

Gate Burton Energy Park Equality Impact Assessment

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September 2023

Rule 8(1)(b)
The Infrastructure Planning (Examination Procedure) Rules 2010
Planning Act 2008

Prepared for:

Gate Burton Energy Park Limited

Prepared by:

AECOM Limited

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1. Introduction

1.1 Purpose

- 1.1.1 This Equality Impact Assessment (“EqIA”) has been prepared by AECOM Ltd (“AECOM”) on behalf of Gate Burton Energy Park Limited (“The Applicant”). It supports an application for a Development Consent Order (“DCO”) for the construction, operation 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 (Ref 1-1) as being subject to the Public Sector Equality Duty (“PSED”), the Act’s s149(2) 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”) and therefore requires an application for a DCO to be submitted to the Planning Inspectorate for determination by the Secretary of State (“Secretary of State”). The Secretary of State is a public authority to which the PSED applies, as prescribed in Schedule 18 of the Equality Act 2010.
- 1.1.4 This EqIA is being submitted as part of a range of supplementary documents that support the Application, following the Examining Authority’s written questions and requests for information (ExQ1), in response to question Q1.1.7 [PD-006]. The ExQ1 were issued on 12 July 2023 and this EqIA is being submitted at Deadline 3 of the Examination on 1 September 2023.
- 1.1.5 This EqIA demonstrates the Applicant’s commitment to consider the interests of people who share protected characteristics, as defined by Equality Act 2010 (Ref 1-1) and set out in Section 2.3. 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 Equality Act 2010 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 policy and legislation review, an overview of the Scheme, 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 Equality Act 2010 and outlined under Section 2.3. This EqIA provides a consideration of potential direct and indirect equality impacts (both adverse and beneficial) associated with the construction, operational, and decommissioning phases of the Scheme. The approach draws on evidence from the Environmental Statement, 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 Gate Burton Energy Park is a proposed solar farm with energy storage, which will generate and store electricity generated from renewable sources for export to the NETS. The Scheme will comprise the construction, operation, maintenance and decommissioning of a solar photovoltaic (PV) electricity generating facility with a total capacity exceeding 50 megawatts (MW), an energy storage facility and an export/import connection to the NETS. The Scheme will be located within the “Order limits” which straddle the counties of Lincolnshire and Nottinghamshire and is the subject of the DCO Application submitted in January 2023.
- 1.2.2 The Scheme will be connected to the NETS via a Point of Connection (PoC) at Cottam 400kV Substation, located approximately 7.5km from the Solar and Energy Storage Park. The PoC, which formerly was utilised by a 2GW coal fired power station, provides a connection solution which minimises the above or below ground transmission infrastructure required to export the power generated to customers in Lincolnshire, Nottinghamshire and nationally.
- 1.2.3 The need for the Scheme arises from and is built upon its contribution to national policy aims of decarbonisation:
- Net Zero and the importance of deploying zero-carbon generation assets at scale;
 - Security of supply (geographically and technologically diverse supplies);
 - Affordability.
- 1.2.4 The construction, operation and decommissioning of the Scheme has the potential to impact the environment and the lives of local residents, including those with protected characteristics.
- 1.2.5 Details outlining the need and objectives of the Scheme are included in the **Statement of Need [APP-004]**.

1.3 Report Structure

- 1.3.1 Following on from this introduction section, the remainder of the report is structured as follows:
- **Section 2: Methodology** – setting out the approach to collecting evidence and assessment of impacts;
 - **Section 3: Policy and legislation review** – providing context through review of relevant national and regional policy and legislation associated with equalities, planning, and other relevant topics;
 - **Section 4: Summary of the Scheme** – an overview of the Scheme;
 - **Section 5: Equalities baseline** – uses secondary data sources, such as Census 2021 data, to form an understanding of residents living within the area;
 - **Section 6: Consultation and engagement activities** – provides an overview of consultation and engagement activities undertaken thus far including key responses from affected stakeholders;

- 1.3.2 **Section 7: Assessment of potential equality effects** – provides an assessment of impacts and equality effects of the proposals using the evidence gathered; and
- 1.3.3 **Section 8: Conclusions and next steps** – conclusion of equality impacts and the Applicant’s due regard to the PSED. This section also contains continued actions recommended for enhancing positive equality impacts and minimising potential negative impacts 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 potential direct and indirect equality impacts (both adverse and beneficial) associated with the construction, operational, and decommissioning phases of the Scheme.
- 2.1.2 The approach for undertaking this EqlA and compiling this report follows a three-stage process as follows:
- 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;
 - Appraisal of potential impacts - informed by a consideration of the policy context, consultation responses, equalities baseline data; and
 - Providing recommendations and conclusions.
- 2.1.3 The approach is based on AECOM's 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 2-1) as well as AECOM's in-house approach to conducting EqlAs.

2.2 Desk-Based Review

- 2.2.1 In addition to a review of recent relevant national, regional and local policies and legislation, the desk-based review included the following:
- Review of all relevant documentation regarding the DCO application including design information, relevant assessment work and mitigation and management plans;
 - Review of national and local datasets to develop an equalities baseline profile of groups with protected characteristics within and surrounding the site including Census 2021 data; and
 - Review of the consultation and engagement activities to date in relation to the proposals undertaken by the Applicant to identify any issues of relevance to this EqlA.

2.3 Assessment of Impacts

- 2.3.1 The assessment of equality impacts takes into account the information gathered through the above activities. A judgement is made as to how the Scheme would contribute to the realisation of effects for people with protected characteristics as defined in the Equality Act 2010. These protected characteristics are:
- **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+), the elderly/very old (i.e., those aged 85+);

- **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 carry out normal day-to-day activities. It can also include people who have progressive conditions such as HIV, cancer, or multiple sclerosis (MS) - even where someone is able to carry out day to day activities;
- **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;
- **Marriage and civil partnership:** marriage or civil partnership can be between a man and a woman or between two people of the same sex;
- **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;
- **Race:** Equality Act 2010 defines race as encompassing colour, nationality (including citizenship) and ethnic or national origins;
- **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;
- **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;
- **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 The assessment considers both disproportionate and differential impacts on groups with protected characteristics. A disproportionate equality effect arises when an impact has a proportionately greater effect on protected characteristic groups than on the general population overall at a particular location. For the purposes of this EqIA, disproportionality arises:

- where an impact is predicted for the study area, where protected characteristic groups are known to make up a greater proportion of the affected resident population than their representation in the Study Area or England; or
- where an impact is predicted on a community resource which is predominantly or heavily used by protected characteristic groups (e.g., primary schools attended by children; care homes catering for elderly people).

2.3.3 A differential equality effect is one which affects members of a protected characteristic group differently from the rest of the general population because of specific needs, or a recognised vulnerability associated with their protected characteristic.

2.3.4 In some cases, protected characteristic groups are subject to both disproportionate and differential equality effects. The EqIA considers impacts on groups of people and not those on specific individuals.

2.3.5 The criteria used to determine disproportionate or differential impacts with respect to protected characteristics groups include:

- People who share a protected characteristic form a disproportionately large number of those adversely affected by the proposals;
- Amongst the population affected by the proposals, people who share protected characteristics are particularly vulnerable or sensitive to a possible impact in relation to their possessing a specific protected characteristic;
- The proposals may either worsen or improve existing disadvantage (e.g., housing deprivation or economic disadvantage) affecting people who share a protected characteristic;
- People with shared protected characteristics amongst the affected population may not have an equal share in the benefits arising from the proposals. This can be either due to direct or indirect discrimination or where the groups experience particular barriers to realising such benefits, unless suitable mitigations are proposed to overcome those barriers; and
- The proposals may worsen existing community cohesion amongst the affected local population or exacerbate conflicts with community cohesion policy objectives.

2.3.6 This approach allows a qualitative positive or negative impact to be assigned, with all effects captured in the summary of impacts.

2.3.7 Steps which have been included by the Applicant to mitigate negative impacts are also captured, to demonstrate where due regard has been paid to the needs of the groups impacted.

2.4 Conclusion and Next Steps

2.4.1 The concluding section of this report sets out conclusions on the equality impacts as well as setting out recommendations for mitigating against any adverse impacts and opportunities for enhancing equality of opportunity.

3. Policy and Legislative Context

3.1 Legislation

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

- 3.1.1 The Equality Act 2010 (Ref 1-1) 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.
- 3.1.2 Those subject to the PSED must, in the exercise of their functions, have due regard to the need to:
- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010;
 - Advance equality of opportunity between people who share a protected characteristic and those who do not; and
 - Foster good relations between people who share a protected characteristic and those who do not.
- 3.1.3 These are sometimes referred to as the three aims or arms of the PSED. Section 149(3) of the Equality Act 2010 explains that having due regard for advancing equality involves:
- Removing or minimising disadvantages suffered by people due to their protected characteristics;
 - Taking steps to meet the needs of people from protected groups where these are different from the needs of other people; and
 - Encouraging people from protected characteristics groups to participate in public life or in other activities where their participation is disproportionately low.
- 3.1.4 The Equality Act 2010 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)).
- 3.1.5 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.
- 3.1.6 Therefore, 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 Section 2.3 above in relation to this protected characteristic.

Human Rights Act 1998

- 3.1.7 The Human Rights Act 1998 (Ref 3-1) 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.
- 3.1.8 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.
- 3.1.9 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

- 3.1.10 The Planning Act 2008 ("the 2008 Act") (Ref 3-2) 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 2008 Act, 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 further setting out application requirements.
- 3.1.11 Section 104 of the 2008 Act requires the Secretary of State, when determining DCOs, to have regard to the provisions of National Policy Statements ("NPSs") where relevant. NPSs are produced by the UK Government and comprise the Government's objectives for the development of NSIPs.
- 3.1.12 The 2008 Act 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.

3.2 National Policy

National Planning Policy Framework (July 2021)

- 3.2.1 The National Planning Policy Framework ("NPPF") (Ref 3-3) was originally published in March 2012, with revisions in July 2018, February 2019 and most recently in July 2021. The NPPF reconsolidates the economic, social and environmental objectives of the Government's planning system. 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.
- 3.2.2 Paragraph 5 of the NPPF states that whilst it does not contain specific policies for NSIPs, it may be considered as 'important and relevant' in the decision-making process in accordance with s104 of the 2008 Act. It sets out the Government's planning policies for England and how they should be applied.

At the heart of the NPPF is a presumption in favour of sustainable development and to deliver this, the framework sets out the Government's economic, environmental, and social planning policies for England and how these should be applied.

- 3.2.3 The NPPF identifies key principles that local planning authorities should ensure that they consider, including:
- Local strategies to improve health, social and cultural wellbeing for all;
 - The delivery of sufficient community and cultural facilities and services to meet local needs; and
 - The requirement to plan for the needs of different groups within communities, including how the size, type and tenure of housing should be assessed and reflected in planning policies.
- 3.2.4 Section 5 of the NPPF outlines how planning policy should deliver a sufficient supply of homes that meets the needs of groups with specific housing requirements. Local housing need assessments should inform the minimum number of homes needed and the size, type and tenure of housing should be assessed and reflected in local planning policies to accommodate different groups in the community, such as those who require affordable housing, families with children, older people and disabled people.
- 3.2.5 The Department for Levelling Up, Housing and Communities consulted on proposed changes to the NPPF between 22 December 2022 and 2 March 2023. It is expected that a new NPPF will be published in due course, but no substantive changes to the above provisions were proposed in the draft NPPF as part of the consultation process (Ref 3-4).

