Gate Burton
ENERGY PARK

Gate Burton Energy Park
EN010131

Envvironmental Statement Non-Technical Summary
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APFP Regulation 5(2)(a)
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Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Gate Burton Energy Park Limited

Prepared for:

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1. Introduction

1.1. Background

1.1.1. This document has been prepared on behalf of Gate Burton Energy Park Limited (the 'Applicant') and provides a Non-Technical Summary (NTS) of the Environmental Statement (ES) for the proposed Gate Burton Energy Park.

1.1.2. The Applicant has submitted an application for a Development Consent Order (DCO) to the Secretary of State for Business, Energy, and Industrial Strategy for the construction, operation (including maintenance), and decommissioning of a photovoltaic (PV) array electricity generating storage facility exceeding 50 megawatts (MW) capacity, with associated battery storage facility and connection to the National Grid (hereafter referred to as the 'Scheme').

1.2. The Order Limits

1.2.1. The land for which DCO consent is being sought is referred to as the 'Order limits' and comprises approximately 824 hectares (ha). It is located 4 kilometres (km) south of Gainsborough.

1.2.2. The Order limits includes the 'Solar and Energy Storage Park' which has a 652 ha area, comprising solar PV and battery storage infrastructure, and the 'Grid Connection Corridor', covering 172 ha, within which the connection will be sited, connecting the Solar and Energy Storage Park to the existing substation at Cottam Power Station.

1.2.3. The Order limits are shown on **Figure 1.**

1.2.4. A description of the physical characteristics of the Scheme and the land-use requirements during the construction, operational, and decommissioning phases is presented in Section 4: Scheme Description of this NTS.

1.3. The Applicant and Author of the ES

1.3.1. The Applicant, Gate Burton Energy Park Limited, is the promoter for the Scheme, which is being developed by Low Carbon Limited, a UK investment and asset management company specialising in renewable energy.

1.3.2. Low Carbon Limited is committed to making a positive and significant impact on climate change by investing in large-scale renewable energy projects across a range of energy technologies including solar PV, onshore wind, offshore wind, waste-to-energy, battery storage and other proven renewable energy technologies.

1.3.3. To date, the Low Carbon investment model has enabled the deployment of more than £600 million in capital into renewable infrastructure with more than 1GW already developed. Its proprietary renewable energy pipeline currently

stands at more than 5GW, ideally positioning it to capitalise on investment opportunities as the need for green power and energy security increases. Low Carbon's investments are generating sufficient clean energy to power more than 390,000 homes, avoiding in excess of 750,000 tonnes of CO_2 emissions each year.

1.3.4. This document has been compiled by AECOM and presents a non-technical summary of the ES **[EN010131/APP/3.1]**. AECOM is a registrant to the Environmental Impact Assessment (EIA) Quality Mark scheme run by the Institute of Environmental Management and Assessment (IEMA).

1.4. The Purpose of the Environmental Statement and NTS

1.4.1. The ES **[EN010131/APP/3.1]** has been produced to accompany the DCO Application, as required by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ("the EIA Regulations") (Ref 1), in order to ensure that the Examining Authority (who considers the Application), and the Secretary of State (who makes the ultimate decision as to whether consent should be granted for the Scheme) are aware of the likely significant effects on the environment as a result of the Scheme. The ES complies with all the elements of Schedule 4 of the EIA Regulations, including the matters set out below:

- A description of the development, including its location, the physical characteristics, main characteristics of the operational phase, and an estimate of expected residues and emissions of the Scheme;
- A description of the reasonable alternatives considered, including the main reasons for selecting the chosen option and comparison of the environmental effects;
- A description of the baseline scenario and an outline of the likely future environment without implementation of the development;
- A description of factors specified in regulation 5(2) likely to be significantly affect by the development;
- A description of the likely significant effects of the development on the environment;
- A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment;
- A description of the measures which would be taken to avoid, prevent, reduce, or offset any identified significant adverse effects on the environment;
- A non-technical summary of the information provided in the above points; and
- A reference list detailing sources used for the descriptions and assessments.

1.4.2. The purpose of this NTS is to describe the Scheme and to provide a summary, in non-technical language, of the key findings of the ES.

2. EIA Process and Methodology

2.1.1. **ES Volume 1, Chapter 5: EIA Methodology [EN010131/APP/3.1]** describes the approach the EIA has taken to assessing impacts associated with the Scheme, including the significance criteria against which impacts have been assessed.

2.2. Overview

2.2.1. EIA is the process undertaken to identify and evaluate the likely significant effects of a proposed development on the environment and to identify measures to mitigate or manage any significant adverse effects. The EIA should be informed by consultation with statutory consultees, other interested bodies, and members of the public. The purpose of identifying significant effects is to ensure decision makers are able to make an informed judgement on the environmental impacts of a proposal.

2.2.2. The process of assessing and minimising effects involves continually feeding back environmental information obtained through surveys and consultation into the project design and re-evaluating the likely effects of the Scheme as a result.

2.2.3. All environmental assessments in the ES follow a similar methodology unless specifically stated within the ES chapter. The likely effect that the Scheme may have on each receptor is influenced by a combination of the sensitivity of the receptor and the predicted magnitude of change from the baseline conditions (either positive (beneficial) or negative (adverse)).

2.2.4. The environmental sensitivity, value, or importance of a receptor may be categorised by a range of factors, such as threat to rare or endangered species, transformation of natural landscapes, or changes to soil quality and land-use.

2.2.5. The overall likely effect is determined by the interaction of the above two factors (i.e., sensitivity/importance and predicted magnitude of change from the baseline). Each chapter sets a threshold above which effects are considered to be “significant” in terms of the EIA Regulations. Where the magnitude of change is identified as “neutral”, there is no effect.

2.2.6. Where significant effects are identified, mitigation is proposed where practicable, to reduce or prevent the likely significant adverse effects occurring. Residual effects are the effects that remain after the proposed mitigation has been taken into account.

2.2.7. Cumulative effects have also been assessed, which take into account other proposed developments in the area which could lead to additional effects in combination with the Scheme.

2.2.8. The ES provides the latest environmental information obtained and assessed as part of the EIA. It accompanies the Application and follows a systematic approach to EIA and project design. The process of identifying environmental effects has been both iterative and cyclical, running in tandem with the iterative design process.

2.3. EIA Scoping

2.3.1. An EIA Scoping Report and a request for an EIA Scoping Opinion under Regulation 10 of the EIA Regulations was submitted to the Planning Inspectorate on 12th November 2021 (**ES Volume 3: Appendix 1-A [EN010131/APP/3.3]**).

2.3.2. The aim of the EIA Scoping process is to identify expected key environmental issues at an early stage, to determine which elements of the Scheme are likely to result in significant effects on the environment and to establish the extent of survey and assessment requirements for the EIA, including identifying which topics should be included in the EIA and the level of detail to which they should be assessed.

2.3.3. The Scoping Opinion was adopted by the Secretary of State on 20th December 2021, which presents the formal response from the Planning Inspectorate (on behalf of the Secretary of State) and statutory consultees (**ES Volume 3: Appendix 1-B [EN010131/APP/3.3]**).

2.3.4. Key issues raised in the Scoping Opinion are summarised in **ES Volume 3: Appendix 1-C [EN010131/APP/3.3]** and have been considered during the EIA process.

2.4. Preliminary Environmental Information Report

2.4.1. A Preliminary Environmental Information (PEI) Report was prepared and published in June 2022. The purpose of the PEI Report was to *"enable the local community to understand the environmental effects of the proposed development so as to inform their responses regarding the proposed development"* (Planning Inspectorate, Planning Advice Note 7 (Ref 2). It was also prepared to meet the requirements of Regulation 12(2) of the EIA Regulations.

2.4.2. The PEI Report provided the preliminary findings of the environmental assessment undertaken at that time in the Scheme design development. Upon completion of the PEI Report, the various assessments were at differing stages of completion due to ongoing design work and continued collection of baseline information. The environmental assessments were considered as a worst-case scenario, and therefore the environmental effects identified will either be the same as, or less than, those reported in the ES.

2.4.3. The PEI Report has been further developed following completion of the design work and environmental assessment and now constitutes the ES, which this NTS summarises.

2.5. Consultation

2.5.1. Consultation is integral to the preparation of DCO applications and to the EIA process. The views of consultation bodies and the local community serve to focus the environmental studies and to identify specific issues that required further investigation, as well as to inform aspects of the design of the Scheme. The Planning Act 2008 (Ref 3) requires applicants for DCOs to carry out formal (statutory) pre-application consultation on their proposals.

2.5.2. The Applicant adopted a two-stage approach to pre-application consultation on the Scheme. A non-statutory consultation was carried out during January and February 2022, and statutory consultation was undertaken from June to August 2022, following the publication of the PEI Report. This is described in the **Consultation Report [EN010131/APP/4.1]** submitted as part of the DCO Application.

2.5.3. The publication of the PEI Report in June 2022 formed an important part of the statutory consultation process, as it allowed consultees the opportunity to provide informed comments on the Scheme, the assessment process, and preliminary findings prior to the finalisation of the DCO Application and the ES. The Applicant sought the views of consultees on the information contained within the PEI Report, and there was an opportunity within the process up to submission of the DCO Application for both the EIA and the project design to have regard to comments received.

2.5.4. Following the statutory consultation set out above, the Applicant made a number of minor changes to the Order limits to seek improvements to the Scheme, having regard to feedback from the consultation, and in light of further work on the Scheme's design and environmental impacts. The Applicant wrote to affected consultees to notify them of the changes and invite comment for an above the minimum 28-day period between 3rd November and 13th December 2022.

2.5.5. The issues that have been raised through consultation and how these have been considered and addressed within the design evolution of the Scheme and the EIA are set out in each of the technical chapters (**Chapters 6** to **16** of the ES **[EN010131/APP/3.1].**

2.5.6. In addition, a project website provides up to date information on the Scheme (https://www.gateburtonenergypark.co.uk) and information has been provided proactively to local residents and local community groups, though newsletters at local venues and emails to resident groups, in addition to the statutory requirement to consult.

3. Site Selection and Design Evolution

3.1.1. **Chapter 3: Alternatives and Design Evolution** of the ES **[EN010131/APP/3.1]** presents an overview of the justification for selecting the Order limits, how the design has evolved since EIA Scoping, and a discussion of the reasonable alternatives considered.

3.1.2. A range of technical, environmental, and economic factors are considered when investigating and assessing any potential site for Nationally Significant Infrastructure Projects (NSIP) scale ground-mounted solar PV development. Key factors for consideration (in no particular order) include:

- Topography (ideally flat or with gently south facing slopes);
- Site size and pattern (fields of a large and regular shape);
- Access for construction and decommissioning;
- Landowners (a small number of willing landowners);
- Brownfield land; and
- Proximity to an available grid connection.

3.1.3. Following consideration of the above factors, the area in which the Scheme has been located was identified as having good potential for a large-scale ground mounted solar PV array.

3.1.4. The layout of the Scheme has evolved taking into consideration environmental effects, the Scheme's objectives and functionality, and feedback from stakeholders and the statutory consultation process. Key aspects include:

- The larger built elements of the Scheme, such as the substation and Battery Energy Storage System (BESS), are located in areas of reduced flooding and are screened by existing vegetation and topography;
- Provision of buffers and offsets from existing features including hedgerows, woodland, Public Rights of Way (PRoW), residential receptors, and heritage assets;
- New grassland and wildflower mixes under panels to enhance the range of fauna, enhancing biodiversity and providing resource for pollinators;

- Siting of infrastructure to avoid below ground archaeological features wherever possible to minimise impact on the setting of heritage assets; and
- Selection of a south-facing fixed tilt solar panel layout, which is the most common type of solar panel arrangement in the UK.
- During the Scoping phase, the area considered comprised several parcels of land within the Solar and Energy Storage Park **(ES Volume 2: Figure 3-1 [EN010131/APP/3.2])**, and four potential Grid Connection Corridors, with a total area of 1,654 ha. The area consulted upon during non-statutory consultation in January and February 2022 was the same as the area assessed during the Scoping Phase.

3.1.5. Following landowner discussions, consultation feedback, Agricultural Land Classification, environmental surveys and desktop analysis, the PEI Boundary

and layout **(ES Volume 2: Figure 3-2 [EN010131/APP/3.2)** was developed, with a single Grid Connection Corridor, comprising approximately 1,436 ha. The PEI Boundary comprised several parcels of land separated by areas of woodland, including the Solar and Storage Park and a single Grid Connection Corridor. This was a reduction in size from the Scoping Boundary. Statutory Consultation undertaken in June to August 2022 was based on the PEI Boundary, and following feedback, landowner discussions and ongoing engagement with consultees and stakeholders, the Order limits **(Figure 1)** were finalised. The Order limits comprises 652 ha of developable area (referred to as the 'Solar and Energy Storage Park') and 172 ha of the Grid Connection Corridor (including Site Access Works), totalling approximately 824 ha. This reduction in area was primarily to refine the Grid Connection Corridor and reduce the area of land considered necessary following review of additional survey information and further feasibility studies.

3.2. Shared Grid Connection Corridor

3.2.1. Given the proximity of the Scheme to the Cottam and West Burton schemes, the three projects have worked collaboratively on design development and environmental avoidance mitigation to maximise opportunities for reducing overall environmental and social effects, in particular on communities in proximity to the Grid Connection Corridor and on identified ecological and archaeologically sensitive areas.

3.2.2. Opportunities to combine the connection corridor areas have been explored and have resulted in the identification of a shared Grid Connection Corridor.

3.2.3. The Shared Grid Connection Corridor **(Figure 2)** comprises an area within which Gate Burton Energy Park will locate its 400kV connection to Cottam substation and the West Burton and Cottam solar projects will locate their connections to Cottam substation and, in part, to West Burton.

4. Scheme Description

4.1. The Order limits

4.1.1. The Order limits straddle the boundary between the counties of Nottinghamshire and Lincolnshire, within the districts of Bassetlaw and West Lindsey. The Order limits include land for solar PV arrays, BESS, Substation, Grid Connection Corridor, Site Access Works and Ancillary Infrastructure including landscaping and biodiversity measures, cabling, access tracks, and fences.

4.1.2. **Figure 1** shows the Order limits, which is the maximum area of land required for the construction, operation and maintenance, and decommissioning of the Scheme.

