PM	Sturton by Stow Village Hall

6.2.5 The workshops allowed for introducing early-stage proposals, especially in relation to the Scheme’s location, and allowed for participants to discuss key aspects of the proposals in detail. Each workshop was chaired and facilitated by representatives of the Scheme and involved a presentation and question-and-answer sessions.

6.2.6 Information was presented using a PowerPoint presentation along with printed maps and plans. Throughout the sessions, attendees were able to provide their comments by engaging with the materials, including using printed comment sheet. Feedback and comments could be provided by the following means:

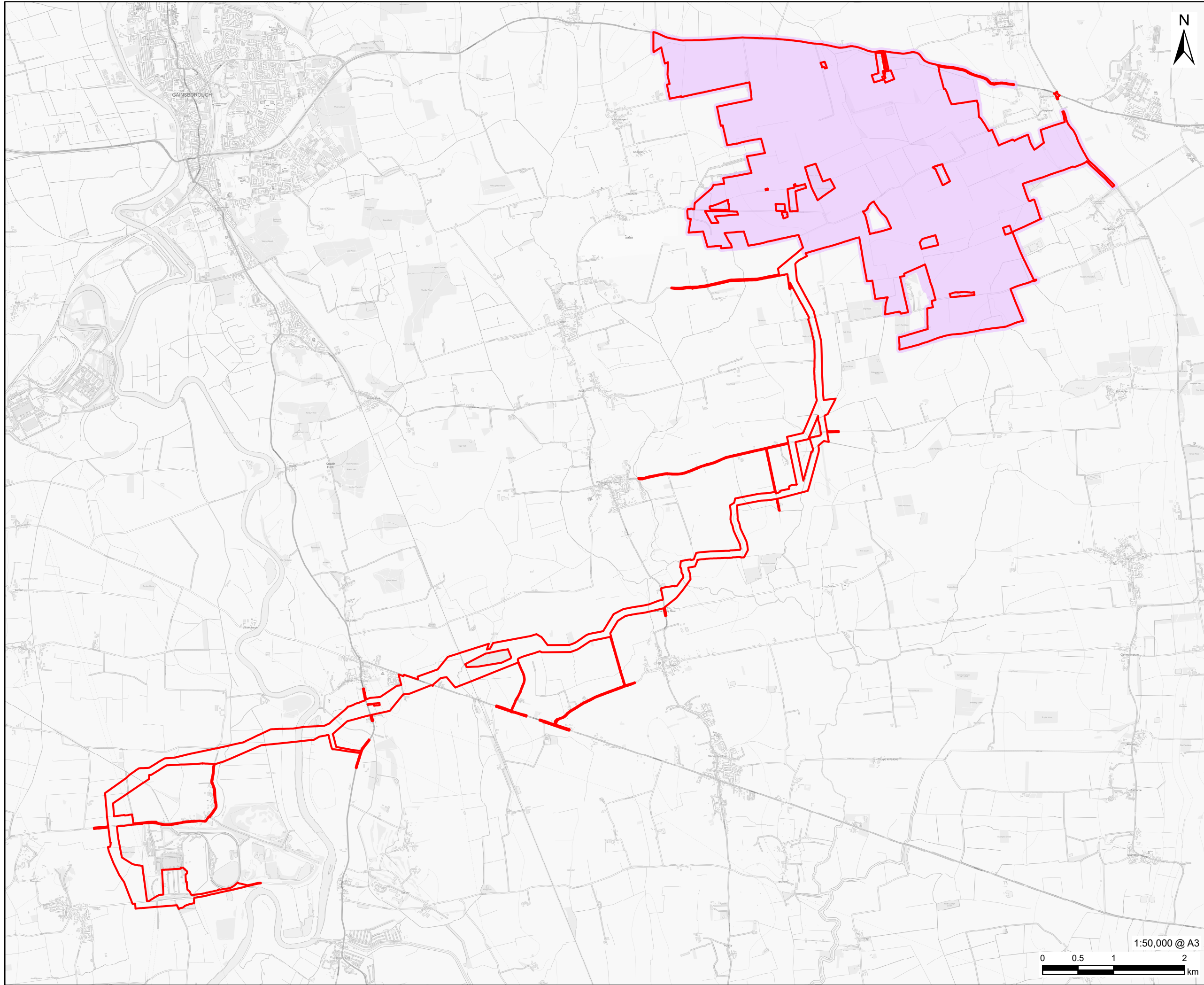
- a. Post-it notes (could be pinned on printed maps showing developable and non-developable areas);
- b. Pins and stickers (could be pinned onto maps to identify notable locations and constraints in the area);
- c. Writing directly onto maps;
- d. Comment sheets (to write down any final thoughts); and
- e. Noting down of key issues (both attendees and project team).

6.2.7 Attendees identified key issues, including concern about potential size and proximity to residential area of Springthorpe. In response to those concerns, the Applicant removed approximately 200ha of land to the west of Springthorpe and set the Scheme back further to the east from the village. In addition, there were comments highlighting the importance of agricultural land and rural landscape for the region. In response, the Applicant provided an explanation of planned assessments and mitigation to possibly minimise those impacts.

6.2.8 Feedback highlighted concerns about the cumulative impact of multiple solar projects in the region, given the proximity of the Scheme to the other solar developments. The Applicant ensured that there were plans to continue

working collaboratively with other projects in the area to ensure a common-sense approach to construction is taken to minimise disruption, and all impacts are fully assessed.

- 6.2.9 The Applicant issued a 'post-collaboration workshop report' in September 2022 to all stakeholders who were invited to the workshops, attended the workshops, and also additional stakeholders who were identified through an initial desk-based research exercise – along with suggestions from local planning authorities. A copy of this report can be found in **Appendix A-9** of the **Consultation Report [EN010142/APP/5.1]**.
- 6.2.10 In addition, the Applicant conducted engagement with near neighbours, with property owners selected based on their proximity to the Scheme. In total, 19 properties/sets of interested parties were met with. These meetings took place prior to the workshops and involved representatives of the Scheme providing introductory information and welcoming comments on how plans could be refined.
- 6.2.11 Following the collaboration workshops, the Applicant continued to engage with key stakeholders, including through setting up regular meetings with local planning authorities, circulating an initial community newsletter (October 2022), offering and attending meetings with local stakeholders (parish councils, local residents, landowners), and holding meetings with statutory/technical consultees to assist with the Environmental Impact Assessment (EIA) process and design refinement.
- 6.2.12 Local seldom heard groups and under-represented groups were included in consultee lists, which were included in the draft Statement of Community Consultation (SoCC) dated 13 February 2023. The Applicant contacted these groups ahead of consultation to ensure that the approach best met the needs of members and invited suggestions for any additional groups that should be contacted as part of the consultation.
- 6.2.13 Early-stage engagement also included meeting with near neighbours in close proximity to the Principal Site. The Applicant sought to engage with parties at various stages in the pre-application period, including prior to Scheme launch (July 2022), statutory consultation (May 2023) and on an ongoing basis. Engagement with near neighbours included:
- a. An initial 'door-knocking' exercise in July 2022 (see below).
  - b. Distributing hard copy community newsletters and documentation, before and in between periods of consultation.
  - c. Face-to-face meetings with members of the project team, on request.
- 6.2.14 As presented in **Figure 6-1**, near neighbours were defined as properties within or immediately adjacent to (less than 50m) to the Order limits, in relation to the Principal Site, as it was assumed that they would likely be subject to the greatest impacts.



**PROJECT**  
Tillbridge Solar Project

**CLIENT**  
Tillbridge Solar Ltd

**CONSULTANT**  
Aldgate Tower  
2, Leman Street  
London, E1 8FA  
United Kingdom  
T +44-0207-645-2000

**LEGEND**

- Order limits
- Near Neighbour Zone

**NOTES**

Contains Ordnance Survey Data © Crown Copyright and database right 2023.  
© Crown copyright and database rights 2023.  
Ordnance Survey 0100031673.