3.3 Regional Policy

Central Lincolnshire Local Plan

- 3.3.1 Central Lincolnshire Local Plan (Ref 3-5) 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.
- 3.3.2 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.

Draft Bassetlaw Local Plan (2021)

- 3.3.3 The Draft Bassetlaw Local Plan (Ref 3-6) is being produced to guide the District's spatial development up to 2037. It underwent an extensive consultation stage and is currently submitted to the Secretary of State for

Levelling Up, Housing and Communities for independent examination. Adoption of the full Local Plan is planned for Autumn 2023.

- 3.3.4 One of the strategic objectives of the draft Plan is to *“help reduce health inequalities by minimising locational disadvantage (...) and to reduce human exposure to environmental risks to achieve equitable outcomes for all.”* Additionally, it sets out that new developments are to help minimise the District’s health inequalities and provide improved access to *“safe, inclusive, high-quality”* infrastructure.

Bassetlaw Equality and Diversity Strategy 2021 – 2025

- 3.3.5 In the Equality and Diversity Strategy (Ref 3-7), Bassetlaw Council adopted a number of equality objectives covering the period 2021-2025. The objectives are to guide their approach to increasing opportunities across the district and improving the delivery and access to council services. The Strategy aids the council in fulfilling equality duties under Equality Act 2010 and supports the Local Plan.

- 3.3.6 Bassetlaw Council set the following objectives:

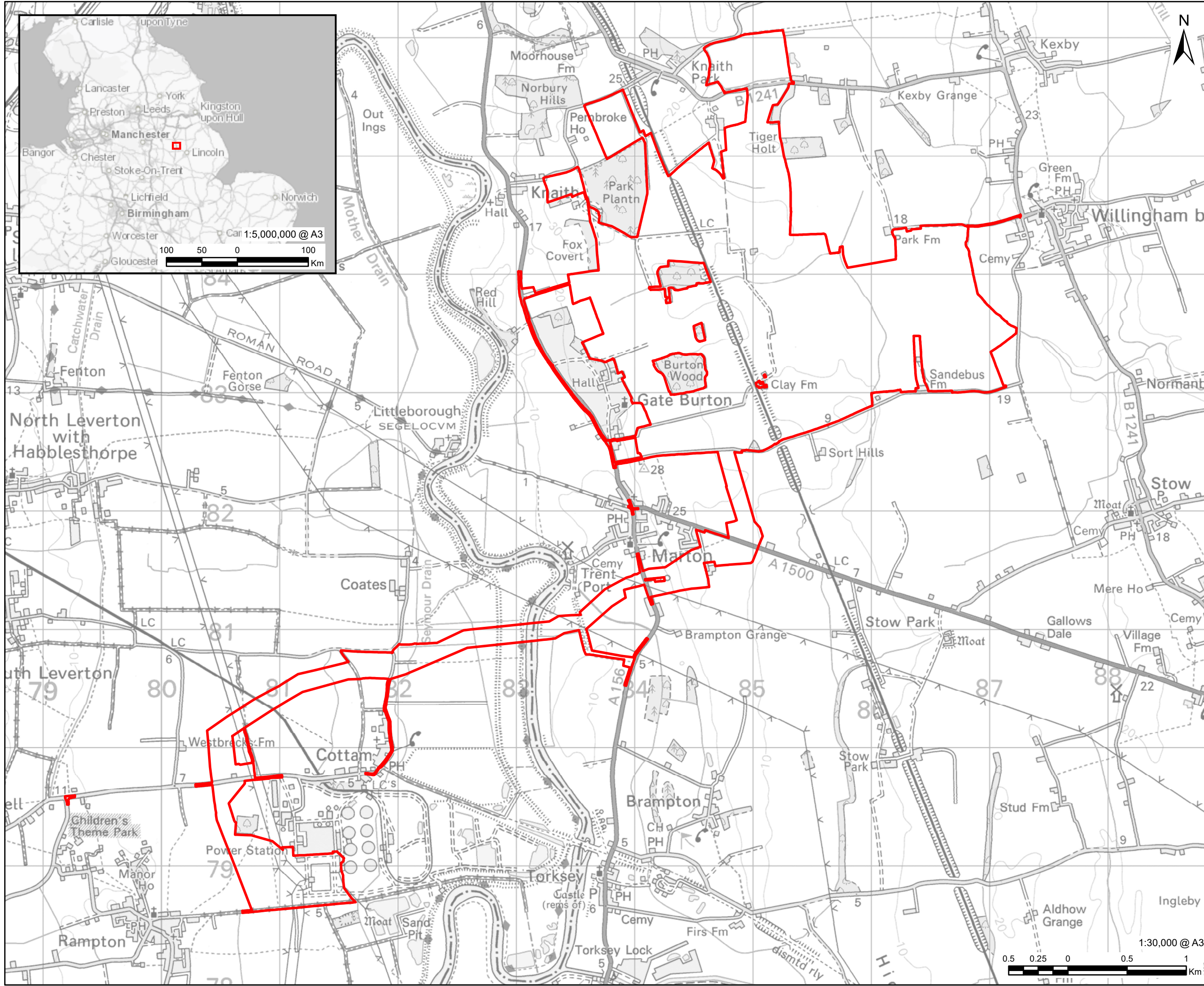
- Engage and communicate in appropriate and accessible ways;
- Ensure delivery of inclusive and responsive services;
- Foster good relations with and within the community;
- Break the cycle of inequality and improve life chances;
- Develop and support a diverse workforce.

4. Summary of the Scheme

4.1 Current Site and the Surrounding Area

- 4.1.1 The Order limits (also referred to as “the Site”) of the Scheme overlaps the boundary between Nottinghamshire and Lincolnshire counties, within the districts of Bassetlaw and West Lindsey. The Site boundaries are delineated in **Figure 4-1**. The Site comprises both Solar and Energy Storage Park and the Grid Connection Corridor.
- 4.1.2 The landscape of the Site is predominantly agricultural, with individual trees and woodlands, hedgerows, farm access tracks and local transport routes and is relatively sparsely populated. There are limited industrial or commercial land uses within the immediate vicinity of the Order limits. The A1500 (Stow Park Road/Till Bridge Lane) and A156 (Gainsborough Road) cross to the south and west, intersecting the Grid Connection Corridor, contrasting with the north-south alignment of the river Trent (crossed by the Grid Connection Corridor) and the railway line connecting Lincoln and Doncaster (which intersects the Solar and Energy Storage Park). The B1241 intersects the northern part of the Solar and Energy Storage Park, Marton Road and Willingham Road border the southern extent of the Solar and Energy Storage Park.
- 4.1.3 As highlighted in **Figure 4-2**, there is one PRoW crossing the Solar and Energy Storage Park, and three further PRoW which run near its boundary. PRoWs within the Grid Connection Corridor are limited to the northern side of Cottam Road and the western side of Town Street both near and through the village of Cottam, as well as both sides of Torksey Ferry Road within the village of Rampton. The study area highlighted is one used for **Environmental Statement Chapter 10: Landscape and Visual Amenity [REP2-010/3.1]**.

Figure 4-1 Scheme Location




PROJECT
Gate Burton Energy Park

CLIENT

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LEGEND
 Order Limits

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FIGURE TITLE
Scheme Location

FIGURE NUMBER
Figure 4-1

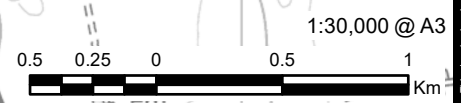
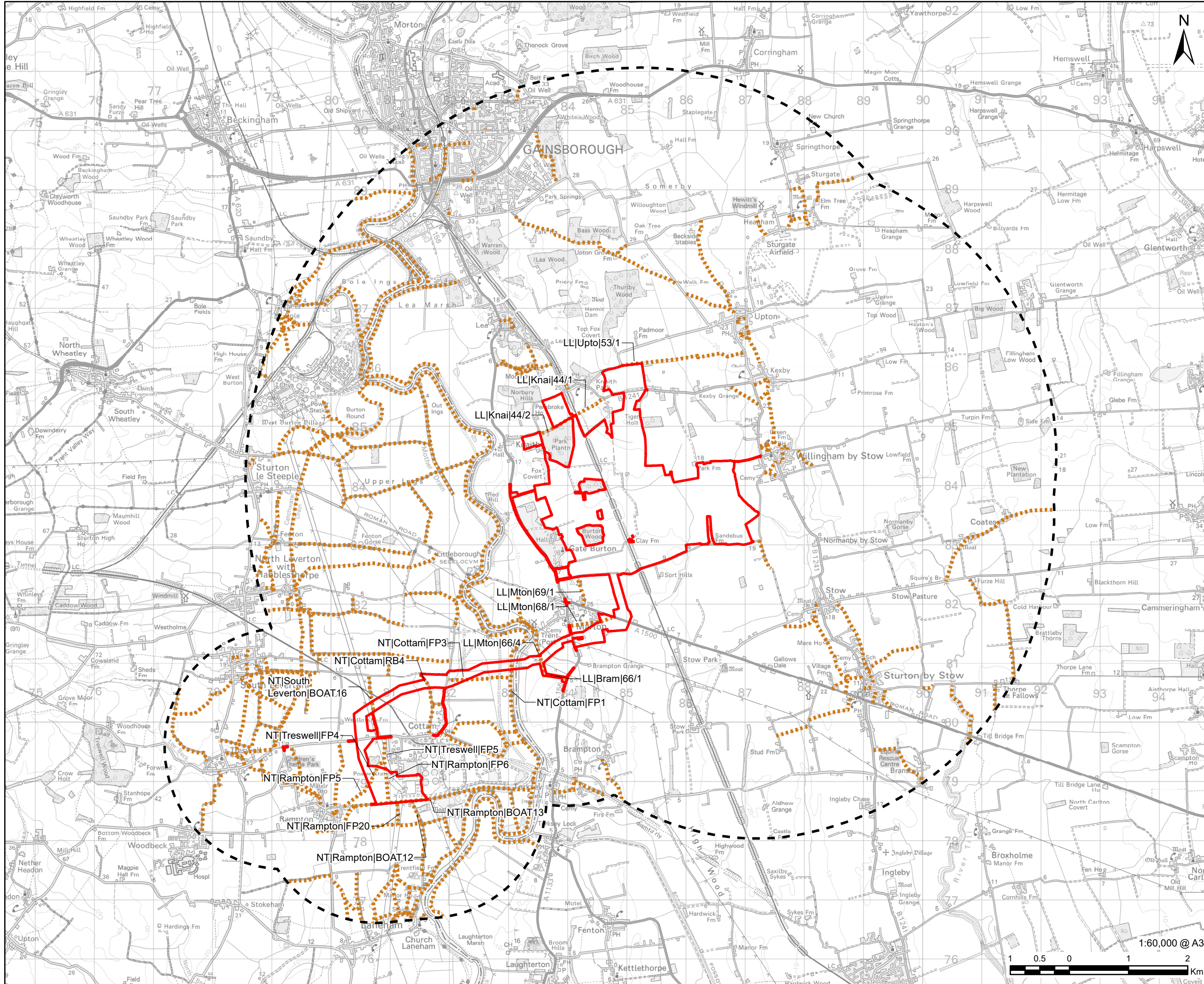