4.1.3. The landscape within the Order limits consists of agricultural fields interspersed with individual trees, woodlands, hedgerows, linear tree belts, farm access tracks, and local transport roads. The River Trent passes through the Grid Connection Corridor. The hedgerows within the Order limits are predominantly low and intermittent. The arable fields are large and generally of regular shape.

4.1.4. The landscape features immediately surrounding the Order limits comprise several small rural villages, including Gate Burton approximately 50m to the west, Knaith approximately 200m to the west, Marton approximately 500m to the south west, Willingham by Stow 700m to the east and Kexby 1.8km to the east. 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, 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.

4.1.5. There are no statutory designated nature conservations located within the Order limits. However, there are a number of statutory designated nature conservations sites located within a 2km radius of the Order limits **(ES Volume 2: Figure 8-1 [EN010131/APP/3.2])** including Ashton's Meadow Site of Special Scientific Interest (SSSI) located 540m to the west of the Order limits and Lea Marsh SSSI located 1.9km to the north west of the Order limits.

4.1.6. There are 15 non-statutory sites designated for nature conservation within 2km of the Order limits. These are designated as Local Wildlife Sites (LWS) for their biodiversity value at a county level and are known to have supporting value to a wide variety of protected and ecologically important species and/or habitats. The locations of these non-statutory sites are presented in **ES Volume 2: Figure 8-2 [EN010131/APP/3.2].** Cow Pasture Lane Drains LWS is located within the Order limits.

4.1.7. There are no scheduled monuments, listed buildings, registered parks and gardens, or conservation areas with the Order limits. There are seven scheduled monuments and 67 listed buildings within 3 km of the Order limits. There is one Conservation Area within 3km of the Order limits, the Gainsborough Riverside Conservation Area.

4.1.8. For designated heritage assets, where the Grid Connection Corridor is located beyond the 3km study area, a 500m study area has been applied. This is considered appropriate as the works within the Grid Connection Corridor comprise underground cabling. Within this 500m study area, there is one scheduled monument and three Grade II listed buildings.

4.1.9. The settings of designated heritage assets of the highest significance (scheduled monuments; Grade 1 and Grade II* listed buildings; and Registered Parks and Gardens) outside of these defined study areas have also been considered up to 5km from the Solar and Energy Storage Park boundary. There are nine scheduled monuments, four conservation areas and three Grade I and three Grade II* listed buildings within this 5km study area.

4.1.10. A 1km study area from the Solar and Energy Storage Park has been used for non-designated heritage assets, which has been judged as appropriate to identify known archaeological assets given the Scheme's nature, size and location. The 1km study area also includes the Grid Connection Corridor where it falls within the study area. There are a total of 130 non-designated heritage assets within the 1km study area.

4.1.11. For non-designated heritage assets, where the Grid Connection Corridor is located beyond the 1km study area, a 500m study area has been applied. This is considered appropriate as the works within the corridor comprise underground cabling. A total of 57 non-designated heritage assets within the 500m study area for the Grid Connection Corridor.

4.1.12. The majority of the Solar and Energy Storage Park is located within land at low risk of flooding (less than 1 in 1,000 annual probability). There are some areas of higher risk associated with local watercourses and drainage systems. The Grid Connection Corridor is located predominately within land at high risk of flooding (more than 1 in 100 annual probability).

4.1.13. There is a network of public rights of way (PRoW) within the Order limits and across the surrounding area. These PRoW are shown on **ES Volume 2: Figure 2-2 [EN010131/APP/3.2].**

4.2. Description of the Scheme

4.2.1. The Scheme comprises solar PV panels, Battery Energy Storage System (BESS) infrastructure and an on-site substation. The PV panels will convert the sun's energy into electricity for storage onsite and export to the National Grid via an underground cable.

4.2.2. Unlike a conventional power station, the environmental impacts of a solar farm are not a direct result of the amount of electricity it can generate. For this reason, it is not proposed that the Gate Burton Energy Park is restricted by imposing a limit on how much electricity it can generate.

4.2.3. Instead, the Scheme seeks a development consent that would restrict the aspects of the solar farm which have potential environmental impacts – such as the height of the solar panels, dimensions of infrastructure such as the BESS and on-site substation, and where within the Order limits solar panels would be located. These are known as the **'Outline Design Principles' [EN010131/APP/2.3]**. This approach also ensures the Gate Burton Energy Park will be able to generate electricity as efficiently as possible, using technology which is constantly improving and may allow greater amounts of electricity to be generated in future within the existing Outline Design Principles.

4.3. Scheme Components

4.3.1. The Scheme will consist of the principal infrastructure described below and presented in **Chapter 2: The Scheme [EN010131/APP/3.1]**. To ensure that the likely significant environmental effects of the Scheme are no worse than those assessed in the EIA, the DCO includes requirements (in Schedule 2) that require the Scheme to be built and operated within the stated **Outline Design Principles [EN010131/APP/2.3]**. The location of the Scheme elements is also controlled via the DCO (in Schedule 1) **[EN010131/APP/6.1]** describes the elements of the Scheme (divided into numbered works packages) and the **Works Plans [EN010131/APP/5.2]** show the maximum areas within which those Scheme elements are able to be located.

4.3.2. A number of elements of detailed design for the Scheme cannot be confirmed until the tendering process for the design and construction of the Scheme has been completed. For example, due to the rapid pace of technological development in the solar PV and energy storage industry, the Scheme may utilise technology which does not currently exist and therefore sufficient flexibility needs to be incorporated into the Application.

4.3.3. To address this, a 'Rochdale Envelope' approach is used, which means the worst case has been assessed, and as a result there is confidence that if the Scheme is built at the maximum Outline Design Principles or at sizes and areas within the maximum Outline Design Principles, the environmental effects will be no greater than those reported in the ES.

4.3.4. The assessments within **Chapters 6** to **15** of the ES **[EN010131/APP/3.1]** have assessed the reasonable "worst-case", or in other words, the maximum **Outline Design Principles [EN010131/APP/2.3].**

4.3.5. The Outline Design Principles allow for an element of flexibility in the Scheme design. An Indicative Site Layout Plan **(Figure 3)** has been created to provide a visual representation of a tangible example of a scheme that could be constructed within the Outline Design Principles. The Scheme elements are

discussed below, and indicative images of the Scheme equipment are presented in Plate 1.

4.3.6. The location of the Scheme components within the Order limits has been carefully considered and restricted to specific areas, in order to minimise the impacts of those components. The Scheme will comprise the following components:

- **PV Panels**: these convert sunlight into electrical current. The maximum highest part of the solar PV panels will be 3.5m above ground level. PV Panels and PV Mounting Structures combine to form PV Tables;
- **Supporting Infrastructure** (inverters, transformers, and switchgear): these are known as 'Power Conversion Units' and convert the direct current to alternating current and stepping up the voltage;
- **On-site Substation**: will include transformers, switchgear and metering equipment required to facilitate the export of electricity to the National Grid. It will have a maximum footprint of 220m x 130m and 13m in height;
- **Onsite Cabling**: connects the PV modules and BESS to inverters, and the inverters to the transformers on-site;
- **BESS:** designed to provide peak generation and grid balancing services to the electricity grid. It will do this by allowing excess electricity generated from the solar PV panels to be stored in batteries and dispatched when required;
- **Grid Connection Corridor:** an underground approximately 7.5km 400kV electrical connection to the National Grid Substation at Cottam Power Station;
- **Fencing and Security Measures**: a security fence will enclose the operational areas of the Solar and Energy Storage Park and will be a maximum of 3m in height, with closed circuit television (CCTV) systems deployed around the perimeter which are anticipated to be 5m in height;
- **Access Tracks**: will be established within the Solar and Energy Storage Park and are typically 3.5m to 6m wide compacted stone tracks. Where possible, existing tracks will be used and upgraded;
- **Landscaping and Biodiversity enhancement**: involves new planting, field boundary enhancement and planting of seed mixes within the Solar and Energy Storage Park; and
- **Temporary Construction Compounds**: construction compounds will be established as well as mobile welfare units and smaller compound areas together with temporary roadways to facilitate access to all land within the Solar and Energy Storage Park.

Typical solar PV panels

Typical string inverter (image reproduced courtesy of Huawei)

Plate 1 Images to show the type of equipment which may be used within the Scheme

5. Construction

5.1. Construction Programme

5.1.1. The construction of the Scheme is expected to take place over a 24 to 36 month period. Construction is anticipated to start in Q1 2025, with operation anticipated to commence around Q1 2028.

5.2. Construction Activities

5.2.1. Construction activities will include:

- **Solar and Energy Storage Park Construction**:
  - Installation of access road, compounds, fencing and security;
  - Import of components to site;
  - Establishment of access tracks within the site;
  - Diversion or undergrounding of 11kV overhead lines where required;
  - Piling and erection of module mounting structures;
  - Mounting of modules;
  - Trenching and installation of electric cabling; and
  - Installation of Power Conversion Units.
- **Construction of Electrical Infrastructure:**
  - Site preparation and civils for the BESS Compound;
  - Trenching and installation of distribution cables;
  - Pouring of the concrete foundation base;
  - Import of components to site. Cranes will be used to lift the components into position; and
  - Installation of the BESS.
- **Construction of Grid Connection Corridor:**

- Establishment of compound areas and running tracks;
- Stripping of topsoil in sections;
- Trenching in sections;
- Storage and capping of soil;
- Installation of construction drainage with pumping where necessary;
- Sectionalised approach of duct installation;
- Excavation and installation of jointing pits;
- Cable joint installation;
- Cable pulling;
- Implementation of crossing methodologies (e.g. horizontal directional drilling) for watercourses (including the River Trent), infrastructure (including roads and rail), and sensitive habitats;
- Testing and commissioning; and
- Site reinstatement and habitat creation.

- **On-site Sub-station and BESS Construction:**
  - Diversion of existing 11kV overhead power line(s);
  - Topsoil strip and ground levelling;
  - Groundworks including piling and drainage installation;
  - Construction of foundations;
  - Installation of electric cabling;
  - Import of components to site;
  - Installation of bus-bar, circuit breaker, isolators, earthing switch and transformers;
  - Installation of battery, transformers, inverters and switchgear; and
  - Installation of office, storage areas and warehouse.

- **Testing and Commissioning**
  - Commissioning of the Scheme will include testing and commissioning of the process equipment. Commissioning of the solar PV infrastructure will involve mechanical and visual inspection, electrical and equipment testing, and commencement of electricity supply into the grid. Individual sub-systems will be commissioned separately, with each having its own procedures and prerequisite lines, and it may be necessary to commission these elements separately or at the same time, depending on the end technology utilised at the time of construction.

5.3. Construction Staff

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

5.4. Construction Hours of Work

5.4.1. Construction working hours will run from 07:00 to 19:00 Monday to Friday, and 09:00 to 13:00 on Saturday in the summer. Winter working hours will run from 08:00 to 18:00 Monday to Friday, and 09:00 to 13:00 Saturday.

5.4.2. Some works may need to occur out of these hours/times due to activities requiring to be undertaken continuously (such as horizontal directional drilling

(HDD) and cable jointing). Where work outside of times is necessary prior notification will be provided to the relevant local planning authority.

5.5. Construction Access and Traffic

5.5.1. During construction, the Solar and Energy Storage Park will have four main site entrances: along the A156 Gainsborough Road, Kexby lane North, Kexby Lane South, and Marton Road **(Figure 3)**.

5.5.2. In order to access all of the construction site, a network of tracks will be used, including:

- New compacted stone tracks, typically 3.5m to 6m wide;
- An asphalt road up to 8m width from the A156 to the substation and BESS via the construction compound; and
- Upgraded existing access tracks.

5.5.3. 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. It is estimated that 70% of construction staff and 62% of HGVs/LGVs will use the primary site access, located via the A156 Gainsborough Road.

5.5.4. For the Grid Connection Corridor, there would be up to 16 HGVs, 12 LGVs and one minibus service for construction workers per day, representing 58 movements. Further detail of the anticipated worst case scenario traffic numbers is described in **Chapter 13: Transport and Access [EN010131/APP/3.1]** and **Appendix 13-D: Transport Assessment [EN010131/APP/3.3].**

5.5.5. Temporary car parks will be provided within the compound areas. Construction workers will then be transported around site via four wheel drive vehicles and mini-bus.

5.6. Construction Controls

5.6.1. The construction phase will be subject to management documents which will limit and control activities, as secured through the DCO, comprising:

- **Framework Construction Traffic Management Plan (CTMP) ES Volume 3: Appendix 13-E [EN010131/APP/3.3])**;
- **Framework Construction Environmental Management Plan (CEMP) [EN010131/APP/7.3];** and
- **Outline Design Principles [EN010131/APP/2.3].**

5.7. Operation

5.7.1. During the operational phase, activity within 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. Given the anticipated 60-year operational life of the Scheme, there will be a requirement for periodic replacement of some or all of the Solar and Energy Storage Park elements, and maintenance and servicing (including inspection and refurbishment). Further detail is provided in the Framework Operational Environmental Management Plan (OEMP) **[EN010131/APP/7.4].**

5.7.2. Operational phase access points are shown on **Figure 3.** It is anticipated that there will be up to fourteen permanent FTE staff during the operational phase working on a site and flexible office basis. Operational staff are anticipated to travel to site by four-wheel drive vehicle or medium/large van. There are expected to be approximately 3-4 visitors per week for deliveries, and periodic replacement of any components.

5.8. Decommissioning

5.8.1. When the operational phase ends, the Solar and Energy Storage Park will require decommissioning. All PV modules, mounting poles, inverters and transformers would be removed and recycled or disposed of in accordance with good practice and market conditions at the time. Buried medium voltage cables would either be removed or left in situ. The majority of the Solar and Energy Storage Park would be returned to the landowner after decommissioning and will be available for its original use.

5.8.2. The future of the substations and associated control buildings would be agreed with the relevant Local Planning Authority prior to commencement of decommissioning.

5.8.3. Decommissioning is expected to take between 24 and 48 months. A Decommissioning Environmental Management Plan (DEMP) will be prepared prior to decommissioning and will be secured through the DCO. The detailed DEMP(s) will be produced in line with the Framework DEMP **[EN010131/APP/7.5]** submitted with the Application.

6. Assessing Environmental Effects

6.1. Topics Assessed

6.1.1. **Chapters 1** to **5** of the ES **[EN010131/APP/3.1]** provide an introduction to the policy and legislative context, a description of the Order limits and surroundings, an overview of the Scheme and alternatives that were considered during the design process, an overview of consultation timelines, and the approach and methodology to the EIA.