**ISSUE PURPOSE**  
EQIA  
**PROJECT NUMBER**  
60677969

**FIGURE TITLE**  
Mailing Zone For Near Neighbour Communications

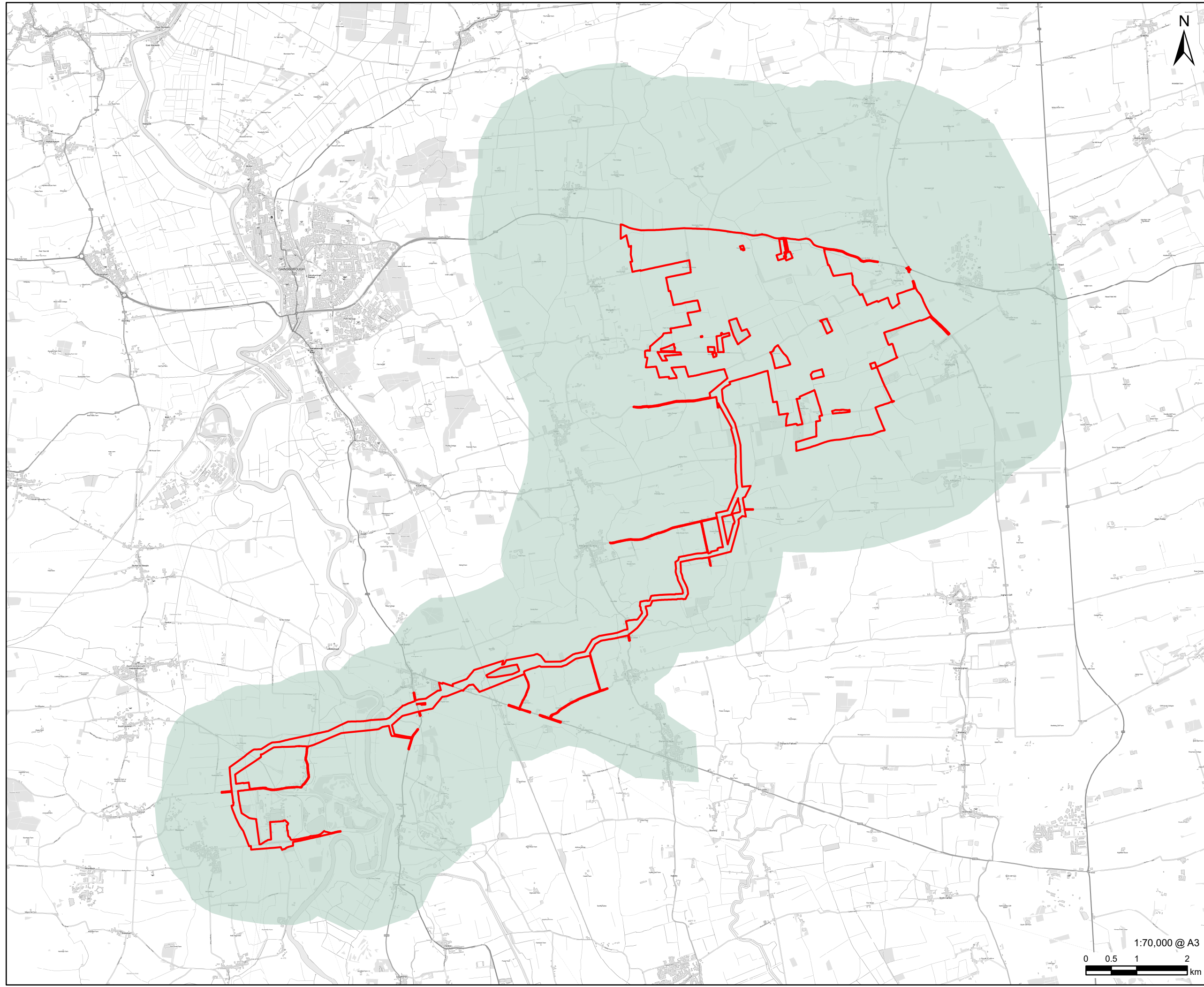
**FIGURE NUMBER**  
Figure 6-1

This drawing has been prepared by the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

- 6.2.15 Through a mix of pre-arranged meetings and a ‘door-knocking’ exercise, a total of 19 properties/sets of interested parties were met with across three separate site visits - two in July 2022 and one in September 2022. The visits included return visits to follow up discussions in July. This enabled local comments and issues to be fed into the Scheme design at the non-statutory consultation stage.
- 6.2.16 Site visits during this time included meeting with residents, farmers (who were operating in the area), and further interested parties.
- 6.2.17 The Applicant used the site visits as an opportunity to introduce the Scheme to local residents, where respective properties were located in relation to the draft Order limits (at that point in time) and also the likely landscape and visual impacts.
- 6.2.18 The Applicant also used these site visits to help to continually refine the Scheme design and inform the proposals for the statutory consultation. A summary of engagement before, during and after the statutory consultation is provided in the **Consultation Report [EN010142/APP/5.1]**.

### 6.3 Statutory Consultation

- 6.3.1 Whilst preparing for the statutory consultation, the Applicant developed a SoCC, which described how the requirements of the PA 2008 and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (“EIA Regulations”) were met and set out how the consultation would be undertaken with people living in vicinity of the land affected by the Scheme. The SoCC was published in Spring 2023, made available on the Scheme’s website, as well as at local information points.
- 6.3.2 The purpose of the statutory consultation was to ensure that all key stakeholders had the opportunity to understand the detailed proposals and influence them. The statutory consultation period ran for six weeks and began on 30 May 2023, and finished on 11 July 2023.
- 6.3.3 The Applicant sought to consult with a range of statutory and non-statutory consultees, in accordance with section 42 of PA 2008, the EIA Regulations, and the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (APFP Regulations), as well as people who live in the vicinity of the Scheme, including those in areas where the Scheme may have a direct or indirect impact.
- 6.3.4 Following a delineation of the primary consultation zone (PCZ) – which initially extended by a minimum of 2 km from the boundary of the Order Limits – all homes and businesses within it received consultation leaflets in the post at the start of the consultation period. **Figure 6-2** below presents the PCZ.



**PROJECT**  
Tillbridge Solar Project

**CLIENT**  
Tillbridge Solar Ltd

**CONSULTANT**  
Aldgate Tower  
2, Leman Street  
London, E1 8FA  
United Kingdom  
T +44-0207-645-2000

**LEGEND**  
Order limits  
Primary Consultation Zone

**NOTES**  
Contains Ordnance Survey Data © Crown Copyright and database right 2023.  
© Crown copyright and database rights 2023.  
Ordnance Survey 0100031673.

**ISSUE PURPOSE**  
EQIA  
**PROJECT NUMBER**  
60677969  
**FIGURE TITLE**  
Primary Consultation Zone

**FIGURE NUMBER**  
Figure 6-2

This drawing has been prepared by the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

- 6.3.5 The consultation was developed to be accessible to all groups in the community, including those under-represented or seldom heard groups and individuals who may be less likely to participate or respond to traditional consultation techniques. The Applicant identified the following groups and individuals that might need additional support:
- a. Geographically isolated communities;
  - b. Economically inactive individuals and socially deprived communities;
  - c. Young people;
  - d. Older people;
  - e. Disabled people and those with learning disabilities;
  - f. Ethnic minorities; and
  - g. Time poor, busy working people.
- 6.3.6 The Applicant used a range of digital and non-digital methods of communication to ensure the consultation could be accessed by all members of the community.
- 6.3.7 Those organisations were contacted by email and/or post, ahead of the consultation to ensure that the approach best meets best the needs of their members, including format of the consultation materials.
- 6.3.8 **Table 6-2** below outlines the consultation activities during the statutory consultation period.