Figure 4-2 Public Rights of Way



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 Study Area
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FIGURE TITLE
 Public Rights of Way - Overview

FIGURE NUMBER
 Figure 4-2

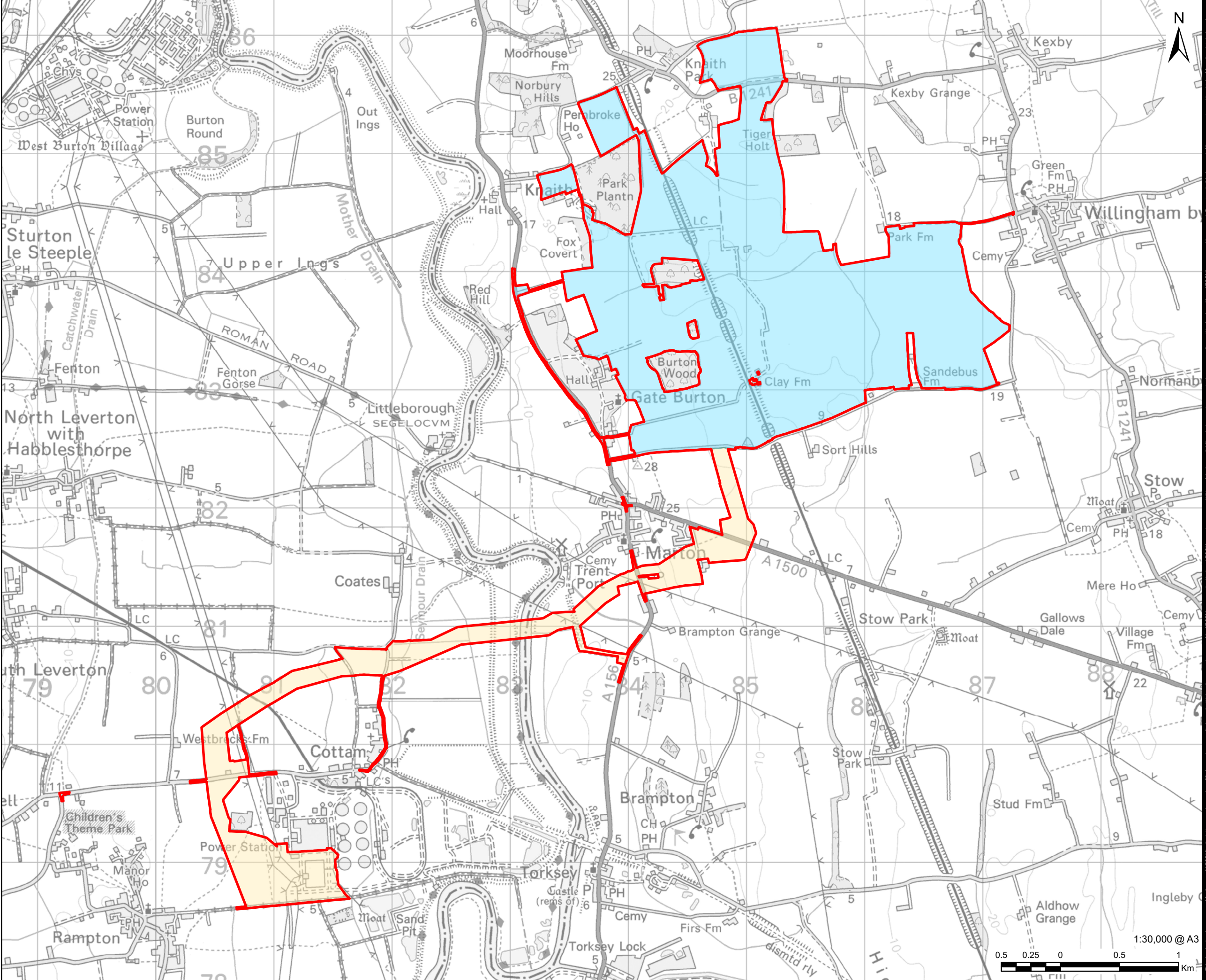
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- 4.1.4 There are two residential properties on Clay Lane within the Order Limits. Larger groups of residential properties include:
- Villages and settlements immediately surrounding the Solar and Energy Storage Park:
 - *Gate Burton approximately 50m to the west;*
 - *Knaith approximately 200m to the west;*
 - *Knaith Park to the north of the Site*
 - Villages and settlements in near proximity but not immediately surrounding the Solar and Energy Storage Park:
 - *Marton approximately 500m to the south west;*
 - *Willingham by Stow 700m to the east; and*
 - *Kexby 1.8km to the east*
- 4.1.5 The Grid Connection Corridor passes through largely agricultural land, to the immediate south and east of Marton, 400m to the north of Brampton in Lincolnshire, then 50m to the north of Cottam and 300m east of Rampton to connect with Cottam Power Station in Nottinghamshire.
- 4.1.6 There are a number of community and recreational facilities approximately 500m from the Order limits: churches in villages of Knaith, Gate Burton, Willingham; a village hall and a guest house in Marton; a public house in Willingham; Lea Fields Crematorium.
- 4.1.7 There are two GP surgeries close to the Scheme boundary: Marton Branch Surgery and Willingham-by-Stow Surgery, both located around 1km away. The nearest hospital is Lincoln County Hospital approximately 18km to the south east from the Site.

4.2 Proposed development

- 4.2.1 The Site comprises the Solar and Energy Storage Park (highlighted in blue) and the Grid Connection Corridor (highlighted in yellow), as shown in **Figure 4-3**:
- 4.2.2 The Scheme components include:
- PV tables (mounting structures) and panels;
 - Inverters;
 - Transformers;
 - An on-site Substation;
 - Onsite cabling;
 - A Battery and Energy Storage System (BESS);
 - An underground 7.5km 400kV electrical connection to the National Grid
 - Substation at Cottam Power Station;
 - Fencing and security measures;
 - Access tracks; and
 - Landscaping and biodiversity enhancement.

Figure 4-3 Scheme Boundary






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 Order Limits
 Solar and Energy Storage Park
 Grid Connection Corridor

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FIGURE TITLE
Scheme Boundary

FIGURE NUMBER
Figure 4-3

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4.3 Construction

4.3.1 Subject to being granted consent and following a final investment decision, construction is anticipated to start in Q1 2025 and will require an estimated 24 to 36 months, with operation therefore anticipated to commence around Q1 2028. Planned working hours are showcased in **Table 4-1** below.

Table 4-1: Planned construction working hours

Works	Working Hours
Summer	7AM – 7PM Monday to Friday; 9AM – 1PM Saturday
Winter	8AM – 6PM Monday to Friday; 9AM – 1PM Saturday

4.3.2 At the peak of construction, which is expected to be during 2026, it is estimated that a maximum of 400 workers will be required.

4.3.3 It is anticipated that as a worst case during the peak construction period, there would be up to 60 HGV deliveries (120 movements) per day. In addition, there would be an average of approximately 30 Light Goods Vehicles (LGV) (60 movements) per day. There would also be an additional 154 daily vehicles associated with staff/ shuttle services (equating to 308 daily movements) during peak construction periods.

4.4 Operational Activities

4.4.1 During the operational phase, activity on the Solar and Energy Storage Park will be limited and would be restricted principally to vegetation management, equipment maintenance and servicing, periodic replacement of components, periodic fence inspection, and monitoring to ensure the continued effective operation of the Scheme.

4.5 Decommissioning

4.5.1 The Scheme would be operational for 60 years, after which the Scheme would be decommissioned in line with Requirement 19 on the draft Development Consent Order **[REP2-027/6.1 and subsequent revisions]**.

4.5.2 Decommissioning is expected to take between 24 and 48 months and would be undertaken in phases. Removal of waste associated with decommissioning is estimated to require approximately 1,300 HGV loads over a period of 12 months, which equates to an average of eight loads per day.

5. Equalities Baseline

5.1 Introduction

5.1.1 A baseline profile of the population living in proximity of the Scheme is necessary to enable an assessment of the potential impacts the Scheme may have on groups with protected characteristics. The Scheme is located in areas administered by West Lindsey District Council and Bassetlaw District Council, both based in the East Midlands. The geographical areas chosen for this baseline follow the study area as outlined in **ES Volume 1 Chapter 14: Human Health and Wellbeing [APP-023/3.1]**.

5.1.2 This section outlines the equalities baseline relevant to the Scheme proposals. 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 three geographical levels relevant to the study area. These are, in increasing size:

- Rampton and Sturton wards in Bassetlaw District Council and Lea, Stow and Torksey wards in West Lindsey District Council which combined comprise the Study Area; or
- West Lindsey and Bassetlaw District Councils combined where ward-level data was not available;
- East Midlands region which provides a wider regional context; and
- England, to provide the fuller national context.

5.2 Protected characteristics

Population

5.2.1 According to the most recent data available, in 2021 the Study Area was home to 12,099 people. As detailed in Table 5-1 below, the geography experienced a population increase between 2001 and 2021 by 8%. The population in East Midlands and England experienced a stronger growth over the same period, by 15% and 13% respectively.

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

Year	Study Area	East Midlands	England
2001	11,166	4,172,174	49,138,831
2011	11,737	4,533,222	53,012,456
2021	12,099	4,880,054	56,490,048
% Change (2001 – 2021)	+8%	+15%	13%

Age

5.2.2 Table 5-2 presents the population breakdown in 2021 and 2020 across three geographical areas. In 2020, the Study Area had a higher population of children aged 0-15 (19.2% of general population) than England average (14.0%). The proportion of children in the Study Area was similar to regional geographies, 17.6% in combined West Lindsey and Bassetlaw area and 18.5% in East Midlands. Even though the proportion of children in the Study Area fell to 18.6% in 2021, it was still higher than and England's at 13.9%.

5.2.3 Notably, in 2021 the Study Area had a substantially higher proportion of people aged 65 and over than the national levels (30.2% of general population compared to 18.4% respectively). The proportion of older people decreased slightly between 2020 and 2021 across all geographies.

Table 5-2: Age breakdown (%) by geographical area, 2020 and 2021 (Ref 5-2)

Age range (years)	Study Area	West Lindsey and Bassetlaw	East Midlands	England
0-15	14.0	17.6	18.5	19.2
2020				
16-64	55.4	58.8	61.8	62.3
65 and over	30.6	23.6	19.6	18.5
0-15	13.9	17.1	18.1	18.6
2021				
16-64	55.9	59.4	62.4	63.0
65 and over	30.2	23.5	19.5	18.4

5.2.4 ONS (Ref 5-3) projects that by 2040, the proportion of population who are children in West Lindsey and Bassetlaw will increase by 2.5% compared to population levels in 2021. By comparison, the proportion of children is projected to increase by 3.6% in East Midlands and to decrease by 0.1% in England. Notably, the population aged 65 and over is projected to increase by 28.2% in West Lindsey and Bassetlaw within the same period, which is consistent with regional and national trends, where the same group will increase by 29.1% and 28.4% respectively. No population projections were available at the ward level.

Disability

5.2.5 The 2021 Census results show that 21.3% of the Study Area population have a disability that limits their day-to-day activities, compared to East Midlands and England figures that are both lower at 18.4% and 17.3% respectively – as seen in Table 5-3. The Study Area also has a higher proportion of people whose activities are limited a lot compared to other geographies: 8.8% compared to 7.7% in East Midlands and 7.3% nationally.