6.1.2. The following technical chapters have been produced as part of the ES **[EN010131/APP/3.1]:**

- **Chapter 6:** Climate Change;
- **Chapter 7:** Cultural Heritage;
- **Chapter 8:** Ecology and Nature Conservation;
- **Chapter 9:** Water Environment;
- **Chapter 10:** Landscape and Visual Amenity;
- **Chapter 11:** Noise and Vibration;
- **Chapter 12:** Socio-Economics and Land-Use;
- **Chapter 13**: Transport and Access;
- **Chapter 14:** Human Health and Wellbeing; and
- **Chapter 15:** Other Environmental Topics.

6.1.3. **Chapter 16: Effect Interactions [EN010131/APP/3.1]** documents the effect interactions that lead to combined effects on sensitive receptors.

6.1.4. **Chapter 17: Summary of Significant Effects** of the ES **[EN010131/APP/3.1]** presents a brief summary of the ES and presents the residual significant effects remaining following the implementation of mitigation.

6.2. Environmental Statement Terminology

6.2.1. To enable comparison between technical topics and to aid understanding of the ES findings, standard terms are used wherever possible to describe the relative significance of effects (i.e. '**major**', '**moderate**', '**minor**', and '**negligible**'). The effects are also described as being adverse or beneficial. Where the guidance and/or quality standards for each technical discipline result in deviations in the standard assessment methodology, these are described in the relevant chapters.

6.2.2. Each of the technical chapters within the ES **[EN010131/APP/3.1]** provides further description and definition of the significance criteria relevant to each topic. Where possible, this has been based upon quantitative and accepted criteria (for example, noise assessment guidelines), together with the use of professional judgement to establish to what extent an effect is significant.

6.2.3. Typically, effects that are considered to be **negligible** or **minor** are judged to be '**not significant**', whereas those that are **moderate** or **major** are '**significant**'. As the design of the Scheme has evolved, the Applicant has worked with environmental specialists to ensure the design avoids or reduces environmental effects on receptors wherever possible through the use of embedded mitigation measures (meaning measures that form part of the design or methods for construction or operation), such as the use of a Construction Environmental Management Plan (CEMP). Following the incorporation of embedded mitigation, where the EIA predicts a significant adverse effect on one or more receptors, consideration is given to whether there are further additional mitigation measures which could avoid or reduce the effect further, or to reduce the likelihood of it happening. These measures are taken into account in the EIA and assessment of effects of the Scheme. Identified embedded and additional mitigation is secured through the DCO, should it be granted, and this is made clear in the ES.

6.3. Findings of the Environmental Statement

6.3.1. An assessment of the environmental effects of the Scheme during its construction, operation (including maintenance), and decommissioning has been completed for each of the topics identified in Section 6.1 above.

6.3.2. The conclusions on the likely significant environmental effects of the Scheme are described within the ES **[EN010131/APP/3.1]**. This section provides a brief summary of the overall findings of the report.

6.4. Climate Change

6.4.1. **ES Volume 1, Chapter 6: Climate Change [EN010131/APP/3.1]** presents the findings of an assessment of the potential significant effects of the Scheme on climate change (e.g. greenhouse gas emissions from the construction, operation, and decommissioning of the Scheme). The resilience of the Scheme to projected future climate change impacts is also assessed through a Climate Change Resilience Review which forms part of the Climate Change chapter.

Baseline and Context

6.4.2. It is the duty of the UK Government to achieve 'net zero' carbon emissions by 2050. 'Net Zero' refers to achieving net zero carbon dioxide emissions from electricity generation, industry, transport and domestic sources by balancing greenhouse gas (GHG) emissions with greenhouse gas removal, or simply eliminating emissions altogether. The physical impacts of climate change are accelerating and pose a threat to the environment, health, housing, business operations, and financial earnings through extreme weather events such as storms, floods and droughts. Understanding the nature of these risks will allow new facilities to be designed in a manner which increases resilience and takes advantage of opportunities from the outset, thereby reducing costs in the future.

6.4.3. For the lifecycle GHG impact assessment, the future baseline for GHG emissions is a 'business as usual' scenario whereby the Scheme is not implemented. The land use within the Order limits currently has minor levels of associated GHG emissions, it is anticipated that these emissions will not be material in the context of the overall Scheme. Therefore, for the purposes of the lifecycle GHG impact assessment, a GHG emissions baseline of zero is applied.

6.4.4. The receptor for the review of climate change resilience is the current climate in the location of the Scheme. Baseline conditions were identified for the 30-year climate period of 1981-2010 from the nearest Met Office station to the Scheme, RAF Scampton. The Met Office historic 10-year averages for the England East and North East region identify gradual warming between 1972 and 2021, with increased rainfall.

6.4.5. The future baseline for climatic conditions is expected to differ from the present-day baseline. For the purpose of this assessment, projections for pre-defined 30-year periods for a number of average climate variables (e.g.

temperature, precipitation and cloud cover) have been obtained and analysed in **Chapter 6: Climate Change** of the ES **[EN010131/APP/3.1]**.

Assessment of Effects

6.4.6. Overall, a net GHG emissions saving will be achieved as a result of the Scheme. Electricity generation from solar energy is a less GHG intensive form of energy generation than the national grid average, which includes energy generation from a range of sources, including fossil fuels.

6.4.7. The greatest GHG impacts occur during the construction phase as a result of the manufacture of the materials and components required. Other sources of emissions include water, energy, and fuel use for construction activities, including fuel consumed by construction plant.

6.4.8. GHG emission sources during operation include operational energy use, (e.g. for auxiliary services and standby power), worker commuting and maintenance activities.

6.4.9. The greatest GHG impacts during the decommissioning phase will be as a result of the transportation of materials. Other sources of emissions during decommissioning include worker commuting, fuel use, waste recycling and disposal, and water use.

6.4.10. The Scheme has significantly lower emissions compared to the UK's carbon budget. However, the ongoing operation of the Scheme will inevitably result in some residual emissions by 2050, the vast majority of these will be operational emissions. The Scheme will achieve substantial emissions reductions compared to the without-project baseline, i.e. in a scenario in which the Scheme does not go ahead and the power it generates is provided by a higher carbon generator.

6.4.11. It is considered that the overall GHG impact of the Scheme is **beneficial** and **significant**.

6.4.12. Future climate change projections have been reviewed and the sensitivity of assets have been examined. As a result of the proposed resilience measures, **no significant** climate change risks during the construction, operation or decommissioning phases have been identified.

Mitigation Measures

6.4.13. A number of embedded construction mitigation measures are included within the Scheme, as set out within the **Framework Construction Environmental Management Plan (CEMP) [EN010131/APP/7.3]**. Specific embedded mitigation measures include increasing the recyclability of materials, minimising the creation of waste and maximising the use of alternative materials with lower embodied carbon, and encouraging the use of lower carbon modes of transport.

6.4.14. Climate change resilience methods have been included within the embedded mitigation measures in the Scheme design, particularly in relation to flood risk. The design of drainage systems will ensure there will be no significant increases in flood risk downstream during storms, including an allowance for

climate change. The specific flood risk impacts and associated mitigation measures, such as sustainable drainage systems, are discussed in more detail in **Chapter 9: Water Environment** of the ES **[EN010131/APP/3.1]**.

6.4.15. Climate change resilience measures required during construction and decommissioning are listed within the **Framework CEMP [EN010131/APP/7.3]** and **Framework Decommissioning Environmental Management Plan [EN010131/APP/7.5]**. These include measures associated with protecting the Scheme from increased flood and heatwave risk on the construction and decommissioning sites.

6.4.16. No additional mitigation measures or enhancements are required.

Cumulative Effects

6.4.17. It is not possible to define a study area for the assessment of cumulative effects of GHG emissions nor to undertake a cumulative effects assessment, as the identified receptor is the global climate and effects are therefore not geographically constrained. As the Climate Change Resilience Review is only concerned with the assets of the Scheme and a broader consideration of existing interdependent infrastructure, a cumulative assessment is not required.

6.5. Cultural Heritage

Baseline and Context

6.5.1. **Chapter 7: Cultural Heritage** of the ES **[EN010131/APP/3.1]** considered potential impacts on designated and non-designated heritage and archaeological assets. Heritage assets include buildings, monuments, sites, places, areas or landscapes identified as having a degree of significance due to their heritage interest.

6.5.2. The Scheme occupies an area which has largely not been subject to previous archaeological study. There are no World Heritage Sites, Conservation Areas, Registered Park and Gardens, or Registered Battlefields located within the Order limits or the initial 3km study area. There are no designated heritage assets located within the Order limits.

6.5.3. Where the Grid Connection Corridor is located beyond the 3km study area, a 500m study area has been applied for designated heritage assets. The settings of designated heritage assets of the highest significance (scheduled monuments; Grade I and Grade II* listed buildings; and Registered Parks and Gardens) outside of these defined study areas have also been considered, up to 5km from the Solar and Energy Storage Park boundary.

6.5.4. There are no scheduled monuments located within the Order limits. There are six scheduled monuments located within the 3km study area for the Solar and Energy Storage Park, one scheduled monument within the 500m study area for the Grid Connection Corridor, and nine located within the wider 5km study area.

6.5.5. There are no conservation areas located within the Order limits, the 3km study area for the Solar and Energy Storage Park, or the 500m study area for the Grid Connection Corridor. There are four conservation areas located within the wider 5km study area.

6.5.6. There are no listed buildings located within the Order limits. There are 65 listed buildings located within the 3km study area for the Solar and Energy Storage Park, comprising four Grade I listed buildings, four Grade II* listed buildings and 57 Grade II listed buildings. There are two Grade II listed buildings located within 500m study area for the Grid Connection Corridor, three Grade I and three Grade II* listed buildings located within the 5km study area.

6.5.7. There are a total of 31 non-designated heritage assets recorded within the Solar and Energy Storage Park; 9 non-designated heritage assets recorded within the Grid Connection Corridor; 130 non-designated heritage assets located within the 1km study area for the Solar and Energy Storage Park; and a total of 57 non-designated heritage assets located within the 500m study area for the Grid Connection Corridor.

6.5.8. The assessment has been informed through a desk study, a geophysical survey and targeted trial trenching. The geophysical survey was undertaken between February and October 2022, and the trial trenching was undertaken between July and October 2022.

Assessment of Effects

6.5.9. It is not anticipated that there will be any significant impacts through change to the setting upon any built heritage assets during construction. No additional or increase of significant effects to setting are considered likely through the operational phase.

6.5.10. Impacts arising from decommissioning activities would be temporary and the duration would be shorter than the impacts during construction. The impacts therefore would not be greater than those reported during construction. It is also anticipated that the effects on the setting of heritage assets as a result of the physical presence of the Scheme would be limited to the lifespan of the proposed Scheme. When removed during the decommissioning phase the impact will be reversed and the land returned to its previous use. The reported significance of effect would be significantly lowered or removed completely if the Site is returned to baseline conditions.

6.5.11. During construction, the physical impacts of the Scheme on ten non-designated archaeological assets have been assessed to be **Moderate adverse** which is considered **significant**. With the implementation of additional mitigation (see 'Mitigation Measures') the effect is reduced to **Minor adverse,** and is therefore considered **not significant.** There are no significant effects to any other heritage assets.

6.5.12. It is not expected that the operation of the Scheme will result in any further intrusive activities and as such no impact to the buried archaeological assets is anticipated during this phase.

6.5.13. A well-designed decommissioning scheme would not have any impact beyond the already-disturbed footprint of the Scheme and will take into account areas of archaeological deposits that have been preserved in situ; therefore, it is not anticipated that decommissioning activities would have a direct physical impact upon archaeological remains.

Mitigation Measures

6.5.14. Embedded mitigation measures already incorporated into the design have been taken into account in the assessment of residual effects in the section above.

6.5.15. Embedded mitigation measures identified as part of the development of the Scheme include:

- The use of panel free buffer zones within the settings of heritage assets, including a 100m buffer area to the east of the non-designated Gate Burton park and a panel exclusion zone between the park boundary and Burton Wood.
- A buffer area around the non-designated Clay Farm and Siding Farm;
- A buffer area in the vicinity of Heynings Priory scheduled monument, to retain its connection with a probably associated building identified in the geophysical survey in an adjacent field and to retain its landscaped setting within a ‘bowl’ of lower-lying boggy ground;
- Removal of Solar PV Panels from the Scheme design in two fields, enabling preservation in-situ of archaeological remains;
- Appropriate and sensitive screening to minimise the visual intrusion of the Scheme, while avoiding, as far as practicable, obscuring or intruding upon important views and relationships between heritage assets or significantly altering historic design intention; and
- Identification of ‘Avoidance Areas’ for the use of HDD instead of open cut trenching within the Grid Connection Corridor.

6.5.16. Additional mitigation measures for ten heritage assets have been identified. These would comprise excavation and recording (strip, map and record) of archaeological remains in advance of construction activities and have been agreed in principle with Archaeological Advisors to Lincolnshire County Council and Nottinghamshire County Council. No additional mitigation is proposed for the operation and decommissioning of the Scheme.

6.5.17. Enhancement measures include the retention of selected field boundaries, planted during the construction phase, that have historic precedent as indicted on relevant Enclosure, tithe and OS maps. These boundaries would enhance and reinstate elements of the historic landscape character, such as the pattern of 19hth century enclosures that were lost due to the boundary removals in the 20th century.

Cumulative Assessment

6.5.18. The Stow Park Road Residential Development (Ref. 141141) partially extends into the Scheme boundary. This development will contribute to the impact identified on the non-designated heritage assets (MLI52472; AEC013) through additional physical impacts to the asset. However, it is not considered that the combined impact of these projects, either individually or together in combination with the Scheme, would raise the assessed level reported. No cumulative effect is identified.

6.5.19. The proposed Cottam Solar Project (Ref. EN010133) and West Burton Solar Project (Ref. EN010132) will contribute to the impact identified on the Grade I listed Church of St Mary at Stow (1146624) through additional development within its wider landscape setting. However, it is not considered that the impact of these projects, either individually or together in combination with the Scheme, would raise the assessed level of impact which is **minor adverse** and **not significant**. Therefore, no cumulative effect is identified.