**Table 6-2: Consultation activities during statutory consultation**

<b>Method and activities</b>	<b>Details</b>
<b>In-person consultation events</b>	<p>Six events were held across PCZ:</p> <ul style="list-style-type: none"> <li>• Glentworth Village Hall (Wed 14 June 2023, 2:30PM – 7PM)</li> <li>• Willingham Village Hall (Sat 17 June 2023, 10AM – 2PM)</li> <li>• Sturton by Stow Village Hall (Thu 22 June 2023, 1:30PM – 5:30PM)</li> <li>• Corringham Village Hall (Fri 30 June 2023, 12PM – 4PM)</li> <li>• Rampton Village Hall (Sat 1 July 2023, 2:30PM – 6:30PM)</li> <li>• Hemswell and Harpswell Village Hall (Thu 6 July 2023, 2:30PM – 6:30PM)</li> </ul> <p>Project team members were available at the events to discuss the proposals and answer questions.</p> <p>All venues were located within the PCZ and had full disabled access.</p>

<b>Method and activities</b>	<b>Details</b>
	<p>Events were held on different days of the week with varied hours.</p> <p>Invitations to or requests for meetings coming from local groups or special interest organisations were considered on a case-by-case basis.</p>
<b>Digital consultation events</b>	<p>Two webinars were held:</p> <ul style="list-style-type: none"><li>• Wed 7 June 2023 – 6:30PM to 8PM</li><li>• Mon 10 July 2023 – 6:30PM to 8PM</li></ul> <p>Attendees were able to register on the project website or by sending an email.</p> <p>Online webinars were to be organised with political stakeholders to provide information about the consultation.</p>
<b>Telephone call-backs</b>	<p>Members of the public were be able to request a call back from a member of the project team.</p> <p>The phone line was operational between 9AM and 5:30PM Monday through Friday during the consultation period. There was a possibility to arrange a call back at a time suitable for them, including outside of office hours.</p>
<b>Information channels</b>	<p>Digital: website enquiries, email</p> <p>Dedicated telephone number</p> <p>Freepost</p>
<b>Local information point</b>	<p>Collection of materials connected to the Scheme was available from various locations in Lincolnshire (West Lindsey County Council, Lincoln Central Library, Gainsborough Library, Saxilby Library) and Nottinghamshire (Retford Library), throughout the entire consultation period.</p>
<b>Scheme website</b>	<p>All consultation materials were made available in digital format from 30 May 2023.</p> <p>The latest plans were presented on an interactive map accessed through the website.</p>
<b>Consultation materials</b>	<p>Consultation materials included:</p> <ul style="list-style-type: none"><li>• Project information booklet</li><li>• Statutory consultation leaflet</li><li>• Feedback questionnaire</li><li>• Frequently Asked Questions (FAQ)</li></ul>

<b>Method and activities</b>	<b>Details</b>
	<ul style="list-style-type: none"><li>• Preliminary Environmental Information Report and Non-technical Summary</li><li>• Technical Scheme documentation, including maps and plans of the Scheme</li></ul> <p>Hard copies of selected materials were available to view and take away at the in-person events.</p> <p>Consultation leaflet and feedback questionnaires were available at local information points.</p> <p>Upon request made by phone, email, or in-person at consultation events, all documents could have been made available in alternative accessible formats, such as braille and text-to-speech, and in alternative languages.</p>
<b>Responses</b>	<p>Consultation responses were received by:</p> <ul style="list-style-type: none"><li>• Completing the digital feedback questionnaire</li><li>• Attending a consultation event and completing a printed feedback questionnaire, which can be handed in person or taken away and sent by freepost</li><li>• Emailing the dedicated address</li><li>• Writing a letter</li></ul>
6.3.9	<p>The statutory consultation was promoted via posting the consultation leaflets within PCZ, press releases in local and regional media, two rounds of newspaper advertisements (print and digital), stakeholder briefings with political representatives, emails and letters, a statutory notice, SoCC, Information posters, and social media advertisements, in accordance with the requirements of the PA 2008, the APFP Regulations and the EIA Regulations.</p>
<b>6.4 Targeted consultation</b>	
6.4.1	<p>Following statutory consultation in May to July 2023, the Applicant made a number of localised changes to the indicative Order limits as a result of ongoing design evolution informed by engineering reviews and working collaboratively with other developers in the area.</p>
6.4.2	<p>Following statutory consultation, revisions have been identified through statutory consultation feedback, landowner discussions and additional engineering work, including making small additions to the indicative Order limits.</p>
6.4.3	<p>The changes represented a localised, small degree of change and were not material in the context of the overall Scheme. The summary of changes made is available in <b>Chapter 11</b> of the <b>Consultation Report [EN010142/APP/5.1]</b>.</p>



- 6.4.4 In light of the minor localised changes described in **Section 11.1** of the **Consultation Report [EN010142/APP/5.1]**, the Applicant considered how best to consult on the additional areas.
- 6.4.5 As established in **Section 11.1** of the **Consultation Report [EN010142/APP/5.1]**, the Applicant considered the proposed changes to be minor as the Scheme had not changed “very substantially”, so therefore decided that there was no requirement to repeat the statutory consultation, as set out in the SoCC. As per the SoCC, the Applicant included the following information to allow for further targeted consultation to be held in a proportionate manner.
- 6.4.6 Whilst the Applicant did not consider full re-consultation with the local community necessary, the changes did involve an extension to the indicative Order limits and additional compulsory acquisition powers/rights to use the land temporarily over those areas.
- 6.4.7 The Applicant carried out a diligent enquiry process to identify the land interests potentially affected by the additional areas identified and a strategy to undertake a targeted consultation with them.
- 6.4.8 The Applicant undertook targeted consultation on the additional areas to the indicative Order limits with selected local communities in vicinity of the localised changes.
- 6.4.9 Given the minor nature of the localised changes, the Applicant deemed it unnecessary to carry out full re-consultation with local communities, so did therefore not undertake the same engagement activities as during the statutory consultation.
- 6.4.10 The Applicant prepared and issued the following materials to parish councils, elected members and bodies representing the communities identified:
- a. A covering letter providing an overview of the localised changes being consulted on and the targeted consultation process including details of how it was being communicated, as well as the offer to meet and brief representatives in person. Different versions of this letter were prepared and sent to the following stakeholders:
    - i. Members of parliament whose Westminster constituency was identified as being in the vicinity of the localised changes.
    - ii. County Council and District Council ward members whose electoral divisions/wards were identified as being in the vicinity of the localised changes.
    - iii. The clerks for parish councils/meetings whose parish boundaries were identified as being the vicinity of the localised changes.
  - b. A printed plan showing the indicative Order limits being consulted on as part of the targeted consultation.
  - c. A copy of the targeted statutory consultation brochure, explaining each individual change to the indicative Order limits with additional maps.
  - d. Printed plan(s) showing the parties’ relevant interests (e.g. the relevant change plan(s) in relation to the respective county/district/parish boundaries).