Table 5-3: Limiting long-term illness or disability (%) by geographical area, 2021 (Ref 5-4)

Level of disability	Study Area	East Midlands	England
Day-to-day activities limited a lot	8.8	7.7	7.3
Day-to-day activities limited a little	12.5	10.7	10
Long-term physical or mental health conditions but day-to-day activities not limited	8.2	7.1	6.8
No long-term physical or mental health conditions	70.4	74.6	75.9

Gender Reassignment

- 5.2.6 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.
- 5.2.7 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, while 0.3% identified with a different gender. The proportion of people identifying with a gender other than assigned at birth is in line with regional and national numbers (0.5% both in East Midlands and England).

Table 5-4: Gender identity (%) in West Lindsey and Bassetlaw, East Midlands, and England (Ref 5-5)

Gender identity	West Lindsey and Bassetlaw	East Midlands	England
Gender identity the same as sex registered at birth	94.5	93.4	93.5
Gender identity different from sex registered at birth but no specific identity given	0.1	0.2	0.2
Trans woman	0.1	0.1	0.1
Trans man	0.0	0.1	0.1
All other gender identities	0.1	0.1	0.1
Not answered	5.2	6.1	6.0

Marriage and Civil Partnership

5.2.8 Across all geographies, the minority of the population aged 16 and over has never married or entered a civil partnership. The combined West Lindsey and Bassetlaw level sits below other geographies, at 30.7% compared average 36.1% in East Midlands and 37.9% nationally having never married or entered a civil partnership. At the same time, West Lindsey and Bassetlaw have a higher proportion of people married (opposite sex), at 48.5% compared to 45.4% in the region and 44.2% in England.

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

Table 5-5: Legal partnership status (%) by geographical area, 2021 (Ref 5-6)

Legal partnership status	West Lindsey and Bassetlaw	East Midlands	England
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

Pregnancy and Maternity

5.2.10 As shown in Table 5-6, in 2011 9.1% of households in West Lindsey and Bassetlaw combined area were lone parent families, and 6.1% had dependent children, which is marginally lower than regional and national averages. In West Lindsey and Bassetlaw Census 2021 reported a slight increase in lone parent families (9.6%) as well as those with dependent children (6.3%). Whilst these increases are unlikely to be statistically significant, they are in line with the regional and national trend, where the proportions have also increased slightly.

Table 5-6 Lone parent families (%) of total households by geographical area, 2011 and 2021 (Ref 5-7)

Household composition	West Lindsey and Bassetlaw	East Midlands	England
2011 Lone parent family	9.1	9.9	10.6
2011 With dependent children	6.1	6.7	7.1
2021 Lone parent family	9.6	10.3	11.1

Household composition	West Lindsey and Bassetlaw	East Midlands	England
With dependent children	6.3	6.5	6.9

5.2.11 Data on general fertility rates can also provide useful insight into future population change and so has also been reviewed. Although not available at Ward or Region level, general fertility rate (recorded as live births per 1000 women aged 15-44, between 2016 and 2020) in West Lindsey was 57.6 and 61.8 in Bassetlaw, compared to 59.2 rate in England. (Ref 5-8).

Race

5.2.12 Table 5-7 shows the percentage breakdown of ethnic groups by geographical area. Overall, white ethnic groups compose 97.8% of the Study Area, compared to lower proportions in East Midlands (85.7%) and England (81%).

Table 5-7: Ethnic group (%) by geographical area, 2021 (Ref 5-9)

Ethnic group		Study Area	East Midlands	England
White	English, Welsh, Scottish, Northern Irish or British	96.2	79.6	73.5
	Irish	0.3	0.6	0.9
	Gypsy or Traveller	0.1	0.1	0.1
	Roma	0.0	0.1	0.2
	Other	1.2	5.3	6.3
Mixed/Multiple ethnic groups	White/Black Caribbean	0.4	0.6	0.8
	White and Black African	0.1	0.3	0.4
	White and Asian	0.2	1.0	0.9
	Other	0.2	0.5	0.8
Asian/Asian British	Indian	0.0	0.4	1.1
	Pakistani	0.1	0.5	0.8
	Bangladeshi	0.2	4.7	3.3
	Chinese	0.1	1.5	2.8
	Other	0.1	0.9	1.7
Black/African/Caribbean /Black British	African	0.2	1.7	2.6
	Caribbean	0.1	0.6	1.1
	Other Black	0.1	0.3	0.5
Other ethnic group	Arab	0.1	0.3	0.6
	Other	0.1	1.0	1.6

Religion or Belief

5.2.13 Amongst those identifying with a religion, Christians are the majority across all geographies: from 60.2% at the Study Area level, which is significantly higher

than the proportion of Christians in East Midlands (45.4%) and England (46.3%). At the same time, proportion of people not identifying with any religion is lower in the Study Area (32.4%) than in the region (40%) and nationally (36.7%).

Table 5-8: Religion or belief (%) by geographical area, 2021 (Ref 5-10)

Religion or belief	Study Area	East Midlands	England
Christian	60.2	45.4	46.3
Buddhist	0.2	0.3	0.5
Hindu	0.1	2.5	1.8
Jewish	0.1	0.1	0.5
Muslim	0.4	4.3	6.7
Sikh	0.1	1.1	0.9
Other religion	0.5	0.5	0.6
No religion	32.4	40.0	36.7
Religion not stated	6.0	5.9	6.0

Sex

5.2.14 Table 5-9 shows the split between male and female residents, which is almost even (50.1% males to 49.9% females. In comparison, the split in East Midlands is 50.8% of females to 49.2% males, and 51% to 49% nationally.

Table 5-9: Proportion (%) of residents by sex and geographical area, 2021 (Ref 5-11)

Sex	Study Area	East Midlands	England
Female	49.9	50.8	51.0
Male	50.1	49.2	49.0

Sexual Orientation

5.2.15 Table 5-10 presents a breakdown of adults by their identified sexual orientation. West Lindsey and Bassetlaw combined area had a slightly lower proportion of adults identifying their orientation as non-heterosexual (2.1%) compared to 2.9% in East Midlands and 3.1% in England. No sexual orientation data was available at the ward level.

Table 5-10: Sexual orientation (%) in West Lindsey and Bassetlaw, East Midlands, England, 2021 (Ref 5-12)

Sexual orientation	West Lindsey and Bassetlaw	East Midlands	England
Straight or Heterosexual	91.3	89.8	89.4
Gay or Lesbian	1.1	1.3	1.5
Bisexual	0.9	1.3	1.3
Pansexual	0.1	0.2	0.2

Sexual orientation	West Lindsey and Bassetlaw	East Midlands	England
Asexual	0.0	0.1	0.1
Queer	0.0	0.0	0.0
All other sexual orientations	0.0	0.0	0.0
Not answered	6.5	7.4	7.5

5.3 Key Findings

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

- The Study Area has a significantly smaller proportions of minority ethnic residents than regional and national averages.
- The Study Area has a significantly higher proportion of elderly people (aged 65+) compared to the national average.
- The Study Area has a significantly higher proportion of people identifying as Christian compared to regional and national averages.
- The Study Area has a higher rate of residents whose day-to-day lives are impacted by a health condition or disability than regional and national averages.

6. Consultation and Engagement

6.1 Overview

- 6.1.1 This section provides a summary of consultation activities undertaken in relation to the Scheme, with particular regard to demonstrating an inclusive approach to preparing activities and consultation materials.
- 6.1.2 The Applicant carried out non-statutory consultation in January-February 2022, which was followed by statutory consultation conducted between June and August 2022. Later on, Targeted Statutory Consultation was carried out between November and December 2022. More details on the Applicant's approach to the consultation is laid out in the **Consultation Report [APP-189/4.1]**.

6.2 Consultation and responses

- 6.2.1 As consultation took place during the pandemic; the Applicant worked in a proactive way to accommodate the needs of different people across the community and enable them to respond. This was done through provision of both in-person and digital consultation events and means to provide feedback. In addition, a range of informational materials in varying levels of technical difficulty was made available in-person in multiple locations and on the Scheme's website throughout the duration of consulting activities. The Applicant consulted during a period when the majority of legal coronavirus (COVID-19) restrictions had been lifted. However, in acknowledgement of the impact COVID-19 has had on the way people travel, and their working habits and patterns, as well as remaining health concerns among the elderly and 'high risk' groups, the Applicant sought to ensure that consultation was accessible to all even if they could not attend an in-person event.

Non-statutory consultation

- 6.2.2 Details included in Chapter 4 of the **Consultation Report [APP-189/4.1]**.
- 6.2.3 The non-statutory consultation comprised pre-consultation engagement and a period of consultation from January to February 2022, as well as additional engagement following the non-statutory consultation and prior to statutory consultation. Pre-consultation engagement was undertaken with political stakeholders and relevant local authorities with an aim to help inform the consultation process.
- 6.2.4 The purpose of the non-statutory consultation was to introduce the Applicant, present the emerging proposals and give local and/or interested people and stakeholders the opportunity to provide their views.
- 6.2.5 The consultation included a series of in-person events held at accessible community venues around the Scheme location (186 total attendees), as well as a range of in-person briefings and home visits undertaken in response to requests. In addition, two online consultation events were held for those who preferred to access the information online (28 total attendees).

- 6.2.6 Copies of the consultation booklet and a concept masterplan were made available at the consultation events and online on the Scheme website that has been set up prior to the non-statutory consultation. In addition, in-person consultation events made a range of information available, including large scale display panels, A2 copies of maps, consultation information booklets, feedback forms.
- 6.2.7 The following response channels were set up and managed throughout the consultation period:
- Email
 - Freephone
 - Freepost for correspondence and return of feedback forms
- 6.2.8 Following feedback obtained at the non-statutory consultation, a range of changes were made to the strategic environmental design of the Scheme, particularly in relation to scale, proximity to existing residential areas and visual impact and heritage assets. The changes are set out in detail in Chapter 4 of **Consultation Report and Appendix B [EN010131/APP-189/4.1]**.

Statutory Consultation

- 6.2.9 Whilst preparing for the statutory consultation, the Applicant developed a Statement of Community Consultation (SoCC), which described how the Applicant was meeting the requirement of the PA 2008 and set out how the consultation would be undertaken with people living in vicinity of the land affected by the Scheme. Prior to publishing, the contents of the SoCC were consulted with relevant local authorities. Details concerning development of the SoCC and its contents are included in **Consultation Report [APP-189/4.1]**.
- 6.2.10 Statutory consultation was launched in June and closed in August 2022. The purpose of the consultation exercise was to seek the views of statutory consultees and the public on the Scheme; the potential environmental effects of the Scheme during construction, operation and decommissioning and proposed mitigation; and the Preliminary Environmental Impact (PEI) Report.
- 6.2.11 Information on consultation was published in regional and local media aiming to inform wider audience about the consultation. In addition to properties and local businesses in the core consultation zone, the Applicant identified a range of seldom heard groups through desk-based research and discussions with Local Authorities. Identified organisations included groups with some protected characteristics, such as those representing young people, older people, people with a disability (including learning disability), ethnic minorities (including Gypsy and Travellers liaison groups). These included Lincolnshire Youth Council, Lincolnshire Gypsy Liaison Group, Age UK Nottingham and Nottinghamshire, and Lincoln and Lindsey Blind Society. Full list of organisations is included in the Consultation Report **Appendix E-2 [APP-194/4.2]**
- 6.2.12 Those groups were issued additional communications to notify them about the statutory consultation taking place and details of the consultation including dates. Direct engagement was offered to those groups, with an invitation to

suggest alternative ways of engaging. No requests were received from the organisations and bodies contacted for additional information nor for delivery of specific consultation activity to best meet the needs of the groups they represented.