6.6. Ecology and Nature Conservation

Baseline and Context

6.6.1. **Chapter 8: Ecology and Nature Conservation** of the ES **[EN010131/APP/3.1]** presents the findings of an assessment of the effects of the Scheme on ecology and biodiversity within the Order limits and surrounding area. The assessment considers effects on designated sites, habitats and protected species.

6.6.2. Ecological receptors considered include species and habitat that are important at an international, national, and local level (i.e. how rare and important the species and habitat are). The majority of the Order limits consist of arable land, with areas of grassland, woodland and hedgerows throughout.

6.6.3. There are two sites statutorily designated for their biodiversity value within the study area (refer **Chapter 8** of the ES **[EN010131/APP/3.1]).** There are 15 sites non-statutorily designated for their biodiversity value within the study area.

6.6.4. The following protected species surveys were carried out following a Phase 1 Habitat survey: terrestrial habitats and flora, hedgerows, aquatic macrophyte and macro-invertebrate, great crested newt (GCN), reptiles and other amphibians, breed birds, wintering birds, bats, riparian mammals and badger.

6.6.5. The ecological assessment was undertaken and reported with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines (Ref 4) for EIA in the UK and Ireland. All designated sites and protected and/or notable habitat and species present within the study area were identified through a desk-based study. A range of further surveys were

also undertaken to characterise the baseline environment within the area affected by the Scheme and their potential impacts were then assessed.

Assessment of Effects

6.6.6. The **Biodiversity Net Gain Assessment is** provided in **[EN010131/APP/7.9].** Whilst there is the potential for effects upon ecological receptors during construction, mitigation measures designed to prevent adverse impacts upon ecological receptors will be embedded in the Scheme, including measures within the **Framework CEMP [EN010131/APP/7.3]** and **Outline Landscape and Ecological Management Plan (OLEMP) [EN010131/APP/7.10]**. These include the enhancement and creation of habitat to mitigate and compensate for habitat loss during construction and operation.

6.6.7. The loss of sections of hedgerow, causing a short-term adverse effect on this habitat type, will be temporary, and the hedgerows will be restored post-construction. The potential impact has been assessed as **minor adverse** and is therefore **not significant.**

6.6.8. Impacts on Skylark breeding habitat are potentially significant therefore additional mitigation measures have been incorporated within the Scheme design to minimise these effects. Sufficient areas of habitat creation including a number of Skylark plots, alongside extensive habitat enhancements have been incorporated to offset the impact of loss of arable farmland. In addition, wide margins will be left alongside numerous internal access tracks to provide nesting opportunities and foraging. The effect on Skylark was assessed as **moderate adverse** which is considered **significant**. Once these additional mitigation measures have been applied, the impacts to the Skylark population are reduced to **minor adverse to negligible effect** which is **not significant.**

6.6.9. No impacts and effects, arising from operation or decommissioning of the Scheme have been identified at this stage. There are a number of indirect beneficial impacts, including increases in permanent habitat of greater floristic diversity, increased connectivity, shift of drainage regime to a more natural water-table, and areas of natural regeneration providing enhanced nesting and foraging habitats for species.

6.6.10. The Scheme will deliver significant enhancements for biodiversity in line with the national and local policies and their biodiversity priorities, including the following enhancement measures:

- Natural regeneration of areas surrounding woodland and enhanced planting will allow the expansion of existing woodlands and provide further natural buffers to ancient woodlands. The expansion of existing woodlands will have a **moderate beneficial, significant effect.**
- New hedgerows will be established to provide habitat, forming wildlife corridors and re-enforcing existing ones. These measures will greatly enhance the diversity of hedgerows and will have a **moderate beneficial, significant effect.**

- Scrub will be established adjacent to hedgerows to increase the habitat and enhance biodiversity.
- Species-rich grassland will be established across the Scheme, under the PV Panels and in set aside areas. These measures will have a **minor beneficial, not significant** effect on terrestrial invertebrates, reptiles and amphibians.
- Planting of gaps in hedgerows, creation of new hedgerows, tree planting and conversion of arable land to grassland habitats will have a **moderate beneficial, significant effect** on breeding birds.
- A range of artificial bird and bat boxes will be installed across the Site to increase the availability of nesting and roosting features, and enhance the value of the woodlands for these species' groups.
- Habitat piles and hibernacula will be construction throughout the Scheme to provide refuge and hibernation opportunities for amphibians and reptiles.

6.6.11. The above measures will provide increased foraging opportunities for wintering birds, and therefore will have a **minor beneficial, not significant** effect on the species. The measures will also provide increased nesting and foraging opportunities for breeding birds which will have a **moderate beneficial, significant** effect on the species.

6.6.12. The planting of gaps in hedgerows, tree planting and conversion of arable land to grassland habitats will be of benefit to commuting, foraging and roosting bats, badger, and other mammals, these effects will be **minor beneficial and not significant.**

6.6.13. Impacts on biodiversity features during decommissioning are likely to be the same as construction. Field surveys would be required in advance of decommissioning to ensure that impacts on ecological features are identified to ensure avoidance and, if not feasible, mitigation.

6.6.14. With the application of the additional mitigation measures, **no significant adverse** effects have been identified during construction, operation or decommissioning of the Scheme. With the consideration of the enhancement measures set out above, the Scheme has the potential to result in **significant, beneficial effects** to broad-leaved woodland, hedgerows, and breeding birds, particularly farmland birds associated with hedgerows and field margins.

Mitigation Measures

6.6.15. Embedded mitigation measures include, but are not limited to the following:

- Avoidance and buffers from key habitat features;
- Areas where the cable crossed using underground techniques (e.g. horizontal directional drilling (HDD) techniques in order not to disturb above ground habitats or watercourses;
- Vegetation clearance will be undertaken in advance of construction and at an appropriate time of year so as to avoid the nesting bird period and incidental injuring or killing of reptiles and amphibians;
- Avoidance of seasonal migration timings for key fish species if required;
- Use of appropriate lighting that will not impact the surrounding habitats and species; and

- Fencing to be implemented early in the construction phase to prevent construction activity in proximity to peripheral habitats and retained habitats.

6.6.16. A detailed CEMP will be in place during construction and a detailed DEMP during decommissioning, as secured through the DCO, to reduce the effects on habitats, designations, and species.

6.6.17. An **OLEMP [EN010131/APP/7.10]** has been provided as part of the DCO Application. This presents embedded mitigation measures within the design of the Scheme for the protection and enhancement of ecological receptors, against which a detailed Landscape and Ecology Management Plan will be brought forward.

6.6.18. Additional mitigation measures are required to avoid significant adverse effects on breeding Skylark. Areas of habitat creation, alongside extensive habitat enhancements, have been incorporated to offset the impact of loss of arable farmland for breeding Skylark, as well providing extensive benefits for other Important Ecological Features (IEFs) and wider biodiversity. Skylark plots are located in **Figure 3.** With the application of these mitigation measures, the potential impact to habitat loss is **minor adverse** to **negligible** which is **not significant** to the Skylark population.

6.6.19. In addition, the Applicant is committed to achieving biodiversity net gain. The embedded mitigation in the Scheme includes areas of habitat creation and enhancement throughout the Site to provide benefit to the local wildlife. A **Biodiversity Net Gain Assessment [EN010131/APP/7.9]** has been submitted with the DCO Application.

Cumulative Effects

6.6.20. Other proposed plans and projects in proximity to the Scheme were reviewed for potential overlapping interactions of ecological receptors. The West Burton Solar Project and Cottam Solar Project have the potential to result in cumulative effects with the Scheme, where the overall loss of arable farmland has the potential to reduce nesting and foraging habitat for Skylark. All other schemes considered in the cumulative assessment avoid spatial and temporal interaction with the Scheme and will not have a significant adverse effect on ecological receptors in combination.

6.6.21. Both West Burton Solar Project and Cottam Solar Project have identified ground nesting birds, in particular Skylark, as requiring mitigation for the loss of arable farmland for breeding. It is acknowledged that mitigation proposals will be included in the ES for the projects, and therefore it is assumed that neither project will result in residual adverse effects. Therefore, there will be **no significant** cumulative effect arising from the three projects on Skylark populations as a result from loss of arable farmland.

6.7. Water Environment

Baseline and Context

6.7.1. **Chapter 9: Water Environment** of the ES **[EN010131/APP/3.1]** assesses the impacts on the water environment from the construction, operation, and decommissioning of the Scheme. The water environment includes consideration of surface water bodies in the vicinity of the Order limits (rivers, streams, ditches, canals, lakes and ponds), groundwater bodies, as well as flood risk (which also includes consideration of the risk of flooding to the Scheme) and drainage. The assessment of impacts on waterbodies considers changes in water quality, hydromorphology, and water resources.

6.7.2. The topography of the study area, approximately 1km from the Order limits, is generally flat and is shaped by the River Trent and its floodplain, resulting in a gentle slope from north-east to south-west across the Order limits. The land use within the study area is generally a mosaic of arable farmland, with patches of woodlands, drains and ponds scattered across the area.

6.7.3. The Order limits are located between the Witham Management Catchment within the Anglian River Basin Management Plan (RBMP) and the Lower Trent and Erewash Management Catchment within the Humber (RBMP). There are six Water Framework Directive (WFD) surface waterbody catchments within the study area, including the Trent from Carlton-on-Trent to Laughton Drain, River Till, Tributary of the Till, Marton Drain Catchment, Seymour Drain Catchment, and the Skellingthorpe Main Drain waterbody.

6.7.4. In addition to the WFD watercourses, there are several undesignated tributaries of these waterbodies present within the study area, along with drains, ditches and ponds. These are predominantly unnamed agricultural drains, with the watercourses within the study area either being man-made or extensively modified, with limited potential for hydromorphological improvement.

6.7.5. There are numerous standing waterbodies located across the study area, including Littleborough Lagoon and Coates wetland. Aside from these larger waterbodies and wetlands, there are numerous small agricultural ponds located across the entire study area.

6.7.6. The majority of the Solar and Energy Storage Park lies within land at low risk of flooding (less than 1 in 1000 annual probability). Some areas of higher risk are present in areas associated with the watercourses (1 in 100 and 1,000 probability). The majority of the Grid Connection Corridor lies within land at high risk of flooding (1 in 100 or greater annual probability) associated with the River Trent and its floodplain. However, this watercourse is bordered by flood defences along its entire length through the Scheme.

Assessment of Effects

6.7.7. The greatest risks of adverse impacts are in the vicinity of the watercourses, waterbodies and numerous small ponds present in the study area which may be directly affected. With embedded mitigation in place and standard good industry practice measures implemented through the **Framework CEMP [EN010131/APP/7.3],** the effect on all water receptors during the construction phase is anticipated to be **neutral** or **slight adverse**, and **not significant**.

6.7.8. During the operational phase, there is the potential for adverse impacts on watercourses from run-off and spillages from new permanent hardstanding and maintenance activities, if not properly mitigated. There is the potential for impacts on hydrology to occur from alterations to natural flow pathways, and an increase in diffuse pollutants received by waterbodies. During the operational phase, the Scheme would apply good industry standard practice measures and adhere with environmental legislation. The impact on all water receptors is anticipated to be **neutral** or **slight adverse**, and **not significant.**

6.7.9. Potential impacts from the decommissioning phase are similar in nature to those during construction, as some groundwork would be required to remove infrastructure installed. Ducting beneath watercourses is likely to remain in-site but the cables removed. A **Framework DEMP [EN010131/APP/7.5]** accompanies the DCO Application and identifies measures to prevent pollution during this phase of the development.

Mitigation Measures

6.7.10. The Scheme has been designed, as far as possible, to avoid and minimise impacts and effects on the water environment through the process of design development, and by embedding measures such as watercourse offsets and avoidance areas into the design of the Scheme. The Flood Risk Assessment (FRA (**ES Volume 3: Appendix 9-D [EN010131/APP/3.3]**) includes a full review of the flood risk within the Order limits and identifies measures to mitigate flood risk from all sources.

6.7.11. A number of standard and embedded measures, identified in the **Framework CEMP [EN010131/APP/7.3]** will be implemented to mitigate the temporary effects on the water environment. An **Outline Drainage Strategy (ES Volume 3: Appendix 9-C [EN010131/APP/3.3]** has been prepared to support the application and aims to mimic the natural drainage conditions of the site as much as possible. These measures will act to reduce any effects of surface water run-off draining into the wider catchment and provide betterment. Therefore, the Scheme will not result in an increase in the surface water run-off from the site, relative to existing greenfield run-off rates.

6.7.12. There are considered to be no significant residual effects for surface water, groundwater or flood risk during the construction, operation and decommissioning phases of the Scheme.

Cumulative Effects

6.7.13. A number of planning applications within the same catchment as the Scheme have been considered in the cumulative assessment. For these applications, it is assumed they would follow standard good industry practice in terms of mitigation and compliance with environmental permits and licences. As such, there would be **no significant** cumulative effects anticipated during the construction, operation and decommissioning phases.

6.8. Landscape and Visual

Baseline and Context

6.8.1. **Chapter 10: Landscape and Visual Amenity** of the ES **[EN010131/APP/3.1]** presents the findings of an assessment of the potential significant effects on the existing landscape, designates and views, which have been identified as part of the baseline. Landscape effects relate to changes to the landscape as a resource, including physical changes to the fabric or individual elements of the landscape, its aesthetic or perceptual qualities and landscape character. Visual effects relate to changes to existing views of identified visual receptors (people), from the loss or addition of features within their view due to the Scheme.

6.8.2. The Landscape and Visual Impact Assessment identifies the sensitivity and overall significance of landscape and visual effects within the identified study area. The landscape and visual baseline assessments have been based on desk study and field work, during both winter and summer between December 2021 and October 2022.

6.8.3. Landscape receptors of the Scheme include National Character Area (NCA) 48 which covers the whole of the Order limits. A number of regional, county and local landscape receptors were also identified as part of the baseline. Visual receptors in the area include residents, people travelling through the area on roads and public transport, recreational users, visitors, and employments and institutional users.

Assessment of Effects

Construction Phase

6.8.4. Effects on landscape character and visual amenity during construction of the Scheme will be temporary and result from:

- Localised excavations and topsoil stripping/temporary storage;
- Introduction of temporary compounds, lighting, stockpiles, machinery, haul roads, associated fencing and signage which will temporarily increase the extent of the built development; and

- General construction activity, traffic and operations and the movement of plant and machinery which will increase the level of activity across the Order limits.