- 6.4.11 All covering letters and targeted consultation materials were sent to the stakeholders by Royal Mail recorded delivery in December 2023. Emails were also issued on ahead of the consultation starting on 14 December 2023, when the website was also updated.
- 6.4.12 One of the methods to consult local communities in the vicinity of the changes was to place public notices in local newspapers circulating in the vicinity of the land. Consistent with the publication of notices at statutory consultation (under section 47 and section 48 of the PA 2008), notices were placed in the Lincolnshire Echo, Gainsborough Standard and Retford Times on 14 December 2023. The notice was also uploaded to the Scheme website on the same day.
- 6.4.13 The public notice provided the following information:
- a. Introduction to the Scheme and its location;
  - b. Overview of the targeted consultation and reasoning for localised changes;
  - c. Information on where consultation information could be found; a link to the Scheme website; and how people could request consultation materials free of charge; and
  - d. Description of how people could provide feedback, with a clear indication of the close date of the consultation (25 January 2024).
- 6.4.14 As detailed in **Section 11** of the **Consultation Report [EN010142/APP/5.1]**, in total 40 consultees responded to the targeted consultation. Two comments from a landowner were received in relation to Construction and Operation. One comment related the use of access during the construction of Scheme, in which the landowner confirmed that the private lane could not be used by any construction traffic. The Applicant confirmed that it is not proposing to make use of the driveway off School Lane during construction, operations or decommissioning. The second comment noted that two fields to the south of the property were not in the Order limits of the Scheme, also noting permissions for archaeological trenching in the landowner's fields had been refused. The Applicant notes these comments, with the extent of the study areas for heritage assessment and mitigation measures set out in **Chapter 8: Cultural Heritage** of the ES [EN010142/APP/6.1].

## 6.5 Engagement with seldom heard and underrepresented groups

- 6.5.1 The Applicant identified a range of relevant local interest groups, community organisations and gateway organisations representing the interests of seldom heard and underrepresented groups for inclusion at statutory consultation and adapted the consultation approach to attempt to meet the needs of these groups.
- 6.5.2 The Applicant sent a consultation leaflet by direct mail to all addresses within the PCZ, along with electronic copies to local interest groups and community organisations with potential interests in the vicinity of the proposed Scheme, as well as gateway organisations representing the interest of seldom heard and under-represented groups, listed in paragraph 6.3.5. The leaflet invited

the consultees to provide their feedback to the documents made available on the Applicant's website and provided details of consultation events.

- 6.5.3 Residents were offered a range of means to feedback and additional support to do this, where necessary. The SoCC (Ref 28) set out the consultation methods in which the Applicant engaged with these groups:
- a. Providing details about how information on the Scheme can be accessed, including online and hard copy;
  - b. Providing materials in alternative formats, including dementia friendly, Braille and large print (upon request); and
  - c. Assisting with providing feedback where possible, including via the communications lines and at face-to-face consultation events.
- 6.5.4 The Applicant used a range of free-to-use communications channels, including a freephone number, and a combination of in-person and digital formats to share information and receive feedback. The Applicant continued to notify under-represented or seldom heard groups of consultation opportunities throughout the consultation period.
- 6.5.5 Where concerns were raised by members of seldom heard and/or under-represented groups, related to protected characteristics, the Applicant engaged directly with the relevant individuals to understand their concerns and discuss potential resolutions.

## 7. Assessment of Impacts

### 7.1 Introduction

- 7.1.1 The assessment of impacts considers the potential effects on groups sharing protected characteristics arising from the impacts of the proposed Scheme. It also considers proposed mitigation measures where applicable and actions to further positive benefits.
- 7.1.2 It considers potential positive and negative effects during consultation activities, as well as the construction, operation, and decommissioning phases of the Scheme.
- 7.1.3 A judgement has been made as to the potential effects on protected characteristic groups using available DCO documents, wider evidence such as the legislation and policy review and equalities baseline, and consultation information and feedback. In particular, the assessment draws upon evidence from the following sources:
- a. The **ES [EN010142/APP/6.1]**, including information from **Chapter 11: Human Health, Chapter 13: Noise and Vibration, Chapter 14: Socio-economics and Land Use**; and **Chapter 16: Transport and Access**;
  - b. **Consultation Report [EN010142/APP/5.1]**;
  - c. **Framework CEMP [EN010142/APP/7.8]** submitted alongside the DCO application;

- d. **Framework OEMP [EN010142/APP/7.9]** submitted alongside the DCO application; and
  - e. **Framework DEMP [EN010142/APP/7.10]** submitted alongside the DCO application.
- 7.1.4 The assessment of each of each stage considers the following key themes:
- a. Community – the impact on those living in the local area;
  - b. Local business, employment and skills – the impact on those working in the local area; and
  - c. Wider – the wider impact of the Scheme on the wider population through the generation of renewable energy.

## 7.2 Consultation

### **Positive: inclusive community consultation**

- 7.2.1 For a Scheme of this size, significant consultation is required with key stakeholders and communities during the planning stage. Listening to the needs of a wide range of stakeholders allows for the Scheme to be designed and operated in a way which does not cause harm and brings the greatest benefit.
- 7.2.2 Some groups with protected characteristics, such as older people and disabled people, can be excluded from traditional consultation approaches if a “one-size-fits-all” approach is taken to events, materials and communication.
- 7.2.3 Where groups are excluded, their needs may not be considered within the planning process potentially leading to differential negative impacts on these groups.
- 7.2.4 As the Study Area contains a significant proportion of older people and a higher proportion of disabled people than the national population, it is important that these groups’ needs are considered.
- 7.2.5 The Applicant has targeted engagement to seldom heard and under-represented groups and offered materials in formats which meet the needs of the local population, including the provision of written, braille and dementia friendly materials in an area where a high proportion of the population are older people.
- 7.2.6 Where in-person consultation events were held, venues within the PCZ with disabled access were chosen and support provided by the Applicant for attendees to provide feedback.
- 7.2.7 The Applicant has also committed to continued engagement throughout the determination process and has demonstrated engagement with residents with protected characteristics in the pre-submission stages.
- 7.2.8 The Applicant plans to develop and administer a Community Benefits Fund to support projects in the local communities in proximity to the Scheme. The Applicant has consulted Lincolnshire Community Foundation and Nottinghamshire Community Foundation to identify an appropriate means to

carry this out and would adhere to the solar industry standards in place for community benefit at the time that Scheme is constructed.

- 7.2.9 The positive effects of this approach to engagement may be that some groups were able to contribute their feedback to the consultation process, through the venues, materials and communication channels chosen by the Applicant, who may not have been able to otherwise.

## 7.3 Construction

### Positive: Increased employment and employability in local area

- 7.3.1 The construction phase of the Scheme will require a significant number of workers, which will create a large number of jobs in the Study Area. According to **Chapter 14: Socio-economics and Land Use** of the ES **[EN010142/APP/6.1]**, the Scheme will support, on average, 914 net additional jobs during the construction period, 138 of which will be expected to be taken-up by residents within the 60-minute drive time Study Area.
- 7.3.2 As the Study Area has high levels of deprivation related to employment, this job creation may positively benefit young people, disabled people, ethnic minorities, and women, who are overrepresented in unemployment figures and in some cases, under-represented in the construction industry.
- 7.3.3 In the **Framework Skills, Supply Chain and Employment Plan (FSSCEP) [EN010142/APP/7.18]** submitted alongside the DCO application, the Applicant commits to working with local partners to communicate opportunities for local businesses to secure work on the supply chain for the Scheme. In addition to providing positive effects for local businesses, this may also provide increased employment for local people who are experiencing employment deprivation.
- 7.3.4 The **FSSCEP [EN010142/APP/7.18]** submitted alongside the DCO application also outlines that the Applicant will consider a programme to promote apprenticeships during all phases of the Scheme which may create opportunities for young people.
- 7.3.5 The Applicant will also support wider workforce training and investigate a programme of activities to promote Science, Technology, Engineering and Mathematics (STEM) subjects in schools and colleges. This may have positive effects on children, young people and those who may be under-represented in STEM careers, such as women.
- 7.3.6 In addition to following a sustainable sourcing and equality policy, the Applicant will require all contractors to provide workforce metrics in relation to workforce diversity and gender split of the workforce. Having these metrics available may have a positive effect on protected characteristic groups through targeted interventions to address inequalities.
- 7.3.7 The Applicant plans to develop and administer a Community Benefits Fund to support projects in the local communities in proximity to the Scheme. This may benefit protected characteristic groups if funds are administered to projects that would support these groups, including in employability.