6.2.13 Table 6-1 below outlines the consultation activities.

Table 6-1 Consultation activities

Method and activities	Details
In person consultation events	<p>Five in-person events took place in the core consultation zone: Marton and Gate Burton Village Hall (8th July 2022) (30 attendees) Rampton Village Hall (9th July 2022) (16 attendees) Willingham Village Hall (14th July 2022) (31 attendees) Knaith Park Village Hall (16th July 2022) (42 attendees) Treswell Village Hall (19th July 2022) (7 attendees)</p> <p>Specialists from key environmental disciplines, land specialists, construction and community relations, were on hand to explain the proposed Scheme and answer any questions. Site visits with residents and near neighbours were conducted.</p>
Digital consultation events	<p>Two webinars were held on Zoom: 7th July 2022 (9 attendees) 20th July 2022 (1 attendee)</p> <p>Webinar recordings were made available on the Scheme website over the period of statutory consultation.</p>
Physical copies of project documents	<p>Hard copies of consultation materials (Project Consultation Postcards, Project Information Booklets and Project Feedback Forms), technical documents were published and distributed throughout designated consultation zone.</p> <p>Designated document inspection locations had all the documents available from the day of statutory consultation launch for members of the public to read or collect.</p> <p>A Document Navigation booklet was distributed to aid people in understanding the nature of the content.</p> <p>Consultation documents in alternative formats were available on request by contacting the Applicant's community relations team.</p>
Scheme website	<p>Information about the Scheme, consultation materials, technical documents, were available at the Scheme's website.</p> <p>The website was optimised following the non-statutory consultation to enable information access and feedback provision through intuitive functions.</p>

6.2.14 A number of respondents raised concerns over impacts on nearby residential properties, including Gate Burton which resulted in implementing changes to the number of panels in proximity to the settlement. In addition, it was noted that the study area's routes and roads have recreational use, and they are often used by dog walkers, horse riders and leisure cyclists, with benches and grass verges being present. A number of comments raised concerns about the Scheme's impacts on human health and wellbeing, including respiratory and mental health due to pollution from construction activities. In addition, the issue of emissions of electromagnetic fields from solar park components was raised, with concern to the long-term impacts on human health.

6.2.15 A number of respondents expressed concerns over cumulative effects of other solar energy NSIPs (Cottam Solar Project; West Burton Solar Project; Tillbridge Solar) that are in various development stages and that are located in proximity to the Scheme (within West Lindsey District Council), especially those that will connect to the Cottam and West Burton substations. It was noted that the combined solar developments will result in a loss of around 3,000ha of Lincolnshire and Nottinghamshire countryside, with additional concerns addressing the loss of productive agricultural land. The Applicant ensured that they are collaborating with other projects to minimise overall impacts.

Targeted Statutory Consultation

6.2.16 Through ongoing engineering and construction review, design evolution of the Scheme proposals resulted in the Applicant making a number of localised changes to the indicative Order Limits. Additional consultation on these changes took place from November to December 2022. Through consideration of the degree of change, effect on local community and level of public interest, the Applicant determined that the localised changes did not constitute a “very substantial” change and therefore did not require to repeat consultation on the SoCC.

6.2.17 Targeted consultees included local communities in vicinity of the localised changes as well as parties representing the interests of those communities.

6.2.18 The Applicant produced documents containing information on localised changes in both digital and print format. The Scheme’s website was updated to include a dedicated page about the changes being consulted on with the ability for consultees to provide feedback. Consultees were able to respond online through the website or email, as well as through a printed Project Feedback Form and the dedicated Freepost.

6.2.19 Amongst comments relating specifically to proposed changes, respondents noted concerns over increases in the size of the Scheme as well as increased traffic near Cottam village and local schools due to inclusion of A156 and A1500 junction.

6.3 Other consultation activities

6.3.1 The Applicant has continued engaging with Local Planning Authorities and statutory environmental bodies outside of the statutory and non-statutory consultations, up to January 2023 when the DCO Application was submitted. Further engagement has been undertaken with a variety of relevant stakeholders, including Parish Councils, those with land interests, and the developers of Cottam Solar Project, West Burton Solar Project and Tillbridge Solar Project which are being developed in proximity to the Scheme as shown in Figure 6-1, taken from **Gate Burton Energy Park Interrelationships with other Nationally Significant Infrastructure Projects [REP-033/8.2]**. The full list of engaged bodies is available in Chapter 4 of **Consultation Report [APP-189/4.1]**.

6.3.2 Details of consultation with the undertakers of the Cottam, West Burton, and Tillbridge Solar Projects is available in the collectively produced report Gate Burton Energy Park Interrelationships with other Nationally Significant Infrastructure Projects **[REP-033/8.2]**. Given the close proximity of the Schemes and feedback received during Statutory Consultation relating to concerns about cumulative impacts, the Applicant has collaborated with the undertakers of the other schemes whilst designing the Scheme and making the application for development consent. The aim of this collaboration has been to reduce overall environmental and social effects of the schemes, particularly on communities close to the grid connection corridor.

Figure 6-4 Overview plan of other nearby solar projects

- 6.3.3 Given their similar timelines, the Applicant has met regularly with the developers of the Cottam, West Burton and Tillbridge projects to discuss areas of collaboration and co-ordination. Such collaboration led to simultaneous opportunities to engage with landowners about all projects, particularly in the shared grid connection corridor. This consequently reduced the number of times surveyors were accessing the same land parcels thus reducing disruption to landowners, as well as enabling sharing of survey costs.
- 6.3.4 In preparation for and during consultation, the Applicant coordinated with the other developers to ensure clear communication and to distinguish between the projects. The consultations opened and closed on different dates and events were held over different periods, with regular collaboration ensuring this was the case. This coordination allowed the local community the opportunity to attend events for each of the projects and to have sufficient time to provide feedback.

6.4 Examination

- 6.4.1 This EqIA has evidenced the consultation and engagement activities to date and how the Applicant has considered protected characteristic groups during them. This assessment can act as a resource for the examination stage to continue to consider the equality effects of the Scheme by demonstrating where these have been identified and considered and providing a framework to assess the overall equality impact of the Scheme.

7. Assessment of Impacts

7.1 Introduction

7.1.1 The assessment of equality impacts considers the potential impacts on affected people sharing protected characteristics arising from the proposed Scheme, as well as proposed mitigation measures where applicable and actions to further benefits. It considers positive and negative effects on protected characteristic groups during consultation, construction, operation, and decommissioning phases.

7.1.2 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:

- The Environmental Statement for the Scheme including information from **Chapter 11: Noise and Vibration [APP-020/3.1], Chapter 12: Socioeconomics and Land Use [APP-021/3.1], Chapter 13: Transport and Access [APP-021/3.1], Chapter 14: Human Health and Wellbeing [APP-022], and Chapter 15: Other Environmental Topics [APP-024/3.1].**
- **The Consultation Report [APP-189/4.1]**
- **Framework Construction Environmental Management Plan (CEMP) [REP-026/7.3]**
- **Framework Operational Environmental Management Plan (OEMP) [REP-028/7.4]**
- **Framework Decommissioning Environmental Management Plan (DEMP) [APP-226/7.5]**
- **Framework Construction Traffic Management Plan (CTMP) [REP2-020/3.3]**
- **Outline Public Rights of Way Management Plan [APP-229/7.8]**
- **Outline Skills, Supply Chain and Employment Plan [APP-228/7.7]**
- **Gate Burton Energy Park Interrelationships with other Nationally Significant Infrastructure Projects [REP-033/8.2]**

7.1.3 The Scheme stages that have been addressed, and the objective of the EqIA in relation to potential impacts, are set out in the framework in Table 7-1.

Table 7-1: EqIA Assessment Framework

Stage	EqIA objectives
Consultation	Clear, transparent, inclusive and meaningful engagement with local residents, stakeholders and the local community.
Construction	Provide employment opportunities for disadvantaged and underrepresented groups through the Outline Skills, Supply Chain and Employment Plan. Maximise benefits of local expenditure associated with the Scheme through the Outline Skills, Supply Chain and Employment Plan. Mitigate potential severance, congestion and delays on the local road network caused by an influx of vehicles associated with the Scheme.

Stage	EqIA objectives
Operation	<p>Mitigate noise, vibration and air quality impacts on nearby receptors and residents.</p> <p>Ensure changes to PRow and active travel networks are minimised and mitigated.</p> <p>Provide employment opportunities for disadvantaged and underrepresented groups.</p> <p>Maximise benefits of local expenditure associated with the Scheme.</p> <p>Assess the positive impact the Scheme will have on climate change for protected characteristic groups.</p> <p>Assess the potential cost-savings the Scheme will induce as a result of generating affordable, sustainable energy.</p> <p>Mitigate noise, vibration and air quality impacts on nearby receptors and residents.</p>
Decommissioning	<p>Provide employment opportunities for disadvantaged and underrepresented groups.</p> <p>Maximise benefits of local expenditure associated with the Scheme.</p> <p>Mitigate permanent employment loss following Scheme decommissioning.</p> <p>Assess and reduce potential severance, congestion and delays on the local road network caused by an influx of vehicles associated with the Scheme.</p> <p>Mitigate noise, vibration and air quality impacts on nearby receptors and residents.</p> <p>Ensure changes to PRow and active travel networks are mitigated.</p>

7.2 Consultation

Positive effect: Inclusive community consultation

- 7.2.1 Throughout the pre-application consultation process, the Applicant undertook a wide range of engagement and consultation activities with relevant parties including local authorities, statutory consultees, community representatives, site near neighbours, and regional media. The details of these activities are provided under Section 6 of this assessment, as well as in the **Consultation Report [APP-189/4.1]**. It is evidenced in the literature that those implementing policies, strategies, programmes, and schemes should ensure accessibility of consultation documents, information, and events to ensure they are inclusive, meaningful and consider the needs of users, particularly disabled and elderly people (**Ref 7-1**).
- 7.2.2 The pre-application consultation and engagement process was divided into several different activities which were:
- non-statutory consultation (October 2021 – June 2022);
 - developing the statement of community consultation (March 2022 – August 2022);
 - the period of statutory consultation (June 2022 – August 2022);
 - targeted stage two statutory consultation (November 2022 – December 2022); and
 - ongoing non-statutory engagement throughout preparation of the DCO application (November 2021 – January 2023).
- 7.2.3 These are described fully under Section 6.