6.8.5. At a regional level, construction would result in **no significant** effects to the Landscape Character Types (LCTs).

6.8.6. At a county level, construction of the Scheme during winter of the first year would result in **no significant** effects to the Landscape Character Areas (LCAs) and Landscape Character Parcels (LCPs). The level of effect would range from **negligible** to **neutral**.

6.8.7. At a district level, construction of the Scheme would result in **no significant** effects to the LCAs.

6.8.8. Construction of the Scheme would result in **no significant** effects to the Area of Great Landscape Value (AGLV) locally designated landscape.

6.8.9. Construction activities will result in **moderate adverse** visual effects for residential receptors along the fringes of settlements facing the Order limits. These effects are considered to be **significant** and would result from the introduction of construction activity at close range across a wide extent of a view.

6.8.10. Residential views from the wider study area would experience **minor, negligible** or **neutral** effects during construction. This is due to the intervening vegetation, landform and built structures as well as the gently undulating landform.

Operation Effects – Winter Year 1

6.8.11. Operational phase impacts have been assessed in both the first year during winter (when there are no leaves on vegetation) and in Year 15 during summertime (best case, after planting has been established), in line with the requirements set out in professional guidance.

6.8.12. The operation of the Scheme during winter of the first year would result in **no significant** effects to LCTs defined at a regional level.

6.8.13. Operation of the Scheme would result in **neutral** effects to LCAs and LCPs defined at the County level, this is considered to be **not significant**.

6.8.14. At a district level, operation of the Scheme would result in **minor adverse** effects to LCAs, which is considered to be **not significant.**

6.8.15. Operation of the Scheme would result in **no significant** effects to the AGLV, defined at the district level.

6.8.16. Residential receptors with open views in close proximity to the Order limits will typically experience **moderate adverse** effects, considered to be **significant**, during Year 1 of operation. The Scheme layout has been designed to include

offsets from residential properties and mitigation planting, but this would not be established at Year 1.

6.8.17. Advanced Mitigation Planting has been introduced to the Scheme to reduce the duration for which residents experience adverse views.

6.8.18. Residential receptors set back from the Order limits will experience **minor** to **negligible adverse-neutral** effects due to the intervening landform, woodland and field boundary vegetation.

6.8.19. Users of sections of PRoW LL|Knai|44/2 will experience high visual effects similar to the effects experienced during construction as a result of the Scheme being located adjacent to the PRoW. These effects are anticipated to be **moderate adverse**, which is **significant**. Visibility from LL|Stow|70/1 south of Willingham by Stow joining Marton Road, and LL|Knai|44/1 will be mainly screened due to intervening landform and intervening vegetation. Visual effects are considered to range from **moderate to minor** adverse.

6.8.20. Views from PRoWs along and across the Grid Connection Corridor and the wider PRoW network will experience **no significant** effects.

Operation Effects – Summer Year 15

6.8.21. By Year 15 of operation, the proposed planting will have established which, along with existing vegetation, will be in leaf. This will reinforce the landscape structure across the Order limits and reduce the perception of new infrastructure.

6.8.22. The Scheme is expected to result in **no significant** effects to the LCTs defined at a regional level. The level of effect would be **neutral**.

6.8.23. Operation of the Scheme during summer of Year 15 will result in **no significant** effects to the LCAs and LCPs defined at the County level.

6.8.24. The Scheme will result in **no significant** effects at the District level during operation in Summer of Year 15.

6.8.25. The proposed planting and existing deciduous vegetation is considered as part of the assessment of the visual impacts during summer of Year 15. New and strengthened hedgerows and tree and shrub belt planting will reach semi-maturity. This will screen or filter the Scheme in the majority of views, however a small number of **significant** effects remain at Year 15.

6.8.26. The establishment of new planting would change the composition of some residential views, screening agricultural fields that typically form the fore- and middle ground. However, the offset from curtilage boundaries and existence of hedgerows will retain a sense of openness in the view. Native, locally characteristic species will be proposed, and will be in-keeping with the style of vegetation in the existing views, following a similar form and composition.

Decommissioning Effects

6.8.27. Decommissioning effects on the landscape and visual amenity are likely to be similar to those temporary impacts experienced during construction of the Scheme but reduced for the majority of viewpoints on account of the containment provided by landscape mitigation measures including proposed vegetation, which will have reached maturity, and general landscape management measures.

6.8.28. Decommissioning will result in **no significant** effects to the LCAs defined at a regional, county or district level. The level of effect will range from **neutral** to **negligible adverse.**

6.8.29. Decommissioning of the Scheme would result in a **moderate adverse** effect to LLCA: Ancient Woodland Ridge which is considered **significant**. Impacts arising from the physical decommissioning of the Scheme will be similar in scale and activity construction; however, the proposed planting will be more mature, and the duration will be shorter term and medium magnitude. The grassland sward that will have established within the Solar and Energy Storage Park will be removed and the fields returned to agriculture.

6.8.30. Existing and proposed planting will screen views of decommissioning at ground level in close proximity to residential receptors, however the top of equipment will likely be visible from some locations. Given the level of screening and the short term duration of the effect, decommissioning will result in **minor adverse** effects for residential receptors and road users in proximity to the Order limits, which are considered to be **not significant**.

6.8.31. In order to facilitate the decommissioning works, the site entrance along the A156 as well as other site entrances will require an alteration, which will likely affect the established hedgerow / tree planting and layout of the access road within the Order limits. Visual effects are considered similar to the construction phase and therefore **moderate** to **major adverse** albeit temporary.

6.8.32. Users of PRoW LL|Knai|44/2, sections of LL|Upto|53/1 will experience **moderate** to **major adverse** visual effects similar as the effects experienced during construction works.

6.8.33. Within the Grid Connection Corridor, Visual effects resulting from decommissioning will not be similar to construction works as buried cables will either be removed or left in situ. Open cut trenching will therefore be minimised resulting in visual effects becoming localised to selected areas. In these areas, visual effects will be **moderate** to **major adverse.** Areas previously affected by construction works but which are not required to be re-used during decommissioning works will experience either no visual effects or a low-very low magnitude due to partial visibility in the distance and are considered to be **minor** to **negligible/neutral.**

6.8.34. Visual effects and their significance on recreational users along the wider PRoW network beyond the Order limits and in the wider study area are considered to be **negligible neutral** as intervening vegetation, topography and/or built structures quickly screen views towards the Scheme.

6.8.35. Similar to construction works, the majority of available views of the Scheme during decommissioning from outdoor workers/farmers can be experienced in fields adjacent to the Order limits. Middle distance views or longer distance views are limited due to changes in topography as well as intervening vegetation. This is considered to be **moderate** to **minor adverse,** which is considered **significant.**

Mitigation Measures

6.8.36. The Scheme has been designed, as far as practicable, to avoid adverse effects on the landscape and views through consideration of options, appraisal and refinement. Modifications made to the design of the Scheme to avoid and reduce effects include mainly limiting the extent of land-take within the Order limits, siting of components, and, where possible, minimise impacts on established vegetation and features that contribute to landscape character and visual amenity.

6.8.37. The overall objective of the landscape design is to integrate the Scheme into its landscape setting and avoid or minimise adverse landscape and visual effects as far as practicable. Accordingly, the landscape design aims to achieve the following:

- To integrate the Scheme into the existing landscape pattern as far as possible by retaining and following existing features, including vegetation, where practicable;
- To replace vegetation lost because of construction of the Scheme through areas of new planting;
- To filter and screen more prominent components of the Scheme in views from visual receptors; and
- To apply appropriate offsets to residential properties to mitigate/reduce views of the Scheme in views from visual receptors.

6.8.38. Details of the landscape measures embedded into the Scheme design, including a summary of their environmental functions, is presented in the **Outline Landscape and Ecological Management Plan (OLEMP) [EN010131/APP/7.10].**

6.8.39. The layout of the Solar and Energy Storage Park has been designed to minimise the loss of, and avoid significant impacts on, existing vegetation. The existing hedgerow network that defines the scale and pattern of fields will be unchanged, as will existing blocks of woodland. The following minimum offsets / buffer from existing vegetation boundaries have been incorporated:

- 15m from Ancient Woodland;
- 15m from existing woodland and tree groups;
- 10m from hedgerows with trees;
- 5m from hedgerows without trees;
- 10m from proposed or strengthened hedgerows with trees; and
- 10m from existing ponds to be enhanced with remedial vegetation clearance and proposed bankside grassland.

Cumulative Effects

6.8.40. The assessment has identified, at worst, **minor adverse** effects on landscape during construction for the following projects: West Burton Solar Project, Cottam Solar Project, Cottam Power Station demolition, and Stow Park Road Residential Development.

6.8.41. During operation, cumulative effects from the Scheme and Cottam Solar Project or Tillbridge Solar Farm are considered **minor adverse**. Cumulative effects with West Burton Solar Project are **moderate adverse**, which is considered **significant.**

6.8.42. West Burton Solar Project, Cottam Solar Project, Tillbridge Solar Farm and the Scheme has as a combined cumulative impact on landscape of **moderate adverse**, which is considered **significant.** Given the proximity of the Scheme with these other solar projects, and the combined scale, the Applicant has worked in partnership to identify areas where projects can collaborate to manage environmental effects.

6.9. Noise and Vibration

Baseline and Context

6.9.1. **Chapter 11: Noise and Vibration** of the ES **[EN010131/APP/3.1]** presents the findings of an assessment of the effects of the Scheme on noise and vibration at the Site and the surrounding area. Baseline noise monitoring was carried out to establish the existing noise climate in the area. Sensitive receptors (i.e. buildings whose occupants may be disturbed by adverse noise and vibration levels, and structures that are sensitive to vibration) which have the potential to be affected by the Scheme were identified and have been taken into consideration.

6.9.2. During the surveys, the dominant noise source at the majority of the locations was observed to be road traffic from the surrounding road network. At two locations, train movements had a substantial contribution to the noise environment.

Assessment of Effects

6.9.3. Construction noise levels are predicted to be at their highest during drill site activities. The duration of any construction noise effects is considered to be temporary, short-term, with no permanent residual effect once works are completed. Working hours during construction will be from 7am to 7pm Monday to Friday and 9am to 1pm on Saturdays during summer months, and from 8am to 6pm Monday to Friday and 9am to 1pm on Saturdays during winter months. Construction noise levels will be controlled through implementation of the **Framework CEMP [EN010131/APP/7.3]**.

6.9.4. Drilling activities are not predicted to exceed the noise limit during daytime, weekday evening and weekend at any receptors; however, if works extend into the night, the limit may be exceeded. Noise calculations indicate one sensitive location has the potential to result in significant noise effects if drilling activities extend into the night-time period. The hierarchy of mitigation

measures for drilling activities will ensure that drilling activity noise effects will be reduced as far as reasonably practicable. This hierarchy includes the use of acoustic fencing, if required. As such, noise effects due to drilling activities are considered to be **not significant**.

6.9.5. Noise and vibration impacts from construction and decommissioning traffic are anticipated to be **negligible** to **minor adverse** and **not significant**.

6.9.6. Vibration levels from activities (including on-site works and Heavy Goods Vehicles (HGV traffic) are below the level at which there is any potential for cosmetic building damage. For certain activities that are likely to produce high levels of vibration such as the use of a vibratory roller during reinstatement, the duration of these activities will be short.

6.9.7. For the assessment of operational noise during the daytime, the typical background level has been defined from a Sunday daytime period, with lower noise levels compared to a weekday or Saturday to provide a worst-case scenario assessment. During operation, plant will operate continuously so there will not be any noticeable impulsive or intermittent characteristics from noise emissions. Predicted noise levels of operational solar plant at the nearest receptors are below the existing background levels, and effects are predicted to be **negligible** to **minor adverse** and **not significant**.

6.9.8. Some flexibility in the locating of plant is required. Consequently, should there be any changes in the locations of plant, the Applicant commits to not to exceed predicted rating noise levels**.** This may be achieved through selection/procurement of quieter equipment, for example, than the worst-case sound power levels that have been assessed.

Mitigation Measures

6.9.9. Embedded mitigation includes the use of best practical means identified in the **Framework CEMP [EN010131/APP/7.3]**, such as the sequential start up of plant and vehicles rather than all together and regular plant maintenance.

6.9.10. Appropriate routing of construction and decommissioning traffic on public roads and along access tracks will be detailed in the CTMP.

6.9.11. Where practicable, drilling works will be avoided within 200 m (the distance at which significant effects are predicted at night) of residential receptors, and where drilling activities may occur within 200 m of sensitive receptors, the option for open cut cable laying will be explored as an alternative to drilling. The potential for the use of quieter equipment than listed in the ES will also be explored.

6.9.12. A construction noise monitoring scheme shall be developed alongside a communication strategy and noise complaint system. Consent under section

61 of the Control of Pollution Act 1974 will be obtained prior to noisy work being carried out to demonstrate that noise and vibration has been minimised as far as reasonably practicable.

6.9.13. During operation, embedded mitigation includes plant section and design layout to minimise noise at receptors, for example, the BESS compound is proposed to be located in an area away from large concentrations of receptors, such that noise emissions are less impactful. To maintain flexibility, the Applicant has made a commitment that noise at sensitive receptors will be no higher than the levels presented in the ES.

Cumulative Effects

6.9.14. Cumulative noise effects may occur when developments are located nearby to a common receptor, within a 500m distance of each other. At greater distances, any noise emissions would be attenuated such that there would normally be no combined effect. The precise scale of additional noise effects will be dependent on the exact work taking place at each location at any one time, however compliance with mitigation measures detailed within the **Framework CEMP [EN010131/APP/7.3] and DEMP [EN010131/APP/7.5]** will reduce these effects as far as possible. It has been assumed that other developments will also adopt standard practices during their construction phases and comply with set limits.

6.9.15. Based on distances from key project components to cumulative developments, and the requirements to implement standard practices, it is considered that any overlapping of construction phases between the Scheme and other nearby developments would not result in any cumulative effects at common noise-sensitive receptors. Therefore, construction, operation and decommissioning noise effects will be unchanged and remain **negligible** to **minor adverse** and **not significant**.

6.10. Socio-Economics and Land Use

Baseline and Context

6.10.1. **Chapter 12: Socio-Economics and Land Use** of the ES **[EN010131/APP/3.1]** presents the findings of an assessment of the likely significant effects on socio-economics and land use as a result of the Scheme.