## Negative effect: Traffic and Public Right of Way (PRoW) impacts during construction

- 7.3.8 The construction phase of the Scheme will increase the number of vehicles on the local road network.
- 7.3.9 As outlined in **Chapter 16: Transport and Access** of the ES [EN010142/APP/6.1], at the peak of construction the Principal Site will accommodate a maximum of 1,225 construction staff per day, and generate 500 construction staff vehicle movements (1,000 daily two-way movements), assuming that 650 construction staff travel by private vehicle with an occupancy of 1.3 staff per vehicle. The Principal Site will also generate 120 HGV deliveries (240 movements per day), and 60 LGV deliveries (120 movements per day) at the peak of construction. The Cable Route Corridor will accommodate 170 construction staff per day, generating 131 construction staff vehicle movements (262 two-way movements) as well as 272 HGV deliveries (544 movements per day). Resultant increased congestion and vehicular pollution on surrounding roads, residences, businesses, and facilities may particularly affect people with mobility issues and heightened sensitivity such as older people, disabled people, and children.
- 7.3.10 **Chapter 16: Transport and Access** of the ES [EN010142/APP/6.1] highlights that there is expected to be a substantial increase in traffic flow on the B1241 north of Fleets Road (ATC23) during the AM peak construction hours (between 06:00 – 07:00) that could cause severance, pedestrian delay, and negatively affect non-motorised user amenity. These issues could implicate certain protected characteristic groups who need to access nearby facilities that they are dependent on, for example; children attending Sturton by Stow Primary School which is located adjacent to the B1241 may be negatively impacted by severance and delays, as well as increased vehicular pollution to which they have heightened sensitivity. Similarly, the PRoW Assessment which is contained in **Chapter 16: Transport and Access** of the ES [EN010142/APP/6.1] identifies a potential negative impact on PRoW BOAT13 due to a non-diverted temporary closure of up to four weeks. This is assessed to also cause severance, pedestrian delay, and negatively affect non-motorised user amenity. The impact of this closure could affect certain protected characteristic groups including elderly and disabled people who are more likely to be unable to use alternative means of transport such as private vehicles, and who depend on the PRoW to access key facilities.
- 7.3.11 Furthermore, **Chapter 16: Transport and Access** of the ES [EN010142/APP/6.1] outlines that the Principal Site and Cable Route Corridor are both served by a number of bus routes, including on the roads likely to see increased HGV movements (A631 and B1241). Any increased congestion could potentially result in delays on public transport. This could have a differential impact on people particularly reliant on public transport to make journeys, such as women, ethnic minorities and young people (Ref 30).
- 7.3.12 During construction the impacts of increased traffic, severance, pedestrian delay and non-motorised users will be mitigated by measures established in the **Framework CTMP [EN010142/APP/7.11]** submitted alongside the

application. These measures will include a cap on construction staff vehicle parking, encouraging car sharing, and external shuttle bus services providing transport between temporary accommodation / residential centres and the Principal Site. In relation to the identified impacts on the B1241 in particular, the effects are assessed to only occur for a short period if activity on the construction of the Cable Route Corridor is concentrated in that particular area with works being carried out at multiple Cable Route Corridor sites accessed via the B1241. Potential impacts identified in relation to BOAT13, and the closure without diversion, will only last for up to four weeks.

- 7.3.13 An internal shuttle service is anticipated to be utilised to transport construction staff from the Principal Site to the Cable Route Corridor (and vice-versa) to reduce vehicular trips on the surrounding highway network.
- 7.3.14 The working hours of 07:00-19:00 will mean construction staff will travel to and from the site outside of peak hours and the HGV movements will be distributed evenly across an eight-hour window, arriving and departing between 08:30-16:30.
- 7.3.15 These measures would mitigate the negative impacts associated with increased construction traffic.

### **Negative: Increased noise and vibration during construction**

- 7.3.16 The construction stage will contribute additional noise and vibration to the local area for an approximate 24-month period.
- 7.3.17 As outlined in **Chapter 13: Noise and Vibration** of the ES **[EN010142/APP/6.1]**, predictions were undertaken at noise receptor locations and all predicted noise levels were judged not to be significant.
- 7.3.18 However, while construction noise may not have a negative impact on the majority of residents, construction related noise impacts could differentially affect some groups with protected characteristics. For example, older and disabled people may experience auditory and perception issues, cardiovascular problems and psychological annoyance or disorientation due to noise and vibrations (Ref 32). There is research to suggest that environmental noise pollution has a disproportionate impact on children with autism as it affects sleep and affective or behavioural problems (Ref 34).
- 7.3.19 The NPS EN-1 (Ref 6) sets out that excessive noise can have impacts on health and well-being, including annoyance, sleep disturbance, cardiovascular disease and mental ill-health.
- 7.3.20 During periods of substantial drilling, predicted noise levels are higher but are not considered sufficient to result in significant adverse effect. Prior warning of timings and durations of such works is considered sufficient to avoid significant effects and complaints. This will be secured through the **Framework CEMP [EN010142/APP/7.8]** submitted alongside the DCO application.
- 7.3.21 As established in the **Framework CEMP**, measures will be undertaken to mitigate the negative impacts of noise and vibration during construction.

- 7.3.22 Whilst the effects are not considered to be significant, increased noise and vibrations may have a negative effect on local residents with protected characteristics, particularly those who are more sensitive to noise.

### **Negative: Increased air pollution during construction**

- 7.3.23 **Chapter 6: Air Quality** of the ES [EN010142/APP/6.1] highlights that dust generated from construction activities could result in the deterioration of air quality which may have a negative impact on the wellbeing of local residents.
- 7.3.24 There is potential for air quality impacts arising from the construction of the Scheme to negatively affect residents, as well as business or community facilities and their users.
- 7.3.25 Deterioration in air quality could exacerbate pre-existing chronic conditions in elderly people and cause new respiratory problems (Ref 33). Pregnant people are also more susceptible to the negative impacts of air pollution.
- 7.3.26 Given that the proportion of the population of the Study Area over the age of 65 is 30.1% which is much higher than the national figure (18.4%), the disproportionate effects on older people are particularly important to consider.
- 7.3.27 As set out in **Chapter 6: Air Quality** of the ES [EN010142/APP/6.1] and **Chapter 16: Transport and Access** of the ES [EN010142/APP/6.1], a transport assessment undertaken has concluded that the air quality effects on receptors from construction traffic would be negligible.
- 7.3.28 A qualitative dust risk assessment has been undertaken to assess the significance of any effects on sensitive receptors. The risk of dust impact during construction is classified as low risk to human health in **Chapter 11: Human Health** of the ES [EN010142/APP/6.1].
- 7.3.29 The steps which will be taken to avoid impacts of the production of dust during construction will be secured through the **Framework CEMP [EN010142/APP/7.8]** submitted alongside the DCO application.
- 7.3.30 As established in the **Framework CEMP [EN010142/APP/7.8]** submitted alongside the DCO application, measures will be undertaken to mitigate the air quality during construction.
- 7.3.31 However, whilst the effects are not considered to be significant, there may be disproportionate negative effects on older, disabled or pregnant residents.

## **7.4 Operation**

### **Negative: Increased noise levels during operation**

- 7.4.1 During the operational stage, there will be a slight increase in noise levels relative to the existing baseline, associated with the infrastructure and machinery required to operate the Scheme.
- 7.4.2 The expected noise levels for the operational stage are lower than during construction, but the effects will be long-term due to the duration of the operational stage.