- 7.2.4 The positive effect of completing this iterative and wide range of consultation and engagement activities is that the Applicant has demonstrated that they have paid due regard to equality legislation (such as the Equality Act 2010) which emphasises the importance of supporting positive relations between different groups, whilst also supporting local community cohesion policy (such as the Planning Act 2008) which promote group interaction, fair treatment, equal opportunity, and a sense of common belonging, including empowering local communities to shape decisions affecting their lives.
- 7.2.5 As established in the **Consultation Report [APP-189/4.1]**, the Applicant's priority for consultation was for it to be accessible to everyone who may have an interest in the Scheme, thus paying due regard to promoting equal opportunities between persons who share a protected characteristic and those who do not, as well as fostering good relations between those sharing a protected characteristic and those who do not. Furthermore, as outlined in Section 6 and further detailed in **Consultation Report Appendix E-2 [APP-194/4.2]**, the Applicant also identified a range of relevant local interest groups, community organisations and gateway organisations representing the interests of seldom heard and underrepresented groups. These included Lincolnshire Youth Council, Lincolnshire Gypsy Liaison Group, Age UK Nottingham and Nottinghamshire, and Lincoln and Lindsey Blind Society. The Applicants effort to maximise inclusivity of consultation through outreach with organisations that represent the interests of people with protected characteristics highlights a meaningful step towards promoting equal opportunities and fostering good relations.
- 7.2.6 All stages of consultation information were made available digitally through the Scheme website, as well as through hosting online webinars, a number of in-person events, and by placing reference copies of consultation documents at five publicly known locations (Saxilby Library, Lincolnshire; Gainsborough Library, Lincolnshire; Lincoln Central Library, Lincolnshire; West Lindsey District Council, Lincolnshire; and Retford Library, Nottinghamshire). The Applicant also placed notices of the statutory consultation in two national newspapers (The Guardian and The London Gazette) and four local newspapers (the Lincolnshire Echo, The Retford Times, The Gainsborough Standard, and The Market Rasen Mail).
- 7.2.7 The multi-modal approach to disseminating consultation information ensured that positive equality effects were achieved. For example, elderly people, disabled people, and people with mobility issues or those who spend a significant portion of time at home or who are not confident in public spaces were able to find out about the consultation activities via the website and provide feedback. Conversely, those who are not digitally adept, are not frequent internet users, or do not have internet access were able to attend in-person events and provide feedback via written methods. These measures constitute a significant equality benefit for elderly and disabled people, with 46% of over 75s and 19% of disabled adults in the UK not being recent internet users (i.e., have not used the internet within the last three months) (Ref 7-2). Methods of providing feedback were advertised at all consultation events, on the public community consultation documents, and on the Scheme website. These were as follows; hard copy feedback forms – available at request and at community events, online feedback forms, email –

info@gateburtonenergypark.co.uk which was promoted at all consultation events and on materials, and via free post which was promoted at all consultation events and on materials.

Positive effect: Collaborative consultation with nearby developers

- 7.2.8 As detailed in **Gate Burton Energy Park Interrelationships with other Nationally Significant Infrastructure Projects [REP-033/8.2]** as well as under Section 6.3, the Applicant has undertaken continuous consultation with the developers of Cottam Solar Project, West Burton Solar Project, and Tillbridge Solar Project due to their proximity to one another. The aim of this consultation has been to reduce potential cumulative environmental and social effects of the schemes, particularly on communities close to the grid connection corridor – in respect to equality considerations this primarily pertains to traffic and transport effects.
- 7.2.9 In preparation and during consultation, the Applicant coordinated with the Cottam and West Burton undertakers (as they were on a similar timeline) to ensure clear communication to stakeholders and distinguish between the projects. Consequently, consultations opened and closed on different dates and events were held over different periods allowing the community opportunity to attend events for each project if they wished and providing sufficient time for feedback.
- 7.2.10 The positive effect of this collaborative approach to consultation has been to foster good relations between groups, in particular for local residents sharing protected characteristics who may have had disproportionate concern about the simultaneous development of multiple solar farms. **The Gate Burton Energy Park Interrelationships with other Nationally Significant Infrastructure Projects [REP-033/8.2]** highlights that potential traffic change has been of particular interest for local communities and authorities. This interest may have been heightened amongst certain groups, for example elderly people or those with respiratory diseases, who can be more susceptible to the negative impacts of increased traffic and resultant decreased air quality (**Ref 7-3**). Consequently, as concluded in Appendix D of the report **[REP-033/8.2]** which provides a detailed Technical Note on potential cumulative traffic impacts using the most up-to-date information from all four of the projects – there are likely to be no significant effects. Furthermore, where practicable, a combined Construction Traffic Management Plan (CTMP) will be produced for the Scheme, Cottam Solar Project, and West Burton Solar Project, which will set out construction traffic management and control measures relevant to areas where vehicles will overlap.

7.3 Construction

Positive effect: Employment generation, and skills, training, and education development during construction

- 7.3.1 According to **Chapter 12: Socio-economics and Land Use [APP-021/3.1]** it is predicted that during the construction period the Scheme will generate 363 total net jobs per annum with a potential peak construction workforce of 400.

The majority of the average net jobs per annum, 207, will be taken by local workers residing within a 60-minute travel area of the site, with the remainder, 156, residing outside the study area.

- 7.3.2 The creation of new jobs is likely to have a positive equality effect on those in the local community who are disproportionately represented in unemployment figures, for example young people and disabled people (who both make up a higher share of the local population compared to regional and national averages – as outlined in Section 5).
- 7.3.3 As part of the DCO application an **Outline Skills, Supply Chain and Employment Plan (OSSCEP) [APP-228/7.7]** has been developed with the purpose of maximising and pro-actively expanding the economic benefits of the Scheme for the local community. As outlined in the OSSCEP, the Applicant will follow a Sustainable Sourcing Policy and Equality Policy; this may result in initiatives being introduced to maximise the diversity of the workforce, including targeting groups such as; workers of a certain gender, ethnicity, or age (16–24-year-olds or 50–64-year-olds), and disadvantaged or under-represented groups (such as long-term unemployed, ex-offenders, and disabled people). The most relevant target groups for this measure would be identified through consultation and research post-consent.
- 7.3.4 The OSSCEP sets out potential measures to ensure equality of opportunity for target groups. These measures include ensuring jobs are communicated to target groups, including identifying and working with specialist job brokerage agencies, and working with job support and training providers who operate programmes aiming to get young people into work (for example young people who are Not in Education, Employment or Training (NEET) may require pre-employment, basic skills training, and work placements).
- 7.3.5 The OSSCEP also identifies potential opportunities for activities relating to Skills, Supply Chain and Employment (SSCE) which the Applicant could take forward post-consent, subject to approval by the relevant planning authorities. Opportunities for engagement with institutions who could provide relevant skills training and education that would benefit local people are outlined. Such engagement aligns with the Greater Lincolnshire Local Enterprise Partnership (LEP) Strategic Economic Plan which prioritises an increase in delivery of low-carbon apprenticeships and adult training/employment opportunities to support the low-carbon, renewables, and the offshore economy. Improving the provision, quality, and uptake of apprenticeships in the sector would contribute to the wider aim of increasing the supply of young people and adults with low-carbon skills as also outlined in the Greater Lincolnshire LEP Strategic Economic Plan.

Negative effect: Increased traffic movements on local road network during construction

- 7.3.6 During construction there is potential for negative equality effects associated with increased traffic movements on the local road network. As outlined in the **Framework Construction Traffic Management Plan (CTMP) [APP-167/3.3 and subsequent versions]** for the Solar and Energy Storage Park during construction there will be a daily peak of 30 Large Goods Vehicles (LGVs) and

60 Heavy Goods Vehicles (HGVs) accessing and egressing the Park, these movements will be split across four access points. For the Grid Connection Corridor there will be a daily peak of 16 LGVs and 12 HGVs accessing and egressing the Corridor, these movements will be split across multiple access points. Staff vehicle movements will be split between 55% of construction staff being transferred to/from the Solar and Energy Park by shuttle service totalling 16 movements in the morning and 16 in the evening, the remaining 45% of construction staff will travel by private vehicle resulting in 276 daily movements. The summer working hours are 7am-7pm Monday – Friday and 9am – 1pm Saturday, and the winter working hours are 8am – 6pm Monday – Friday and 9am – 1pm Saturday.

- 7.3.7 **Chapter 13: Transport and Access [APP-022/3.1]** highlights potential negative effects of the increased traffic movements. Notably, in terms of equality considerations, increased HGV movements may lead to increased severance and congestion, as well as fear and intimidation for pedestrians and cyclists; construction staff travel movements may lead to delays and congestion; and change in route connections and surface amenity deterioration for pedestrians, cyclists and equestrians may arise from the Site layout and increased volume of haulage. Non-motorised road users, including children, elderly, and disabled people may be differentially affected by the increase in HGV and other traffic movements on the local road network due to heightened physical and/or mental vulnerabilities and lack of confidence as pedestrians (**Ref 7-4**).
- 7.3.8 Furthermore, road severance (namely at Kexby Lane which will be used as one of the four access points to the Solar and Energy Storage Park and has been assessed to expect a medium magnitude of change in relation to severance), delays and congestion can differentially affect elderly and disabled people's mobility capabilities and cause social exclusion (**Ref 7-5**).
- 7.3.9 The CTMP outlines proposed measures to mitigate the negative impacts associated with increased traffic movements in the construction period. To minimise HGV movements through local villages, and in reflecting the most suitable routes available for the vehicles' size, construction HGVs will travel to/from the Solar and Energy Storage Park via the A156, then using the B1241 to reach the northern and eastern portions of the Site. This strategy will reduce congestion and mitigate potential feelings of intimidation amongst local residents by avoiding the local villages. Furthermore, HGV movements will be reduced between certain times of day (e.g., 07:00 – 09:00 and 17:00 – 19:00) to avoid peak traffic times, and similarly construction workers are expected to arrive in the hour before the start of their shift and to depart in the hour after the end of their shift to avoid peak network hours. Where works are required to take place outside of the designated hours, the Local Planning Authority will be notified and affected residents, properties and businesses given prior warning. A road condition survey will be carried out pre-construction, during construction, and post construction at key points on the local network as well as at Site access points and verges to identify any defects that arise – this will ensure network amenity and confidence for users.

Negative effect: Noise, vibration, and air quality impacts on residential properties, commercial premises, and community facilities during construction

- 7.3.10 There is potential for noise, vibration and air quality effects arising from construction of the Scheme to negatively affect the wellbeing of residents and the amenity of their properties, as well as that of businesses community facilities and their users.
- 7.3.11 **Chapter 11: Noise and Vibration [APP-020/3.1]** establishes that during construction, the proposed Scheme has the potential to cause impacts on nearby residential properties, commercial premises, and community facilities due to activities associated with site preparation, plant installation, substation construction, cable laying, and construction related vehicle movements. Construction induced noise and vibrations resulting from these activities can differentially impact those spending more time at home, including older people, people with disabilities and long-term limiting illnesses, pregnant people and those caring for small children. In addition, some children, elderly and disabled people may also experience auditory perception issues, cardiovascular problems and psychological annoyance or disorientation due to noise and vibrations (**Ref 7-7**). **Chapter 15: Other Environmental Topics [APP-024/3.1]** includes a section on air quality and identifies potential negative impacts relating to dust deposition and subsequent soiling of surfaces, visible dust plumes, and elevated PM10 and NO₂ concentrations. Deterioration in air quality can negatively impact elderly people as it may exacerbate pre-existing chronic diseases as well as cause new respiratory problems (**Ref 7-3**) and also children who may be more susceptible due to physiological reasons as well as spending more time outdoors (**Ref 7-7**).
- 7.3.12 The **Framework Construction Environmental Management Plan (CEMP) [APP-224/7.3 and subsequent versions]** outlines mitigation measures for construction related noise and vibration and air quality impacts. In relation to noise and vibration, mitigation measures include a communication strategy overseen by the Environmental Manager that will allow for noise complaints to be monitored and reported to the Applicant for investigation and action, a display board on-site and on the Scheme website with contact details for the Community Liaison Officer, and a logbook of complaints to be managed by the Site Manager. In relation to horizontal direction drilling (HDD) the CEMP outlines that where possible these types of works will be avoided within 200m of residential receptors, and where within 200m open cut cable laying will be explored as an alternative option. Further details of noise mitigation measures to avoid public disturbance are detailed in Table 3-6 of the CEMP.
- 7.3.13 Mitigatory measures for potential air quality impacts are also outlined in the CEMP, these include similar complaint reporting and monitoring mechanisms as outlined for noise and vibration (i.e. an environment manager); also included is development of a Dust Management Plan to be approved by the Local Authority, regular site inspections to monitor dust levels, and where possible plan the site layout so that machinery and dust causing activities are located away from receptors where practicable. Specific construction mitigation measures in relation to air quality include avoiding scabbling (roughing of concrete) where possible, ensure sand and other aggregates are

stored in bunded areas and not allowed to dry out, and ensuring bulk cement and fine powder materials are delivered in enclosed tankers. Further details of air quality mitigation measures are detailed in Table 3-13 of the CEMP.