6.10.2. In order to assess the potential effects of the Scheme, the environmental conditions, resources, and sensitive receptors that currently exist in the study area have been determined. These include:

- Employment generation;
- Gross Value Added (GVA);
- Public Rights of Way (PRoW);
- Agricultural land; and
- Local amenities and land use (residential properties, business premises, community facilities and development land).

6.10.3. The study area for the assessment varies dependant on the receptor. For example, employment impacts consider a 60-minute travel area by car from

the Order limits, a 500m radius is considered for PRoW, agriculture and soils, residential properties, business premises and development land, and community facilities have a 2km study area from the Site.

6.10.4. The baseline conditions are summarised in the sections below.

Agricultural Land and Soils

6.10.5. The baseline conditions for land quality are presented in the Agricultural Land Classification (ALC) report, which is presented in **ES Volume 3: Appendix 12-A [EN010131/APP/3.3].**

6.10.6. The agricultural land is graded on a scale, with Grade 1 representing the best quality agricultural land, and Grade 5 being the least favourable.

6.10.7. The ALC survey identified that the Order limits is located predominantly in an area of Grade 3b (moderate quality agricultural land) with 74% (611.8 ha) of the Site comprising Grade 3b and estimated sub-grade 3b. Approximately 155.2 ha (19%) is classified as Grade 3a (Best and Most Versatile (BMV)) and 57 ha (7%) is classified as non-agricultural land, including roads and access tracks for example.

6.10.8. At the Solar and Energy Storage Park, subgrade 3a and estimated BMV land comprises 12% or approximately 80.4ha. Subgrade 3b and estimated subgrade 3b covers approximately 553.4 ha which makes up the majority of the land within the Solar and Energy Storage Park (85%), and non-agricultural land accounts for 18.2ha (3%). At the Grid Connection Corridor, the majority of land is made up of estimated BMV land at 74.8ha (43%). Estimated subgrade 3b land covers 58.4ha (34%) and non-agricultural land accounts for 38.8ha (23%) of the Corridor.

Employment

6.10.9. The unemployment rate among working age residents in the study area was 5.2%, which is broadly in line with the recorded rate across the East Midlands (5%) and England (4.9%).

6.10.10. The Annual Population Survey 2020 (Ref 5) showed that 30.3% of working age residents in the study area have a degree level qualification or higher (National Vocational Qualification (NVQ) Level 4+), which is similar to the average for the East Midlands (37.2%) but slightly lower than for England (42.8%). The proportion of residents in the study area with no qualifications is 6.4%, similar to the rates recorded for the East Midlands (6.2%) and England (6.2%).

Deprivation

6.10.11. Based on the 2019 Indices of Multiple Deprivation (IMD) (Ref 6), West Lindsey is the 146th most deprived local authority out of the 317 districts in England

(where 1 is the most deprived), and Bassetlaw is the 108th most deprived local authority in England. Within West Lindsey, four of the Lower Layer Super Output Areas (LSOAs) are within the top 10% most deprived in England. Within Bassetlaw, 5 LSOAs are within the top 10% most deprived in England.

Local Economy

6.10.12. The construction industry contributes 5.5% of employment within the study area, similar to the proportions recorded regionally (4.7%) and nationally (4.9%).

Assessment of Effects

Construction Phase (anticipated 2025 to 2027-28)

6.10.13. The construction phase of the Scheme will support 363 total net jobs per annum. The decommissioning phase is expected to support the same number of jobs and local jobs. During these periods, the Scheme is therefore expected to have a positive impact.

6.10.14. The direct, indirect and induced employment, expenditure and upskilling created from the construction of the Scheme must be judged in the context of the labour pool of construction workers in the study area (106,000 workers). Taking this into account, the impact of construction employment generation in the study area has been assessed as temporary **minor beneficial** and **not significant**.

6.10.15. The impact of direct Gross Value Added (GVA) generation from the construction phase on the study area has been assessed as temporary **minor beneficial** and **not significant**.

6.10.16. The impact on the national economy, as represented by the total GVA generated, has been assessed as temporary **minor beneficial** and **not significant**.

6.10.17. There would be some temporary diversions of PRoW during construction. These temporary diversion routes cause disruption to users making local journeys on these PRoW, possibly resulting in longer journey times. Due to the limited scale of impacts upon PRoW, these effects are assessed to be **minor adverse** and **not significant.**

6.10.18. From the construction phase, temporary and permanent use of agricultural land will occur. The vast majority of BMV agricultural land within the Order limits would be returned to its original use following operation. Impacts are therefore temporary and reversible. Permanent loss of BMV land (to the sub-station and BESS location area assuming those elements remain in place following operation) falls below

the 20 ha threshold, therefore the effect of the Scheme on the use of BMV agricultural land is **minor adverse** and **not significant.**

6.10.19. Construction of the Scheme would result in temporary effects on the amenity of residents, businesses, and users of community facilities. However, taking into account the embedded mitigation secured via the Framework CEMP **[EN010131/APP/7.3]**, the residual effect results of the air quality, noise and vibration, traffic and transport, **no significant** effects on local amenities are identified.

Operation (anticipated 2028-2088)

6.10.20. The impact of operational employment generation in the local economy would be slightly increased by the Scheme, with 14 FTE jobs expected. This increase would be marginal and therefore this results in a permanent **negligible** effect, which is considered **not significant**.

6.10.21. PRoWs are not expected to be affected during operation, however in the event that PRoW closures are required for maintenance activities temporary diversions will be put in place. This will result in a **negligible effect**, which is considered **not significant.**

6.10.22. Effects on agricultural land use would occur as long-term effects arising from the construction of the Scheme and have been assessed in the construction phase. The area of land within the Grid Connection Corridor will be returned to agriculture following construction. There are no new potential or additional impacts on agricultural land during the operation of the Scheme.

6.10.23. The direct, indirect, and induced employment, expenditure and upskilling created from the decommissioning of the Scheme must be judged in the context of the labour pool of construction workers in the study area. The study area currently has around 106,000 workers in its construction sector. The impact of decommissioning employment generation in the local economy has been assessed as **minor beneficial** and **not significant.**

6.10.24. Changes to journey times, local travel patterns, and certainty of routes for users would arise from the temporary diversions of PRoW. Due to the limited scale of impacts upon PRoW, these effects are assessed to be very low adverse, which results in a **minor adverse** effect which is considered **not significant.**

6.10.25. Given the short time frame of any disruption to farming activities during decommissioning, and the return of the Site to farming practices, the magnitude of change during the decommissioning phase is considered to be low and therefore **not significant**.

6.10.26. Impacts on residents, businesses and community facilities during decommissioning would remain unchanged by the Scheme. Therefore, this results in **no effect** which is considered **not significant.**

Mitigation Measures

6.10.27. Primary mitigation measures are embedded within the Scheme, as set out in their respective chapters including noise and vibration, air quality, and visual amenity.

6.10.28. Appropriate measures to mitigate temporary impacts on users of PRoW during the construction and decommissioning phases have been proposed and included within the **Framework CEMP [EN010131/APP/7.3] and DEMP [EN010131/APP/7.5]**. The temporary diversions will be supported by clear signs and will be planned and programmed to minimise disruption to users.

6.10.29. A Soil Management Plan (SMP) will be adhered to during construction and operation. An Outline Soil Management Plan has been prepared **[EN010131/APP/7.12].** The SMP will include the principles and actions to be followed for the handling, storage, and reinstatement of soil to minimise adverse effects on the soil resource.

Cumulative Effects

6.10.30. The cumulative assessment identified for each receptor those areas where the predicted effects of the Scheme could interact with effects arising from other plans and/or projects, on the same receptor based on a spatial and/or temporal basis.

Construction

6.10.31. The combined effect of the construction phase of the cumulative development with West Burton Solar Project and Cottam Solar Project is likely to bring considerable additional employment to the study area. The overall cumulative effect from the generation of works and GVA is likely to result in a temporary **minor beneficial** effect which is considered **not significant.**

6.10.32. The overall cumulative effect on PRoW during construction has the potential to have a greater effect due to the West Burton Solar Project being located adjacent to the Scheme and could intersect LL|Mton|68/1 (footpath – c.700m). It is expected the effect will remain temporary **minor adverse** and considered **not significant.**

6.10.33. Whilst it is not possible to quantify the use of BMV land for every planned solar park in the region, analysis of Little Crow Solar Park and Heckington Fen Solar Park signify that the effect on agricultural land, including BMV, across the region is likely to remain minimal. Therefore, the cumulative effect on agricultural land associated with the Scheme remains **minor adverse**, which is **considered not significant**.

Operation

6.10.34. If all the schemes are realised there will be considerable additional construction phase employment. Most cumulative schemes will not generate considerable operational employment due to their nature as infrastructure or as purely residentially led development projects. Therefore, the overall combined cumulative effect from the generation of workers during operation is likely to remain permanent very low beneficial, resulting in a permanent **negligible effect** which is considered **not significant.**

6.10.35. No PRoW that intersects the Order limits are expected to be affected during the operation of the adjacent schemes of West Burton and Cottam Solar Projects. Therefore, it is expected that there will be a permanent **negligible effect** which is considered **not significant.**

6.11. Transport and Access

Baseline and Context

6.11.1. **Chapter 13: Transport and Access** of the ES **[EN010131/APP/3.1]** reports the findings of an assessment of the likely significant effects on traffic and access as a result of the Scheme during the construction, operation and decommissioning.

6.11.2. A detailed assessment of the operational impacts has been scoped out of the ES due to the low number of trips associated with maintenance and operation (it is anticipated that there will be up 15 vehicle trips to site per day during the operational phase).

Strategic Highway Network

6.11.3. The A1(M) is a dual carriageway road which forms part of the trunk road network and is managed by National Highways. The A1(M) can be accessed via the A614 Blyth Interchange, A638, A631, and A156 Gainsborough Road to the north or via the A57, Markham Moor Interchange and A156 Gainsborough Road to the south.

6.11.4. The A614 is a single carriageway road which links the A1(M) to the A638 which runs north to Doncaster. The A614 is classified by the Department of Transport (DfT) as part of the Major Road Network (MRN) and provides access to the A631, which joins with A631 to the northwest and provides access to A156 from the north.

6.11.5. The A57 is a single carriageway road which links the A1(M) to the A46 to the west of Lincoln. The A57 is classified by the DfT as part of the MRN and provides access to the A156 from the south. The A57 also provides access to Laneham Road, which joins with Rampton Road and provides access to Cottam Road from the west.

6.11.6. A plan showing the surrounding highway network as this relates to the study area for the Scheme is shown in **ES Volume 2: Figure 13-4 [EN010131/APP/3.2]**.

Local Highway Network

6.11.7. The A156 High Street/ Gainsborough Road runs north-south, bordering the Solar and Energy Storage Park to the west between and including its junctions with the A631/ A159 within Gainsborough to the north and the A57 to the southwest of Saxilby to the south.

6.11.8. The A156 High Street/ Gainsborough Road is a single carriageway road connecting with the A57 to the west of Saxilby in the south and with the A631/ A159 in Gainsborough to the north.

6.11.9. The B1241 runs both north-south and east-west, to the north and east of the Solar and Energy Storage Park between and including its junctions with the B1241 Kexby Lane/ Upton Road/ Willingham Road to the north and A1500 Till Bridge Lane to the southeast.

6.11.10. Willingham Road, which becomes Marton Road are both narrow rural roads with passing places along its route; the roads connect to the A156 to the west and B1241 to the east

6.11.11. Clay Lane is a no-through road single lane track (with passing places) accessed via the A156 to the southwest of the Solar and Energy Storage Park and passing underneath the railway via a relatively narrow and low underpass.

6.11.12. The A1500 Stow Park Road/ Marton Road/ Till Bridge Lane runs east-west, to the south of the Solar and Energy Storage Park between and including its junctions with the A156 to the west and the B1241 to the east.

6.11.13. Cottam Road is located between the junction of the Grid Connection Corridor with Rampton Road/ Green Lane to the west and the village of Cottam to the east.

6.11.14. Rampton Road is a single carriageway road which connects to Cottam Road and Green Lane at a junction in the north and Laneham Road to the south. Laneham Road connects to Rampton Road in the north and the A57 in the south.

Walking, Cycling and Equestrian Facilities

6.11.15. Due to the rural location of the Order limits, there is limited footway provision in the surrounding area. There are several PRoW that run in close proximity, and a single PRoW that crosses the Order limits (PRoW LL|Upto|53/1).

6.11.16. There are no on or off carriageway dedicated/marked cycling facilities within the immediate vicinity of the Order limits. There are no formal cycle facilities in the vicinity of the Order limits.

6.11.17. There are no formal equestrian facilities (i.e. Bridleways) in the vicinity of the Solar and Energy Storage Park. There are formal equestrian facilities in the vicinity of the Grid Connection Corridor, these include Bridleways, Restricted Byways and Byways Open to All Traffic (BOAT).

Public Transport Facilities

6.11.18. Bus stops are located on the A156 and B1421 (north and east) which broadly surround the Solar and Energy Storage Park. The nearest bus services to the Grid Connection Corridor are located on Cottam Road.

6.11.19. Gainsborough is located to the north of the Order limits and has two railway stations, Gainsborough Central (approximately 6km north of the Order limits) and Gainsborough Lea Road (4.5km to the north of the Order limits). These stations provide connections to Sheffield, Lincoln, Peterborough and Doncaster.

6.11.20. Retford Station is located approximately 10.5km to the west of Cottam Power Station and provides connections to York, Hull, Newcastle and London King's Cross.

Assessment of Effects

6.11.21. 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. It is estimated that 70% of construction staff and 62% of HGVs/LGVs will use the primary site access, located via the A156 Gainsborough Road. Construction and operational access points within the Solar and Energy Storage Park are shown in **Figure 3.** Access points during the construction phase for the Grid Connection Corridor are shown in **Figure 4].**

6.11.22. For the Grid Connection Corridor, there would be up to 16 HGVs, 12 LGVs and one minibus service for construction workers per day, representing 58 movements. Further detail of the anticipated worst case scenario traffic numbers is described in **Chapter 13: Transport and Access [EN010131/APP/3.1]** and **Appendix 13-D: Transport Assessment [EN010131/APP/3.3].**

6.11.23. Impact of severance on road link receptors during construction has been assessed as **minor adverse** (Kexby Lane) or **negligible** (all other receptors) and is considered to be **not significant**. The impact of severance on PRoW receptors has been assessed as **minor adverse** (PRoW NT|SouthLeverton|BOAT16) or **negligible** (all other receptors) and is considered to be **not significant**.