- 7.4.3 **Chapter 13: Noise and Vibration** of the ES [EN010142/APP/6.1] establishes that while there is not anticipated to be any noticeable impulsive or intermittent emissions experienced at the surrounding receptors during the operational phase of the Scheme, overall plant noise emissions experienced at receptors are likely to be perceived as a distinctive continuous and steady hum.
- 7.4.4 In **Chapter 13: Noise and Vibration** of the ES [EN010142/APP/6.1], it is concluded that noise levels do not reach a level at any location to be considered significant.
- 7.4.5 While noise levels are not considered significant in **Chapter 11: Human Health** of the ES [EN010142/APP/6.1], this new noise emission could be differentially felt by residents who may be more sensitive to noise and vibrations.
- 7.4.6 Disabled residents are most vulnerable to the adverse health effects of noise pollution and increased vibrations.
- 7.4.7 When designing the operational stage of the Scheme, the Applicant has embedded mitigation measures within the design to reduce noise impacts.
- 7.4.8 Embedded mitigation measures which aim to reduce noise impacts during the Scheme's operation include:
- a. Plant selection (noise emissions will be one of the criteria evaluated when procuring equipment for use on the Ssite);
  - b. Design layout of elements within the Order limits to minimise noise at receptors;
  - c. Transformers may be standalone units or pre-assembled with inverters and switchgear to form a single contained unit;
- 7.4.9 Additional mitigation measures
- 7.4.10 Additional mitigation measures may be incorporated through the detailed Operational Environment Management Plan that will build upon the **Framework OEMP [EN010142/APP/7.9]** submitted alongside the DCO application.
- 7.4.11 The Applicant has engaged with residents with regards to noise impacts, including on mitigation measures and the ongoing design of the Scheme to address concerns related to the effect of noise impacts on residents.
- 7.4.12 While any increased noise has the potential to have a differential effect on groups with protected characteristics who are more sensitive to noise, the mitigation measures embedded in the design will avoid noise levels going above current background levels which should avoid this effect.

### **Positive: Contribution to tackling climate change**

- 7.4.13 The Scheme will contribute to the UK's transition to increased renewable energy generation which may reduce the impacts of climate change.
- 7.4.14 People who share protected characteristics are more vulnerable to the impacts of climate change, including:

- a. More variable and extreme weather to the spread of pests and diseases. Extreme weather events, for example heatwaves, have disproportionate negative effects on some protected characteristic groups, for example elderly people (Ref 35).
  - b. Increased risk of flooding – with climate change likely to alter rainfall patterns and bring more heavy downpours, flood risk is expected to increase in the future. For some disabled people and their carers, the risk of flooding poses a disproportionate threat compared to the rest of society as they face greater obstacles in preparing and responding to flood events (Ref 36).
  - c. Health and well-being – A warming climate could affect patterns of disease and other health issues. There is emerging evidence of the negative impacts on mental wellbeing amongst children associated with the increasing awareness surrounding climate change (Ref 37).
- 7.4.15 As set out in **Chapter 7: Climate Change** of the ES [EN010142/APP/6.1] renewable energy generation from the Scheme is expected to be 866,394 MWh during the first year of operation and is expected to generate 751,022 MWh in the final year of operation.
- 7.4.16 The construction period is expected to take around two years (2025-2027) and annual emissions from the construction of the Scheme are determined to represent a minor adverse impact.
- 7.4.17 Due to the renewable energy generation of the Scheme, once operational, the impact is considered to be a significant beneficial effect.
- 7.4.18 There may be positive effects of the Scheme on protected characteristic groups who are more vulnerable to the impacts of climate change, such as older people and disabled people, as it contributes to the UK's transition to renewable energy.

## 7.5 Decommissioning

### **Negative: Increased noise, vibration and air pollution during decommissioning**

- 7.5.1 It is assumed that that the noise, vibration and air quality impacts during the decommissioning phase will generate similar effects to those anticipated during construction.
- 7.5.2 As outlined in **Chapter 13: Noise and Vibration** of the ES [EN010142/APP/6.1], the noise levels of decommissioning are not considered to be significant.
- 7.5.3 Vibrations may also be caused during decommissioning but the duration will be short (less than a day) and prior warning on the timings and durations will be provided.
- 7.5.4 **Chapter 6: Air Quality** of the ES [EN010142/APP/6.1] highlights that the decommissioning process is due to be shorter in duration than the construction process and therefore impacts on local air quality as a result of

dust generation will be short-term and temporary and are not considered significant.

7.5.5 As established in the **Framework DEMP [EN010142/APP/7.10]** submitted alongside the DCO application, measures will be undertaken to mitigate the negative effects of noise, vibration and air quality during decommissioning.

7.5.6 Whilst not considered to be significant, these impacts during decommissioning may have a differential impact on particular groups with protected characteristics: children, older people, disabled people and pregnant people.

### **Positive: Increased employment during decommissioning**

7.5.7 Following the end of the operational phase, the Scheme will likely be shut down and the infrastructure will be removed. It is likely that during the decommissioning phase, a similar number of jobs will be required as during the construction.

7.5.8 According to the **Chapter 14: Socio-economics and Land Use** of the ES **[EN010142/APP/6.1]**, it is assumed that a similar number of jobs required for constructing the Scheme will be needed to carry out the activities required to remove the infrastructure from the Order limits.

7.5.9 However, due to the long-term nature of the Scheme, it is difficult to assess future levels of deprivation and the impact of employment opportunities on protected characteristic groups.

7.5.10 Increased employment during the decommissioning phase may have a positive effect on groups with protected characteristics overrepresented in unemployment statistics such as young people, ethnic minorities, women and disabled people.

### **Negative: Increased traffic on local roads during decommissioning**

7.5.11 As outlined in **Chapter 16: Transport and Access** of the ES **[EN010142/APP/6.1]**, the effects of the decommissioning phase are likely to be similar to those during construction. This will involve increased travel from on-site staff and an increased number of HGVs.

7.5.12 As discussed under construction impacts, increased traffic movements on local road networks may have the negative impact of increased congestion. Increased congestion on the roads may particularly impact those with mobility issues and people using pushchairs in relation to safety and confidence.

7.5.13 The **Framework DEMP [EN010142/APP/7.10]** submitted alongside the DCO application has been devised to mitigate negative impacts. This involves setting working hours of 07:00-19:00 for on-site staff to restrict travel the site outside of the network peak hours, utilising the existing site accesses along the A631 and B1398 to the Principal Site, encouraging construction staff to car share and utilise the internal shuttle service.

- 7.5.14 The mitigation methods set out in the **Framework DEMP [EN010142/APP/7.10]** submitted alongside the DCO application would reduce some of the negative impacts associated with increased traffic during the decommissioning phase.
- 7.5.15 During decommissioning, whilst not considered to be significant, there is potential for negative effects on protected characteristic groups associated with increased traffic movements on the local road network.

## 7.6 Summary of impacts

- 7.6.1 **Table 7-1** provides a summary of the potential consultation, construction, operation and decommissioning equality effects of the Scheme. This provides an assessment of groups with protected characteristics who are likely to be disproportionately or differentially affected by each of the impacts. As defined in **Section 2** of this report:
- a. A disproportionate equality effect arises when an impact has a proportionately greater effect on protected characteristics groups than on the general population overall at a particular location.
  - b. A differential equality effect is one which affects members of a protected characteristic group different from the rest of the general population because of specific needs, or a recognised vulnerability associated with their protected characteristic.
- 7.6.2 In some cases, protected characteristic groups can be subject to both disproportionate and differential equality effects.
- 7.6.3 **Table 7-1** also provides a brief overview of the planned mitigation measures to minimise adverse effects as well as activities to be put into place to enhance opportunities resulting from beneficial impacts. It is envisaged that this table will be used to monitor equality effects as the Scheme development progresses.