Negative effect: Diversions to Public Rights of Way (PRoWs) during construction

- 7.3.14 During the construction phase of the Scheme there is potential for PRoWs running through and around the Site to be used as vehicle crossing points, be physically separated from construction routes or works areas, or be temporarily diverted – all of which may have a negative effect on local users.
- 7.3.15 As established in the **Outline Public Rights of Way Management Plan [APP-229/7.8]**, and highlighted in Figure 4-2, there are a number of PRoWs that will be affected during the construction phase. In the Solar and Energy Storage Park, one PRoW will be used as a crossing point during construction and will also be required to be physically separated from the construction routes and work areas. In the Grid Connection Corridor, ten PRoWs will be required to be physically separated from the proposed construction routes and work areas. Of these ten, five will also be utilised as crossing routes for construction vehicles, and another five (four of which being the same) will be required to be temporarily diverted for a six-week period during cable installation. Overall, four of the PRoWs affected by construction of the Grid Connection Corridor will be physically separated, used as crossing points, and temporarily diverted.
- 7.3.16 There is potential for PRoW changes to impact certain protected characteristic groups and local land users. Adults (aged 16-64) are the most frequent users of outdoor and natural spaces (**Ref 7-8**) and therefore may be disproportionately affected by changes to the PRoWs for example by getting lost, disorientated, or at heightened risk of being involved in a road traffic collision if routes are not sufficiently marked. Furthermore, those with mobility issues such as older people, disabled people, and young children or those with pushchairs may experience differential effects resulting from extended journeys.
- 7.3.17 The **Outline Public Rights of Way Management Plan [APP-229]** proposes to mitigate the three PRoW diversion types as follows; physically separated PRoWs will be separated using mesh, Heras or other similar types of fencing as necessary to maximise safety for pedestrians and cyclists; crossing points will be managed by marshals, banksmen, and/or gates with a default priority that construction traffic give-way to other users, advanced signage will also be used to warn users of potential presence of vehicles; temporary diversions are proposed to occur for a short period and the re-route length is expected to be a maximum of 50m before re-joining the original route, and allowing for a 5m buffer from the edge of the works area. Minor diversions will be clearly marked with signage at either end, or the route will be agreed with the relevant Local Authority. The temporarily diverted routes will be reinstalled to their original layout once the Grid Corridor Connection is complete.

7.4 Operation

Positive effect: Employment generation during operation

- 7.4.1 **Chapter 12: Socio-economics and Land Use [APP-021/3.1]** makes an estimation that one existing job within the Site related to agricultural activities will be lost as well as one job outside the Order Limits during operation of the site. However, taking into account net direct employment, indirect and induced employment, as well as the loss of existing employment, an estimated total net employment of 13 new long-term jobs is expected during operation.
- 7.4.2 The creation of new jobs is likely to have a positive equality effect on those in the local community who are disproportionately represented in unemployment figures, for example young people and disabled people (who both make up a higher share of the local population compared to regional and national averages – as outlined in Section 5). Due to the limited employment generation during Operation, the equality benefit would be positive but negligible.

Neutral effect: Noise, vibration, and air quality impacts on residential properties, commercial premises, and community facilities during operation

- 7.4.3 There is potential for noise, vibration and air quality effects arising from construction of the Scheme to negatively affect the wellbeing of residents and the amenity of their properties, as well as that of businesses community facilities and their users.
- 7.4.4 **Chapter 11: Noise and Vibration [APP-020/3.1]** establishes that plant will operate continuously so there will not be any noticeable impulsive or intermittent characteristics from plant noise emissions experienced at surrounding receptors. However, overall plant noise emissions will likely be experienced at receptors as a distinctive continuous and steady hum. There is potential for this continuous hum and other plant noise to cause disturbance and irritation to nearby residents and receptors; this may differentially impact children and young people who have higher sensitivity. Elderly and disabled people may also experience auditory perception issues, cardiovascular problems and psychological annoyance or disorientation due to noise and vibrations (**Ref 7-6**). Furthermore, it has been claimed in relation to other solar farm developments that *“volume, low frequency constant sound emitted...would cause constant irritation to some (school) pupils”* (**Ref 7-9**) and may be particularly detrimental to those with learning difficulties or autism, as they can experience severe discomfort caused by uncharacteristic noises (**Ref 7-10**).
- 7.4.5 However, **Chapter 11: Noise and Vibration [APP-020/3.1]** assesses that the operational noise effect at all receptors will not exceed the Significant Observed Adverse Effect Level (SOAEL). Furthermore, embedded mitigation to further reduce potential impacts are noted as using suitably quiet plant, designing the layout to locate noise emitters away from receptors, and using enclosed transformers that form a single contained unit to minimise noise.

- 7.4.6 **Chapter 15: Other Environmental Topics [APP-024/3.1]** includes a section on air quality and establishes that because the Scheme requires a low number of full-time workers on-site, coupled with a maximum of three to four visitors per week (for deliveries, replacement of components), there will not be a detrimental local air quality impact resulting from vehicle movements during operation.

Positive effect: Positive contribution to climate change

- 7.4.7 As set out in **Chapter 6: Climate Change [APP-015]** renewable energy generation from the Scheme during the first year of operation is estimated to be 479,790 MWh, taking into account PV Panel degradation and replacement midway through the design life, an estimated energy generation figure of 420,967 MWh is estimated for the final year of operation. In comparison to a gas-fired Combined Cycle Gas Turbine (CCGT) generating facility, currently the most carbon-efficient fossil-fuelled technology available, the operational carbon intensity of the Scheme will be 95% lower, equivalent to a lifetime carbon reduction of over 9 million tonnes CO₂e. The renewable energy generation of the Scheme, and comparative carbon reduction compared to non-renewable methods, will therefore have a beneficial effect on the climate.
- 7.4.8 People who share protected characteristics are more vulnerable to the impacts of climate change, including:

- More variable and extreme weather to the spread of pests and diseases. Extreme weather events, for example heatwaves, have disproportionate negative impacts on some protected characteristic groups, for example elderly people (**Ref 7-11**).
- 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. This could impact on properties and infrastructure – with serious consequences for people, heritage, businesses, and communities. 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 7-12**).
- 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 7-13**).

Positive effect: Generation of more affordable energy supply

- 7.4.9 Solar generation can be provided at a large scale for a relatively low cost which, relative to other electricity generation infrastructure, can provide value for money for end-use consumers. (**Ref 7-14**). This is a benefit that can be shared by protected characteristic groups who disproportionality experience socio-economic advantage. This includes older people, women, disabled people, younger people, and ethnic minority groups. In turn, this could have additional positive effects for health and well-being by helping to secure affordable supplies of energy.

7.5 Decommissioning

Positive effect: Employment generation during decommissioning

- 7.5.1 As outlined in **Chapter 12: Socio-economics and Land Use [APP-021]** it is predicted that during the decommissioning period the Scheme will generate the same employment as during construction; that is 363 total net jobs per annum with a potential peak construction workforce of 400. The majority of the average net jobs per annum, 207, will be taken by local workers residing within a 60-minute travel area of the site, with the remainder, 156, residing outside the study area.
- 7.5.2 Given the timescale of when decommissioning will occur (in 60 years), application of training and skills development opportunities specifically for the decommissioning phase are not outlined in the OSSCEP. However, in relation to STEM education and careers, the OSSCEP does recognize the possibility that given the long timescales, some of the target individuals who are interacted with now as part of the Scheme may later become part of the workforce.

Negative effect: Increased traffic movements on local road network during decommissioning

- 7.5.3 As outlined in **Chapter 14: Human Health and Wellbeing [APP-023/3.1]** traffic flow associated with decommissioning cannot be accurately forecasted for 60 years or more into the future, however the Scheme's impact on the local road network is expected to be similar to that during construction based on the similar number of trips expected to be made and the duration of these phases. Notably, in terms of equality considerations; increased HGV movements may lead to increased severance and congestion, as well as fear and intimidation for pedestrians and cyclists; construction staff travel movements may lead to delays and congestion; and change in route connections and surface amenity deterioration for pedestrians, cyclists and equestrians may arise from the Site layout and increased volume of haulage. Non-motorised road users such as children, elderly, and disabled people may be differentially affected by the increase in HGV and other traffic movements on the local road network due to heightened physical and/or mental vulnerabilities and lack of confidence as pedestrians (**Ref 7-4**). The differential impact of increased traffic on elderly people, particularly those with mobility issues or low road-user confidence, may also have a disproportionate impact during the decommissioning phase due to the UK's ageing population, with predictions estimating one in four people will be aged 65 years or over by 2050 (**Ref 7-15**). It should be noted, however, that these adverse effects are not significant in EIA terms.
- 7.5.4 The **Framework Decommissioning Environmental Management Plan (DEMP) [APP-226/7.5]** states that the final **Decommissioning Traffic Management Plan (DTMP)** will be developed by contractor prior to the decommissioning phase in consultation with the appropriate Local Planning Authorities (LPAs). The DTMP will include a **Decommissioning Worker Travel Plan (DWTP)** to utilise sustainable modes of transport, both the DTMP

and DWTP will use the measures detailed in the CTMP as their starting point, updated to reflect the circumstances prevailing during the period in which decommissioning is to be carried out.

Negative effect: Noise, vibration, and air quality impacts on residential properties, commercial premises, and community facilities during decommissioning

- 7.5.5 As stated in **Chapter 14: Human Health and Wellbeing [APP-023]** it is assumed that noise and vibration and air quality impacts during the decommissioning phase will generate similar effects to those anticipated during construction. Elderly and disabled people may also experience auditory perception issues, cardiovascular problems and psychological annoyance or disorientation due to noise and vibrations (**Ref 7-3**). Deterioration in air quality can negatively impact elderly people as it may exacerbate pre-existing chronic diseases as well as cause new respiratory problems (**Ref 7-6**) and also children who may be more susceptible due to physiological reasons as well as spending more time outdoors (**Ref 7-9**).
- 7.5.6 The DEMP outlines the same mitigation measures for air quality effects as are stated in the CEMP. In relation to noise and vibration, the same mitigation measures are also reflected in the DEMP as in the CEMP, other than in relation to HDD which will not be required during decommissioning. It is not yet known whether buried cables will be removed or left in situ, if they are to be removed then practices used to reduce the volume of noise and vibration (as outlined in the DEMP) will be adhered to.