6.11.24. During the construction phase the impact of driver delay on road junction receptors has been assessed as **negligible** for all receptors and is considered to be **not significant**.

6.11.25. The impact of pedestrian delay on road link receptors during construction has been assessed as **minor adverse** (Kexby Lane) or **negligible** (all other receptors) and is considered to be **not significant**. The impact of pedestrian delay on PRoW receptors has been assessed as **minor adverse** (PRoW NT|SouthLeverton|BOAT16) or **negligible** (all other receptors) and is considered to be **not significant**.

6.11.26. The impact of pedestrian and cyclist amenity on road link receptors during construction has been assessed as **negligible** and **not significant**. The impact of pedestrian and cyclist amenity on PRoW receptors has been assessed as **minor adverse** (PRoW NT|SouthLeverton|BOAT16) or **negligible** (all other receptors) and is considered to be **not significant**.

6.11.27. The impact of fear and intimidation on road link receptors during the construction phase has been assessed as **minor adverse** (Kexby Lane) or **negligible** (all other receptors) and is considered to be **not significant**. The impact of fear and intimidation on PRoW has been assessed as **minor adverse** (PRoW NT|SouthLeverton|BOAT16) or **negligible** (all other receptors) and is **not considered to be significant.**

6.11.28. The impact of accidents and safety on road receptors during construction has been assessed as **negligible** and is considered to be **not significant**. This includes Kexby Lane which has been assigned a very low level of sensitivity in terms of accidents and safety with just one collision recorded along this link between the junctions with Upton Road (west) and B1241 Willingham Road (east) within the five-year period, as well as Headstead Bank where no collisions were recorded.

6.11.29. The Scheme is expected to attract a low level of vehicle trips during the operational phase i.e. up to 15 vehicle arrivals and 15 vehicle departures daily, and a detailed assessment of this scenario has therefore been scoped out.

6.11.30. The decommissioning assessment year is assumed to be 2088 (60 years from opening). The decommissioning period is expected to be similar in duration and nature to the construction phase, albeit with fewer vehicle trips over a shorter duration. It is therefore reasonable to assume the traffic flows during the decommissioning phase will be the same as, or not greater than, the construction phase.

6.11.31. Following the above assessment, **no significant** effects have been identified as a result of the Scheme on transport and access during any phase as all effects have either been categorised as minor adverse or negligible.

Mitigation Measures

6.11.32. Embedded mitigation measures have been included in the Scheme through the provision of a Construction Traffic Management Plan (CTMP), to be secured through the DCO, a Framework version of which is provided in **ES Volume 3: Appendix 13-E [EN010131/APP/3.3].** Other embedded mitigation to minimise construction and decommissioning impacts include:

- Delivering internal construction routes to allow vehicles to access all areas via the site access points;

- Providing a haul road to facilitate construction of the Grid Connection Corridor;
- Providing sufficient protection/separation between existing PRoW and construction routes where necessary;
- Managing areas where the proposed construction route crosses any existing PRoW (where these are unable to be diverted) or local access roads, by maximising visibility between construction vehicles and other users (pedestrians and road users), implementing traffic management e.g. advanced signage to advise other users of the works, as well as manned controls at each crossing point (marshals/banksmen), with a default priority that construction traffic will give-way to other users. This includes several PRoW crossing points as detailed within the **Outline PRoW Management Plan [EN010131/APP/7.8]**;
- Carrying out road condition surveys pre-construction, during construction and post-construction, to identify any defects that arise to the highway's assets/verges during the construction phase of the Scheme for re-instatement;
- Restricting HGV movements and abnormal loads to certain routes (see HGV Routing Plan in **ES Volume 2: Figure 13-3** and Abnormal Load Routing Plan in **ES Volume 2: Figure 13-6 [EN010131/APP/3.2]**);
- Reducing HGV movements during certain times of the day (e.g. between 07:00 and 09:00, as well as between 17:00 and 19:00), to avoid increasing traffic levels on the surrounding highway network during the traditional weekday peak hours;
- Implementing a Delivery Management System to control the bookings of HGV deliveries from the start of the construction period. This will be used to regulate the arrival times of HGVs via timed delivery slots, as well as to monitor compliance of HGV routing;
- Implementing a monitoring system to record the route of all HGVs travelling to and from the Scheme, to record any non-compliance with the agreed routing plan/ delivery hours and to communicate any issues to the relevant suppliers to ensure the correct routes and times are followed;
- Developing a communications strategy including regular meetings with contractors to review and address any issues associated with travel to/ from the Scheme, as well as to relay information including any restrictions and requirements which should be followed; and
- Encouraging local construction staff to car share to reduce single occupancy car trips, by promoting the benefits of car sharing such as reduced fuel costs and by providing dedicated parking spaces for those car sharing within the compounds. A formal Car Share Scheme will be implemented to match potential sharers and to help staff identify any colleagues who could potentially be collected along their route to/ from site.

6.11.33. For a full list of embedded mitigation measures, please see Section 13.9.2 of **Chapter 13: Transport and Access [EN010131/APP/3.1].**

6.11.34. The above measures will be secured as part of the **Framework CTMP (ES Volume 3: Appendix 13-E [EN010131/APP/3.3])**, **Framework CEMP [EN010131/APP/7.3]** during the construction phase, Framework **OEMP**

[EN010131/APP/7.4] during the operational phase, and the **Framework DEMP [EN010131/APP/7.5]** during the decommissioning phase.

6.11.35. There is one enhancement measure proposed for the construction and decommissioning phase to provide added benefits. This includes conducting a Stage 1 Road Safety Audit (RSA) on the preliminary design of the access points and proposed highway improvements. A Designer's Response will be prepared so that any road safety concerns are addressed as part of the final design.

6.11.36. Following the implementation of the mitigation measures, **no significant residual** effects have been identified as a result of the Scheme on transport and access in any phase.

Cumulative Effects

6.11.37. The cumulative assessment assesses cumulative effects between the Scheme during the peak construction phase (2026) and other proposed and committed plans and projects where the predicted effects of the Scheme could interact with effects arising from these other plans or projects based on a spatial and/or temporal basis.

6.11.38. West Burton Solar Project, Cottam Solar Project and Tillbridge Solar have been identified to have the potential to result in cumulative effects with the Scheme during the peak construction phase (2026).

6.11.39. A joint approach has been taken with West Burton Solar Project and Cottam Solar projects, to work together to minimise cumulative traffic and access impacts where viable. Joint mitigation includes:

- A joint CTMP;
- Avoiding HGV movements during the traditional AM peak hour (08:00 – 09:00) and PM peak hour (17:00 – 18:00);
- Construction worker travel outside the of the peak hours, working days 07:00 to 18:00 during the weekday and 08:00 to 13:30 on Saturdays;
- Commitment to seek to coordinate deliveries with other developments in the area; and
- Banksmen to be provided at site access points and PRoW to ensure the safe movement of all construction vehicles.

6.11.40. No projects identified in **ES Volume 3: Appendix 5-A [EN010131/APP/3.3]** are considered (in combination) to impact any of the receptors identified in this assessment. Any overlaps between the construction vehicle trips associated with the Scheme and West Burton Solar Project, Cottam Solar Project and Tillbridge Solar are likely to be primarily confined to wider strategic routes, and therefore the effects are considered to be **not significant.**

6.12. Human Health and Wellbeing

Baseline and Context

6.12.1. **Chapter 14: Human Health and Wellbeing** of the ES **[EN010131/APP/3.1]** assesses the potential effects of the Scheme on human health, taking into account the results from the other technical chapters within the ES.

6.12.2. According to the 2011 Census data, the study area has a slightly worse health status than the wider region and England as a whole. Bassetlaw is one of three areas in Nottinghamshire where life expectancy is lower than the national average.

Assessment of Effects

6.12.3. The assessment has considered access to healthcare services and other social infrastructure; air quality, noise and neighbourhood amenity; accessibility and active travel; access to work and training; and social cohesion and lifetime neighbourhoods.

6.12.4. It is unlikely that there will be any severance between local residents and the healthcare facilities or other social infrastructure which they use during the construction, operation or decommissioning phase. This is because neither the additional construction/decommissioning traffic flow nor the traffic flow generated during the operational phase will exceed the future baseline traffic flows (without the Scheme). No road closures are anticipated at any point during the Scheme. Therefore, effects on access to healthcare services and other social infrastructure in all phases of the Scheme are anticipated to be **neutral.**

6.12.5. The implementation of mitigation is expected to prevent the occurrence of significant impacts arising from dust generation during the construction phase, however there may be adverse impacts on some residents during the construction phase as a result of traffic noise at Marton Road, B1241 High Street and Headstead Bank). Noise and vibration levels may exceed Lowest-observed-adverse-effect level (LOAEL) in some locations during the construction and decommissioning phases. Therefore, effects on air quality, noise and neighbourhood amenity are anticipated to be **negative** during the construction and decommissioning phases, and **neutral** (during the operational phase).

6.12.6. All existing PRoW will be retained during the construction phase with no PRoW closures. There may be a limited number of temporary diversions around the Grid Connection Corridor during cable installation, and a similar impact is expected for the decommissioning phase. Therefore, effects on accessibility and travel are anticipated to be **negative** during the construction phase, and **neutral** during operation.

6.12.7. The construction phase of the Scheme will support 363 net jobs per annum. The decommissioning phase is expected to support the same number of jobs and local jobs. During these periods, the Scheme is therefore expected to have a positive impact. During the operation phase, the Scheme is expected to provide 14 FTE jobs. As set out in the **Outline Skills, Supply Chain and**

Employment Plan [EN010131/APP/7.7], the Applicant will provide a range of apprenticeships, training placements and deliver an education programme centred around STEM and careers-based topics. Therefore, effects on access to work and training during the construction and decommissioning phases are expected to be **positive**, and **neutral** during the operational phase.

6.12.8. During construction, nine PRoW routes may be temporarily diverted, however this is not anticipated to result in the severance of communities. The impact on the existing community will be limited as far as possible through provision of a minibus service to transfer construction workers to and from the Site, and development of a local communications strategy to address any issues and relay information. Therefore, the Scheme is expected to have a **neutral** impact on social cohesion and lifetime neighbourhoods during all phases of the Scheme.

Mitigation Measures

6.12.9. Embedded and additional mitigation measures are incorporated and secured into the Scheme as set out in the respective chapters in the ES to reduce other construction, operational and decommissioning effects (such as noise and vibration, air quality, transport and access and socio-economics and land use), which in turn will mitigate the effects on the local community and existing facilities from a Human Health and Wellbeing perspective.

6.12.10. The Scheme design has embedded sufficient mitigation to avoid significant adverse effects on human health and wellbeing, without additional mitigation measures being required.

Cumulative Effects

6.12.11. The assessment has considered the potential cumulative impact of the West Burton Solar Project and the Cottam Solar Project. The construction phase of all three developments is expected to create a peak of 1,886 workers which could potentially increase the GP:Patient ratio to 1:905, which exceeds the recommend ratio of 1:1,905 which exceeds the recommended ratio (1:1,800) set by the Royal College of General Practitioners.

6.12.12. The cumulative effect of all three developments on accessibility and active travel and access to work and training is expected to remain as temporary **minor beneficial** and **not significant.**

6.13. Other Environmental Topics

6.13.1. **Chapter 15: Other Environmental Topics** of the ES **[EN010131/APP/3.1]** assesses the following topics: air quality; glint and glare; ground conditions; major accidents and disasters; telecommunications, television reception and utilities; and waste. None of these warrant individual chapters in the ES, either due to the brevity of the assessment or the limited nature of their effects as agreed in the Scoping Opinion.

Air Quality

Baseline and Context

6.13.2. This section of **Chapter 15: Other Environmental Topics [EN010131/APP/3.1]** presents the findings of an assessment of the likely significant effects on air quality as a result of the Scheme. The assessment relates to dust generation and emissions from additional road traffic and onsite equipment during the construction phase. The potential for operational impacts is also addressed. The decommissioning phase will be similar in nature, duration, and extent to the construction phase, and is therefore assumed to generate similar effects to those anticipated during the construction phase.

6.13.3. There are no Air Quality Management Areas (AQMA) declared in West Lindsey District Council and concentrations of NO_2 and PM_{10} are considered to be very good across the district.

Assessment of Effects

6.13.4. Dust generation during construction and decommissioning will be short-term and temporary and is not anticipated to induce significant effects on local air quality providing the adequate implementation of mitigation measures. Air quality impacts during the construction and decommissioning phases are therefore expected to be **negligible** and **not significant.**

6.13.5. Potential impacts on local air quality during the operation of the Scheme are anticipated to be less and are therefore also considered to be **negligible** and **not significant.**

6.13.6. The Dust Risk Assessment (DRA) (**ES Volume 3: Appendix 15-A [EN010131/APP/3.3]**) for the Scheme has concluded that, in the absence of mitigation, the construction and decommissioning phases will likely pose a high risk of adverse effects. Following the implementation of the **Framework CEMP [EN010131/APP/7.3],** air quality effects are anticipated to be **minor adverse** (**not significant**). Air quality effects will be reduced by ensuring good practice during construction through implementing a Dust Management Plan, preparing and maintaining the site and ensuring waste and earthworks management.

6.13.7. Given the relatively good air quality conditions at the Site and surrounding area, in addition to the below-threshold traffic generation, it is not expected that the additional road traffic will lead to any exceedances of the national air quality strategy objectives. The effect is therefore anticipated to **minor adverse** and **not significant.**

Mitigation Measures

6.13.8. Embedded mitigation measures appropriate for the risk of dust nuisance will be implemented through the **Framework CEMP [EN010131/APP/7.3]** in accordance with the Institute of Air Quality Management's (IAQM's) guidance.

6.13.9. For the operation phase, mitigation measures to reduce the likelihood of fire will be designed into the BESS, following the Outline Battery Safety Management Plan **[EN010131/APP/7.1].**

6.13.10. Decommissioning will generate similar effects to those anticipated during the construction phase, and therefore the mitigation measures proposed during the construction will be appropriate for application during decommissioning. A **Framework DEMP [EN010131/APP/7.5]** has been prepared for the Scheme. Effects during decommissioning are considered to be **not significant**.