**Table 7-1: Summary of potential equality impacts of the Scheme**

Impact	Disproportionately/ Differentially Affected Protected Characteristic Groups											Overview of Potential Effects	Planned Mitigation/ Actions to enhance benefit		
	Age	Children	Young People	Older People	Sex	Ethnicity	Religion	Disability	Transgender	Sexual Orientation	Pregnancy/ Maternity			Marriage and civil partnership <sup>10</sup>	
<b>Consultation</b>															
<b>Positive</b>		Inclusive community consultation	✓	✓	✓	✓	✓			✓				All groups including those with protected characteristics who are traditionally under-represented have been targeted through engagement. This includes older people and disabled people.	<u>Action to enhance benefit:</u> Ongoing engagement outside of statutory consultation with stakeholders with protected characteristics.  Administering a Community Benefit Fund.
<b>Construction</b>															
<b>Positive</b>		Temporary employment and employability during construction	✓		✓	✓	✓							During the construction period, the Scheme would generate 914 net jobs per annum, 138 of which could be sourced from the Study Area. This could be beneficial for LSOAs with high unemployment deprivation and for groups overrepresented in unemployment figures (young people, disabled people, ethnic minorities and	<u>Actions to enhance benefit include (but are not limited to):</u>  In line with the <b>FSSCEP [EN010142/APP/7.18]</b> submitted alongside the DCO application, the Applicant:

<sup>10</sup> while marriage and civil partnership is a protected characteristic under the Equality Act, it is not covered by the PSED in relation to its aims of advancing equality of opportunity and fostering good relations. This means that it is unlawful to discriminate, harass or victimise someone due to their marriage or civil partnership status, however public authorities do not have to have due regard to the matters set out in 2.3 in relation to this protected characteristic.

**Disproportionately/ Differentially Affected Protected Characteristic Groups**

Impact	Age	Children	Young People	Older People	Sex	Ethnicity	Religion	Disability	Transgender	Sexual Orientation	Pregnancy/ Maternity	Marriage and civil partnership <sup>10</sup>	Overview of Potential Effects	Planned Mitigation/ Actions to enhance benefit
													women) and under-represented in the construction industry.	<ul style="list-style-type: none"> <li>• Will consider a programme to promote apprenticeships;</li> <li>• Investigate a programme of activities to promote STEM education and careers;</li> <li>• Follow a sustainable sourcing and equality policy;</li> <li>• Require all contractors to comply with diversity and inclusion standards and report metrics on workforce diversity; and</li> <li>• Administer a Community Benefits Fund which could support employability and skills support.</li> </ul>

**Disproportionately/ Differentially Affected Protected Characteristic Groups**

Impact	Age											Overview of Potential Effects	Planned Mitigation/ Actions to enhance benefit
	Children	Young People	Older People	Sex	Ethnicity	Religion	Disability	Transgender	Sexual Orientation	Pregnancy/ Maternity	Marriage and civil partnership <sup>10</sup>		
<b>Negative</b> Increased traffic on local roads during construction	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Children, older people, disabled people, and pregnant women can be more vulnerable to the negative impacts of increased traffic flows, including road safety concerns, which can particularly be caused by large vehicles such as HGVs.	<u>Planned mitigation:</u> Implementation of the <b>Framework CEMP [EN010142/APP/7.8]</b> and <b>Framework CTMP [EN010142/APP/7.11]</b> submitted alongside the DCO application, including plans to limit HGV routes and times and manage traffic and encourage the use of the shuttle service to discourage single vehicle journeys.
<b>Negative</b> Increased noise and vibration during construction	✓	✓	✓				✓				✓	Older people, disabled people and pregnant people may be more vulnerable to noise exposure due to physiological and psychological vulnerabilities, as well as potentially spending more time at home than the population overall.	<u>Planned mitigation:</u> Implementation of the <b>Framework CEMP [EN010142/APP/7.8]</b> submitted alongside the DCO application.
<b>Negative</b> Increased air pollution during construction.	✓		✓				✓				✓	Children, older people, disabled people and pregnant people are more vulnerable to the effects of	<u>Planned mitigation:</u> Implementation of the <b>Framework CEMP [EN010142/APP/7.8]</b> submitte

**Disproportionately/ Differentially Affected Protected Characteristic Groups**

Impact	Age											Overview of Potential Effects	Planned Mitigation/ Actions to enhance benefit
	Children	Young People	Older People	Sex	Ethnicity	Religion	Disability	Transgender	Sexual Orientation	Pregnancy/ Maternity	Marriage and civil partnership <sup>10</sup>		
												decreased air quality, than the population overall.	d alongside the DCO application.
<b>Operation</b>													
Increased noise levels during operation.	✓	✓	✓			✓			✓			While noise levels are not considered significant, the impact of any increased noise could be differentially felt by local disabled residents who may be more sensitive to noise.	<u>Planned mitigation:</u> Embedded mitigation measures during the Scheme's operation include: <ul style="list-style-type: none"> <li>• Plant selection (noise emissions will be one of the criteria evaluated when procuring equipment for use on the site);</li> <li>• Design layout of elements within the Order limits to minimise noise at receptors;</li> <li>• Transformers may be standalone units or pre-assembled with inverters and switchgear to form a single contained unit.</li> </ul>
<b>Negative</b>													



**Disproportionately/ Differentially Affected Protected Characteristic Groups**

Impact	Age											Overview of Potential Effects	Planned Mitigation/ Actions to enhance benefit
	Children	Young People	Older People	Sex	Ethnicity	Religion	Disability	Transgender	Sexual Orientation	Pregnancy/ Maternity	Marriage and civil partnership <sup>10</sup>		
<p><b>Positive</b></p> <p>Contribution to tackling climate change</p>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	<p>Those from some protected characteristic groups are disproportionately at risk from the negative effects of climate change. Therefore, the positive contribution of the Scheme to the climate is likely to have a positive impact on all groups.</p>	<ul style="list-style-type: none"> <li>Positioning of noise-emitting equipment away from sensitive receptors; and</li> <li>Implementation of the <b>Framework OEMP [EN010142/APP/7.9]</b> submitted alongside the DCO application.</li> </ul> <p><u>Action to enhance benefit:</u> Maintenance activities and replacement of degraded PV Panels to maintain performance.</p>
<p><b>Negative</b></p> <p>Increased noise, vibrations and air pollution during decommissioning</p>	✓	✓	✓			✓				✓	<p>Older people, children and young people, disabled people and pregnant people may also be more vulnerable to noise exposure due to physiological and psychological vulnerabilities, as</p>	<p><u>Planned mitigation:</u> Implementation of the <b>Framework DEMP [EN010142/APP/7.10]</b> submitted alongside the DCO application.</p>	

**Disproportionately/ Differentially Affected Protected Characteristic Groups**

Impact	Age											Overview of Potential Effects	Planned Mitigation/ Actions to enhance benefit
	Children	Young People	Older People	Sex	Ethnicity	Religion	Disability	Transgender	Sexual Orientation	Pregnancy/ Maternity	Marriage and civil partnership <sup>10</sup>		
decommissioning												well as potentially spending more time at home than the population overall.	
Increased employment during decommissioning		✓	✓	✓	✓							Young people, disabled people, women and some ethnic minority groups who experience disproportionately higher levels of unemployment may experience positive effects of employment opportunities and skills and training development.	<p><u>Actions to enhance benefit include (but are not limited to):</u></p> <p>In line with the <b>FSSCEP [EN010142/APP/7.18]</b> submitted alongside the DCO application, the Applicant:</p> <ul style="list-style-type: none"> <li>• Will consider a programme to promote apprenticeships;</li> <li>• Investigate a programme of activities to promote STEM education and careers;</li> <li>• Follow a sustainable sourcing and equality policy; and</li> <li>• Require all contractors to comply with diversity and</li> </ul>
<b>Positive</b>													

**Disproportionately/ Differentially Affected Protected Characteristic Groups**

Impact	Age											Overview of Potential Effects	Planned Mitigation/ Actions to enhance benefit	
	Children	Young People	Older People	Sex	Ethnicity	Religion	Disability	Transgender	Sexual Orientation	Pregnancy/ Maternity	Marriage and civil partnership <sup>10</sup>			
<b>Negative</b> Increased traffic movements on local road network during decommissioning	✓	✓			✓		✓					✓	Children, older people, disabled people, and pregnant women can be more vulnerable to the negative impacts of increased traffic flows, including road safety concerns and worsened air quality, both of which can particularly be caused by large vehicles such as HGVs.	inclusion standards and report metrics on workforce diversity.  <u>Planned mitigation:</u> Implementation of the <b>Framework DEMP [EN010142/APP/7.10]</b> submitted alongside the DCO application.