Negative effect: Diversions to Public Rights of Way (PRoWs) during decommissioning

- 7.5.7 As set out in the **Outline Public Rights of Way Management Plan [APP-229]** it is expected that there will be similar implications on local PRoWs as in the construction phase, with minor changes and temporary diversions required to provide safe access to and from the Site. There are not anticipated to be any permanent PRoW closures.

7.6 Summary of impacts

- 7.6.1 **Table 14** 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**:
- 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.
 - 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 7-2** also provides a brief overview of the planned mitigation measures to minimise adverse effects, as well activities to be put in place to enhance opportunities resulting from beneficial impacts.
- 7.6.4 It is envisaged that this table will be used to monitor equality effects as the Scheme development progresses.

Table 7-2: Summary of potential equality impacts of the Scheme.

Impact	Disproportionately/ Differentially Affected Protected Characteristic Groups											Overview of Potential Effects	Planned Mitigation/ Actions
	Age			Sex	Ethnicity	Religion	Disability	Transgender	Sexual Orientation	Pregnancy/ Maternity	Marriage and civil partnership		
	Children	Young People	Older People										
Consultation	Inclusive community consultation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	All groups including those with protected characteristics who are traditionally under-represented have been targeted through accessible engagement. This includes young people, people of minority ethnic background and disabled people.	<u>Action to enhance benefit:</u> Ongoing engagement outside of statutory consultation with stakeholders including Parish Councils and those with land interests.
	Collaborative consultation with nearby developers		✓				✓			✓		Some protected characteristic groups may have had disproportionate concerns, for example relating to traffic impacts, due to the simultaneous development of multiple solar farms in close proximity.	<u>Action to enhance benefit:</u> Development of a combined Construction Traffic Management Plan (CTMP) where practicable.
Beneficial													

Disproportionately/ Differentially Affected Protected Characteristic Groups

Impact

Age

Overview of Potential Effects

Planned Mitigation/
Actions

- Children
- Young People
- Older People
- Sex
- Ethnicity
- Religion
- Disability
- Transgender
- Sexual Orientation
- Pregnancy/ Maternity
- Marriage and civil partnership

Construction

Beneficial

Employment generation, and skills, training, and education development during construction

- ✓
- ✓
- ✓
- ✓

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.

Action to enhance benefit:
An Outline Skills, Supply Chain and Employment Plan (OSSCEP) [APP-228/7.7] has been developed to maximise the benefits of employment generation and skills development and training for the local economy and community.

Disproportionately/ Differentially Affected Protected Characteristic Groups

Impact	Age											Overview of Potential Effects	Planned Mitigation/ Actions
	Children	Young People	Older People	Sex	Ethnicity	Religion	Disability	Transgender	Sexual Orientation	Pregnancy/ Maternity	Marriage and civil partnership		
Increased traffic movements on the local road network 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, as well as consequent increases in noise and vibrations and worsened air quality, both of which can particularly be caused by large vehicles such as HGVs.	<u>Planned mitigation:</u> Development of a Framework Construction Environmental Management Plan (CEMP) [APP-224/7.3] and Framework Construction Traffic Management Plan (CTMP) [APP-167/3.3].
Adverse Noise, vibration, and air quality impacts on residential properties, commercial premises, and community facilities during construction	✓	✓	✓			✓			✓			Children are more vulnerable to the effects of increased noise and vibration, and decreased air quality, than the population overall. Older people, disabled people and pregnant people may also 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> Development of a Framework Construction Environmental Management Plan (CEMP) [APP-224/7.3].

Disproportionately/ Differentially Affected Protected Characteristic Groups

Impact

Age

Overview of Potential Effects

**Planned Mitigation/
Actions**

Children

Young People

Older People

Sex

Ethnicity

Religion

Disability

Transgender

Sexual Orientation

Pregnancy/ Maternity

Marriage and civil partnership

Diversions to PRowS during construction

✓

✓

✓

✓

✓

The diversions provided to the PRowS may be less accessible, or more unsafe, compared to the existing routes due to extensions, lack of signage or poor quality. This could cause negative impacts for frequent users or those with mobility issues such as older people, disabled people and people with young children/pushchairs.

Planned mitigation:
Development of an Outline Public Rights of Way Management Plan [APP-229/7.8].

Operation

Disproportionately/ Differentially Affected Protected Characteristic Groups

Impact

Age

Overview of Potential Effects

Planned Mitigation/
Actions

- Children
- Young People
- Older People
- Sex
- Ethnicity
- Religion
- Disability
- Transgender
- Sexual Orientation
- Pregnancy/ Maternity
- Marriage and civil partnership

Employment generation during operation

✓ ✓ ✓ ✓

Young people, especially those from ethnic minority groups who experience disproportionately higher levels of unemployment may experience positive effects of employment opportunities and skills and training development.

Action to enhance benefit:
An Outline Skills, Supply Chain and Employment Plan (OSSCEP) has been developed to maximise the benefits of employment generation and skills development and training for the local economy and community.

Positive contribution to climate change

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

Those from protected characteristic groups are disproportionately at risk from the negative effects of climate change. The positive contribution of the Scheme to the climate is likely to have positive effects for all groups.

Action to enhance benefit:
Replacement of degraded PV Panels to maintain performance.

Beneficial

Disproportionately/ Differentially Affected Protected Characteristic Groups

Impact	Age											Overview of Potential Effects	Planned Mitigation/ Actions
	Children	Young People	Older People	Sex	Ethnicity	Religion	Disability	Transgender	Sexual Orientation	Pregnancy/ Maternity	Marriage and civil partnership		
Generation of more affordable energy supply	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Those from certain protected characteristic groups are disproportionately likely to be on low incomes and experience socio-economic disadvantage. More affordable energy supplies will have positive effects for these groups.	N/A
Adverse Noise, vibration, and air quality impacts on residential properties, commercial premises, and community facilities during construction	✓	✓	✓				✓		✓			Children are more vulnerable to the effects of increased noise and vibration than the population overall. Older people, disabled people and pregnant people may also 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> It is predicted that the operational noise at all receptors will not exceed Significant Observed Adverse Effect Level (SOAEL) alongside embedded mitigation measures such as use of quiet plant. There are no predicted detrimental air quality impacts.

Disproportionately/ Differentially Affected Protected Characteristic Groups

Impact	Age											Overview of Potential Effects	Planned Mitigation/ Actions
	Children	Young People	Older People	Sex	Ethnicity	Religion	Disability	Transgender	Sexual Orientation	Pregnancy/ Maternity	Marriage and civil partnership		
Decommissioning													
Beneficial	Employment generation 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.	<u>Action to enhance benefit:</u> An Outline Skills, Supply Chain and Employment Plan (OSSCEP) has been developed to maximise the benefits of employment generation and skills development and training for the local economy and community.
	Long-term unemployment loss following decommissioning			✓	✓		✓					Workers belonging to protected characteristic groups who are employed by the Scheme will face unemployment post-decommission.	<u>Planned Mitigation:</u> It is expected that the workers will be integrated into the local economy and find new employment once the Scheme is finished. Furthermore, the two agricultural jobs lost as a result of the Scheme should be generated again.
Adverse													

Disproportionately/ Differentially Affected Protected Characteristic Groups

Impact

Age

Overview of Potential Effects

**Planned Mitigation/
Actions**

- Children
- Young People
- Older People
- Sex
- Ethnicity
- Religion
- Disability
- Transgender
- Sexual Orientation
- Pregnancy/ Maternity
- Marriage and civil partnership

Increased traffic movements on the local road network during decommissioning

- ✓
- ✓
-
-
-
-
- ✓
-
-
- ✓
-

Children, older people, disabled people, and pregnant people can be more vulnerable to the negative impacts of increased traffic flows, including road safety concerns, as well as consequent increases in noise and vibrations and worsened air quality, both of which can particularly be caused by large vehicles such as HGVs.

Planned mitigation:
Development of a Framework Decommissioning Environmental Management Plan (DEMP) [APP-226/7.5] and Decommissioning Worker Travel Plan (DWTP).

Noise, vibration, and air quality impacts on residential properties, commercial premises, and community facilities during decommissioning

- ✓
- ✓
- ✓
-
-
-
- ✓
-
-
- ✓
-

Children are more vulnerable to the effects of increased noise and vibration, and decreased air quality, than the population overall. Older people, disabled people and pregnant people may also 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.

Planned mitigation:
Development of a Framework Decommissioning Environmental Management Plan (DEMP).

Disproportionately/ Differentially Affected Protected Characteristic Groups

Impact

Age

Overview of Potential Effects

Planned Mitigation/
Actions

- Children
- Young People
- Older People
- Sex
- Ethnicity
- Religion
- Disability
- Transgender
- Sexual Orientation
- Pregnancy/ Maternity
- Marriage and civil partnership

Diversions to PRowS during construction

- ✓
- ✓
-
-
-
-
- ✓
-
-
- ✓
-

The diversions provided to the PRowS may be less accessible compared to the existing routes due to extensions, lack of signage or poor quality. This could cause negative impacts for those with mobility issues such as older people, disabled people and people with young children/pushchairs.

Planned mitigation:
Development of an Outline Public Rights of Way Management Plan [APP-229/7.8].

8. Summary and Conclusions

8.1 Summary

8.1.1 This EqlA has identified the key issues and potential impacts related to protected characteristic groups with regards to the Scheme. This section summarises key impacts and the mitigation measure that have been planned.

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 There is potential for the Scheme to result in disadvantage for some protected groups through the following:

- Increased noise levels for residents during construction, operation and decommissioning. This could have a differential effect on those who are more sensitive to noise impacts such as children and disabled people or those who may spend more time at home such as older people. However, noise levels have been assessed to not be significant on noise sensitive receptors and mitigation should limit any of these impacts.

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

8.1.4 The EqlA has highlighted a number of 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.

- The construction, operation and decommissioning of the Scheme could provide a range of procurement and employment opportunities including an increase in green jobs. Implementation of local supply chain initiatives that target local groups who are overrepresented in unemployment figures (such as younger people and disabled people) or underrepresented in the port and energy industry (such as women) will enhance the positive effect. Furthermore, local employment will help mitigate local issues relating to deprivation, such as high unemployment and economic inactivity.
- The benefits of a transition to increased renewable energy will bring positive impacts for groups who are most vulnerable to climate change and pollution, at both a local and national level. This is likely to benefit disabled people and younger people, as well as on the wellbeing of a wider range of groups in relation to increasing awareness surrounding climate change.

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

- 8.1.5 The EqIA 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:
- Inclusive public engagement has been undertaken and will continue to be undertaken as the Scheme develops. Consultation and engagement processes have been designed to reach as many people as possible within the areas in the vicinity of the Scheme and include collaborative consultation with other providers of similar schemes in the local area to limit cumulative impacts on residents.

8.2 Conclusions

- 8.2.1 This EqIA has identified some negative impacts on groups with protected characteristics through the construction, operation and decommissioning of the Scheme. However, the mitigation measures would reduce the negative impact during each stage of the Scheme.

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