## 8. Conclusions

- 8.1.1 This EqIA has identified the potential impacts of the Scheme which may affect protected characteristic groups. This section summarises key impacts and the mitigation measures that have been planned in line with the three aims of the Public Sector Equality Duty (PSED).

### **PSED Aim 1: To eliminate unlawful discrimination, harassment and victimisation, and other conduct prohibited by the Act**

- 8.1.2 No direct discrimination, harassment and victimisation of any protected characteristic group has been identified as a result of the Scheme.
- 8.1.3 However, there is potential for the Scheme to result in disadvantage for some protected groups through the following:
- a. Increased noise levels, air quality and traffic impacts for residents during construction and decommissioning, and increased noise impacts during operation. This could have a differential effect on those who are more sensitive to these impacts such as disabled people, older people and children. However, the Applicant will mitigate any potential issues through the measures specified in the **Framework CEMP [EN010142/APP/7.8]**, **Framework CTMP [EN010142/APP/7.11]**, **Framework OEMP [EN010142/APP/7.9]** and **Framework DEMP [EN010142/APP/7.10]** submitted alongside the DCO application and Scheme design.

### **PSED Aim 2: To advance equality of opportunity between people who share a protected characteristic and those who do not**

- 8.1.4 The EqIA has highlighted several benefits of the Scheme that would help to reduce inequalities and advance equality of opportunity between people who share a protected characteristic and those who do not, as follows:
- a. The construction and decommissioning of the Scheme could provide employment opportunities for the local community. This could have a positive impact on groups overrepresented in unemployment figures, such as disabled people and young people.
  - b. The benefits of a transition to increased renewable energy will bring positive impacts for groups who are most vulnerable to climate change and pollution. This may benefit disabled people and younger people.

### **PSED Aim 3: To foster good relations between people who share a protected characteristic and those who do not**

- 8.1.5 The EqlA has highlighted how the Scheme can help to foster good relations between people who share a protected characteristic and those who do not, for example:
- a. Inclusive public engagement using a range of communication methods has been undertaken and will continue to be undertaken as the Scheme develops.
  - b. Consultation and engagement processes have been designed to reach as many people as possible within the areas in the vicinity of the Scheme.
  - c. A range of “seldom-heard” and “under-represented” groups were directly invited to contribute to the consultation process.

## 9. References

- Ref 1 UK Government (2010) Equality Act 2010
- Ref 2 Equality and Human Rights Commission (2023). Technical guidance on the Public Sector Equality Duty: England
- Ref 3 UK Government (1998) Human Rights Act 1998
- Ref 4 UK Government (2008) The Planning Act 2008
- Ref 5 Applications: Prescribed Forms and Procedure) Regulations 2009
- Ref 6 Department for Business, Energy and Industrial Strategy (2023) Overarching National Policy Statement for Energy (EN-1)
- Ref 7 Department for Energy Security & Net Zero (2023) National Policy Statement for Renewable Energy Infrastructure (EN-3)
- Ref 8 Department for Levelling Up, Housing and Communities (2023) National Planning Policy Framework (NPPF)
- Ref 9 Central Lincolnshire Joint Strategic Planning Committee (2023) Central Lincolnshire Local Plan
- Ref 10 West Lindsey District Council (2020) West Lindsey Equality Strategy 2020-2024
- Ref 11 Lincolnshire County Council (2022) Joint Health and Wellbeing Strategy for Lincolnshire
- Ref 12 ONS: Census 2001: Usual Resident Population (KS001); Census 2011: Population Density 2011 (QS102EW); Census 2021: Number of Usual Residents in Households and Communal Establishments (TS001)
- Ref 13 ONS (2021). Age by Single Year (TS007); Age by Five-Year Age Bands (TS007A)
- Ref 14 ONS: Census 2021: Disability (TS038)
- Ref 15 ONS: Census 2021: Gender identity (TS078)
- Ref 16 ONS: Census 2021: Legal partnership status (TS002)
- Ref 17 Office for Health Improvement & Disparities. Local Health – Small Area Public Health Data (2023)
- Ref 18 ONS: Census 2021: Ethnic group (TS021)
- Ref 19 ONS: Census 2021: Religion (TS030)
- Ref 20 ONS: Census 2021: Sex (TS008)
- Ref 21 ONS: Census 2021: Sexual Orientation (detailed) (TS079)
- Ref 22 Indices of Deprivation 2015 and 2019 (2019) Mapping
- Ref 23 ONS: Census 2021: Economic Activity Status (TS066)
- Ref 24 ONS: Census 2021: General Health (TS037)
- Ref 25 ONS: Census 2021 Tenure (TS054)
- Ref 26 ONS (2022) Annual Personal Well-Being Estimates
- Ref 27 Tillbridge Solar (2022) [REDACTED]
- Ref 28 Tillbridge Solar: Statement of Community Consultation. Available at [Tillbridge-Solar-Final-SoCC\\_May-2023.pdf](https://tillbridgesolar.com/Tillbridge-Solar-Final-SoCC_May-2023.pdf) (tillbridgesolar.com) (accessed 18th January 2024)
- Ref 29 Halonen, J. et al (2015). Road Traffic noise is associated with increased cardiovascular morbidity and mortality in London. *European Heart Journal*. 36(39), 2653-2661
- Ref 30 Women’s Budget Group (2019) Public Transport and Gender, Available at: <https://wbg.org.uk/wp-content/uploads/2019/10/TRANSPORT-2019-1.pdf>
- Ref 31 Natural England (2021) The People and Nature Survey for England: Adult Data Y1Q1 (April – June 2020) (Experimental Statistics)

- Ref 32 Mucci, N. et al., (2020) Urban Noise and Psychological Distress: A Systematic review
- Ref 33 Simoni, M. et al., (2015) Adverse effects of outdoor pollution in the elderly
- Ref 34 Howel, G. et al (2015) Autism and the effect of introducing a new noise source into quiet rural communities: risk factor from industrial wind power generation
- Ref 35 University of York (2023) Researchers seek views of how extreme weather affects older people
- Ref 36 United Nations Office for Disaster Risk Reduction – Prevention Web (2022) Homeless and looking for help – why people with disability and their carers fare worse after floods
- Ref 37 Martin, G. et al., (2021) Review: The impact of climate change awareness on children’s mental well-being and negative emotions – a scoping review
- Ref 38 Department for Energy Security & Net Zero (2023) National Policy Statement for Electricity Networks Infrastructure (EN-5)
- Ref 39 Bassetlaw District Council (2017) Adopted Bassetlaw Core Strategy
- Ref 40 Bassetlaw District Council (2023) Draft Bassetlaw Local Plan Main Modifications.