Cumulative Effects

6.13.11. The cumulative assessment has considered West Burton Solar and Cottam Solar Project as developments that may cause cumulative effects alongside this Scheme. No construction dust effects additional to those reported for the Scheme are identified as each project will implement dust mitigation measures.

6.13.12. There is the potential for cumulative impact of road emissions from construction vehicles, with a peak weekly average of 198 vehicle movements on local roads. To mitigate any effects, a joint CTMP could be produced in order to manage the construction traffic appropriately.

6.13.13. No other plans or projects identified in **ES Volume 3, Appendix 16-A**: **Shortlist of Cumulative Schemes [EN010131/APP/3.3]** are considered to impact air quality receptors identified in this assessment. Therefore, other schemes are not likely to contribute to the effects on air quality receptors and therefore the effects are **not significant.**

Glint and Glare

Baseline and Context

6.13.14. 'Glint' refers to a momentary flash of light and 'Glare' refers to a continuous source of bright light. The full study on glint and glare is available in **Appendix 15-D** of the ES **[EN010131/APP/3.3]**. A number of potential receptors are present in the vicinity of the Order limits. These include residents, road vehicles, railway users and aircraft.

Assessment of Effects

6.13.15. Solar reflections are possible at 79 of the 107 residential receptors within the 1km study area. Once mitigation was implemented with the Scheme design, overall impacts remained low for four receptors, but reduced to none for all remaining receptors. Therefore, overall impacts on residential receptors are considered **acceptable** and **not significant.**

6.13.16. Solar reflections are possible at 92 of the 95 road receptor points assessed in the 1km study area. Once mitigation was implemented, overall impacts reduce to **none** and are therefore **not significant**.

6.13.17. Solar reflections are possible at 22 of the 24 rail receptor points assessed within the 1km study area. Upon reviewing the actual visibility of the receptors,

glint and glare impacts reduce to **none** for all receptors, and are therefore **not significant**.

6.13.18. Six runways and one Air Traffic Control Tower were assessed in detail at Gamston Airfield and Sturgate Airfield. Upon reviewing the actual visibility of the receptors, including ground elevation, glare impacts are reduced to **none.** Overall aviation impacts are **low** and **not significant.**

Mitigation Measures

6.13.19. The embedded design mitigation measures for the Scheme includes:

- Careful siting of the Scheme in the landscape with offsets from existing residential areas, vegetation patterns and road networks;
- Conserving existing vegetation patters; and
- Creating new Green Infrastructure (i.e. vegetation planting) within Order limits with extensive planting proposals.

6.13.20. Additional mitigation measures are required to be put in place due to impacts found at two residential receptors and 16 road receptors. These mitigation measures include hedgerows to be infilled and maintained to a height of at least 3 m that will screen all views of the Scheme from the affected receptors.

Cumulative Effects

6.13.21. It is anticipated that the cumulative developments, identified in **Appendix 16-A** of the ES **[EN010131/APP/3.3]** will be designed to ensure that there will be effective screening to prevent glint and glare effects from other individually planned solar farms. Therefore, cumulative effects would be unlikely and are considered **not significant**.

Ground Conditions

Baseline and Context

6.13.22. The land condition within the Order limits has been assessed to identify existing potential environmental land quality liabilities and constraints. A Preliminary Risk Assessment (PRA) has been prepared to identify and evaluate potential land quality risks and development constraints associated with the Scheme.

Assessment of Effects

6.13.23. Given the nature of activities associated with the proposed Scheme, the likely existing low levels of contamination anticipated from the sources identified and the nature of the likely exposure (transient, infrequent) to existing human health receptors and future users, the risk to human health is considered low.

6.13.24. Risks to controlled waters has been identified to be low to moderate/low based on the PRA. Construction works for the installation of the cables could temporarily mobilise contaminants within soil and potentially impact groundwater, however this is considered temporary.

6.13.25. Risk to existing infrastructure and future infrastructure is considered to be very low to low. The only significant infrastructure within the Order limits is the Cottam substation, but no intrusive works are planned in that area.

6.13.26. Despite the moderate/low rating for controlled waters, the risk to human health and controlled waters is considered acceptable. Therefore, the Scheme is not considered to pose an unacceptable risk to human health or the environment either during construction, operation, or decommissioning.

Mitigation Measures

6.13.27. During construction, the works will be undertaken in compliance with CDM 2015 regulations. Embedded mitigation to prevent surface runoff, discharge into watercourses and dust generation will form part of the construction phase obligations and requirements.

Cumulative Effects

6.13.28. Provided that the requirements of relevant policy and legislation relating to land contamination and remediation are integrated within the design and appropriate mitigation measures are applied during the demolition and construction phases of each cumulative scheme, it is considered that the cumulative effect on ground conditions will be **negligible**.

Major Accidents and Disasters

Baseline and Context

6.13.29. This section summarises the potential effects of the Scheme on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project.

6.13.30. “Accidents” are an occurrence resulting from uncontrolled developments in the course of construction, operation and decommissioning (e.g. a major emission, fire or explosion). “Disasters” are naturally occurring extreme weather events or ground related hazard events (e.g. subsidence, landslide, earthquake).

6.13.31. An exercise was undertaken to identify all possible major accidents or disasters that could be relevant to the Scheme. Major accidents or disasters with little relevance in the UK were not included, such as volcanic eruptions.

Assessment of Effects

6.13.32. Where there is potential for interaction between a major accident and disaster, receptor, and the Scheme, a qualitative evaluation has been provided. An effect is considered significant based on the effect it would have on the environment, as a result of the assessed accident or disaster occurring.

6.13.33. Risks of major accidents and disasters occurring during construction and decommissioning include:

- **Utilities failure (gas, electricity, water, sewage, oil, communications) –** electrical cables are required to connect generating and storage components with electricity management infrastructure within the Solar PV Array Areas and BESS before connecting to the onsite Gate Burton Substation;
- **Fire –** During construction and decommissioning, the Scheme is not expected to have an effect on the environment due to the risk of a major

accident occurring as a result of fire during construction and decommissioning.

- **Plant Disease –** The planting strategy for the Scheme has been developed to use native species as described in the **OLEMP [EN010131/APP/7.10]** of the ES. It is not proposed that planting is removed during decommissioning of the Scheme.
- **Criminal Damage –** The design will include safety measures to protect the sites from criminal damage, including fencing, CCTV cameras and lighting in critical areas. Therefore, the Scheme is not expected to have an effect on the environment due to the risk of a major accident occurring as a result of criminal damage during construction and decommissioning.

6.13.34. In relation to battery fire risk, an **Outline Battery Fire Safety Management Plan [EN010131/APP/7.1]** has been prepared which fully explores the risks associated with fires from BESS equipment and minimises the impact of an incident during construction, operation and decommissioning. An Unplanned Atmospheric Emissions from BESS Report (**ES Volume 3: Appendix 15-C [EN010131/APP/3.3]**) has been produced. This document provides an assessment of the potential consequences of unplanned emissions to air from the use of battery technology at Gate Burton Energy Park. Any selection of the BESS will be compliant with the Rochdale envelope principles listed within Work No. 2 of the **Outline Design Principles [EN010131/APP/2.3].**

6.13.35. The Applicant will update the Battery Safety Management Plan and Unplanned Atmospheric Emissions from BESS Report at detailed design stage to reflect the chosen technology, which would be shared with the council(s) and the local fire service for approval prior to the construction of the BESS.

Mitigation Measures

6.13.36. Mitigation measures to be implemented during construction and decommissioning are listed within the **Framework CEMP [EN010131/APP/7.3]** and the **Framework DEMP [EN010131/APP/7.5].**

6.13.37. An **Outline Battery Fire Safety Management Plan [EN010131/APP/7.1]** has been produced for the Scheme and will be updated and maintained as a 'live document' throughout the operational phase of the Scheme. A **Framework Operational Environmental Management Plan** (OEMP) **[EN010131/APP/7.4]** has also been prepared to manage environmental risks during operation.

Cumulative Effects

6.13.38. With embedded mitigation to reduce the risk of fire and other identified events, it is not expected that any cumulative schemes would increase the risk of severity of the residual effects associated with major accidents and disasters affecting the Scheme. Telecommunications, Television Reception and Utilities

Baseline and Context

6.13.39. This section evaluates the effects of the Scheme on telecommunication infrastructure, television reception and existing utilities.

6.13.40. The area surrounding the Scheme receives television signals from the Belmont transmitter, located approximately 35km east. There are several mobile phone masts present within the Order limits.

Assessment of Effects

6.13.41. The Scheme is unlikely to interfere with telecommunications infrastructure and therefore no effects are anticipated in the construction, operation, and decommissioning phases. A number of existing 11kV overhead lines will be diverted within the Order limits.

6.13.42. The Scheme consists of fixed low-lying infrastructure and is therefore unlikely to interfere with digital television signals. No effects are anticipated in the construction, operation and decommissioning phases.

6.13.43. Avoidance measures are included as part of the embedded mitigation for the Scheme to avoid potential impacts to existing utilities. These include locating the Scheme outside of utilities protection zones; the use of ground penetrating radar before excavation to identify any unknown utilities; and consultation and agreement of construction/demobilisation methods prior to works commencing. These measures, along with those listed within the **Framework CEMP [EN010131/APP/7.3]**, would reduce the likelihood of effects on utilities during construction.

Mitigation Measures

6.13.44. The risk of damage to utilities during construction would be minimised through protective measures within the DCO and embedded mitigation, which would involve those measures listed above, close liaison with utility providers and mapping infrastructure that crosses the Scheme and avoiding it through the design. The draft DCO also includes protective provisions for the protection of electronic communication networks and utilities, and engagement with relevant statutory undertakers in this respect is ongoing. No further mitigation would be required.

Cumulative Effects

6.13.45. The Scheme has been assessed to have no effect on telecommunication, television, or utilities. It is expected that the other solar developments included within the cumulative schemes shortlist would also have no effect on telecommunications and television reception and would adhere to the same mitigation as set out above to reduce the risk of damaging utilities. Therefore, no cumulative effects are expected on telecommunications, television reception, or utilities.

Materials, Waste and Recycling

Baseline and Context

6.13.46. This section identifies the expected waste streams from the Scheme and how they will be managed. Design life, replacement frequency and recycling of key Scheme components is considered.

6.13.47. Wastes are defined as including include surplus spoil, scrap, recovered spills, unwanted surplus materials, packaging, office waste, wastewater, broken, worn-out, contaminated or otherwise spoiled plant, equipment, and materials.

Assessment of Effects

6.13.48. Given the nature of the Scheme, significant quantities of waste are not anticipated. Following the implementation of appropriate control measures, included a Site Waste Management Plan (SWMP), **no significant** waste impacts are anticipated during the construction of the Scheme.

6.13.49. During operation, waste arisings are expected to be small in quantity, and would be managed by appropriately permitted commercial waste carriers and facilities.

6.13.50. During the anticipated 60-year operational life of the Scheme, it is expected there will be requirement for periodic replacement of some, or all, of the Solar and Energy Storage Park elements. The overall recovery rate for the recycling of these elements is expected to be greater than 60% (and potentially greater than 90%) and therefore effects are assessed to be **minor/negligible** and **not significant.**

6.13.51. A **Framework Decommissioning Environmental Management Plan** (DEMP) **[EN010131/APP/7.5]** has been prepared that sets out the general principles to be followed in the Detailed Decommissioning Plan that will be prepared prior to decommissioning occurring.

Mitigation Measures

6.13.52. Significant residual effects are defined as moderate or major. No such effects are expected for waste and as such, no additional mitigation measures are required.

Cumulative Effects

6.13.53. The quantities of construction waste are expected to be very small in the context of regional construction waste arisings, no cumulative waste impacts during construction are expected.

6.13.54. It is likely that the waste generated by the Scheme during operation and decommissioning would be managed by specialist regional or national facilities, and that such facilities would be developed over the operational period in response to demand generated by the UK-wide PV industry. Therefore, no cumulative waste impacts during any phase of the Scheme have been identified.

6.14. Cumulative Effects and Interactions

6.14.1. The potential for effect interactions and cumulative effects as a result of the Scheme are presented in **Chapter 16: Cumulative Effects and Interactions** of the ES **[EN010131/APP/3.1].**

6.14.2. Effect interactions are the combined effect of individual impacts from the Scheme that are considered likely to result in a new or different likely significant effect, or an effect of greater significance, than any one of the impacts on their own. The assessment draws on the assessment of impacts provided in **Chapters 6** to **15** of the ES **[EN010131/APP/3.1].**

6.14.3. No significant effect interactions are anticipated as a result of the construction, operation, or decommissioning of the Scheme.

6.14.4. Cumulative Effects are where there is the potential for two or more developments that are reasonably foreseeable to lead to cumulative effects on the same receptor. **Chapters 6** to **15** of the ES **[EN010131/APP/3.1]** provide conclusions of potential cumulative effects. A detailed description of the assessment methodology for cumulative effects can be found in **Chapter 5: EIA Methodology** of the ES **[EN010131/APP/3.1].**

6.14.5. Assessment of the cumulative impact on Climate Change; Cultural Heritage; Ecology and Nature Conservation; Water Environment; Noise and Vibration; Socio-Economics and Land-Use; Transport and Access; Human Health; and Other Environmental Topics found **no significant** cumulative effects. Cumulative construction and operational effects on landscape character and visual amenity were identified from the Scheme together with the proposed West Burton, Cottam and Tillbridge Solar projects. These have a combined **Moderate Adverse** cumulative impact on landscape, which is considered **significant.**

7. Summary and Conclusions

7.1.1. The ES explains the findings of the EIA process that has been undertaken for the Scheme. Feedback from the formal consultation process has been taken into account when preparing the DCO Application and in undertaking the EIA process.

7.1.2. A number of environmental impact avoidance, design and mitigation measures have been identified to mitigate and control environmental effects during construction, operation (including maintenance) and decommissioning of the Scheme. These are secured through appropriate requirements and controls within the DCO Application.

8. References

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Figures

Filename: \\na.aecomnet.com\fs\EMEA\Croydon-UKCRD\Legacy\UKCRD\1FP001\UKCRD1FP001-V1\E\projects\general\GIS\Projects\Gate Burton Energy Park\02_Maps\Environmental Statement\Non-Technical Summary\NTS_ES_Figure1_SiteBoundary.mxd

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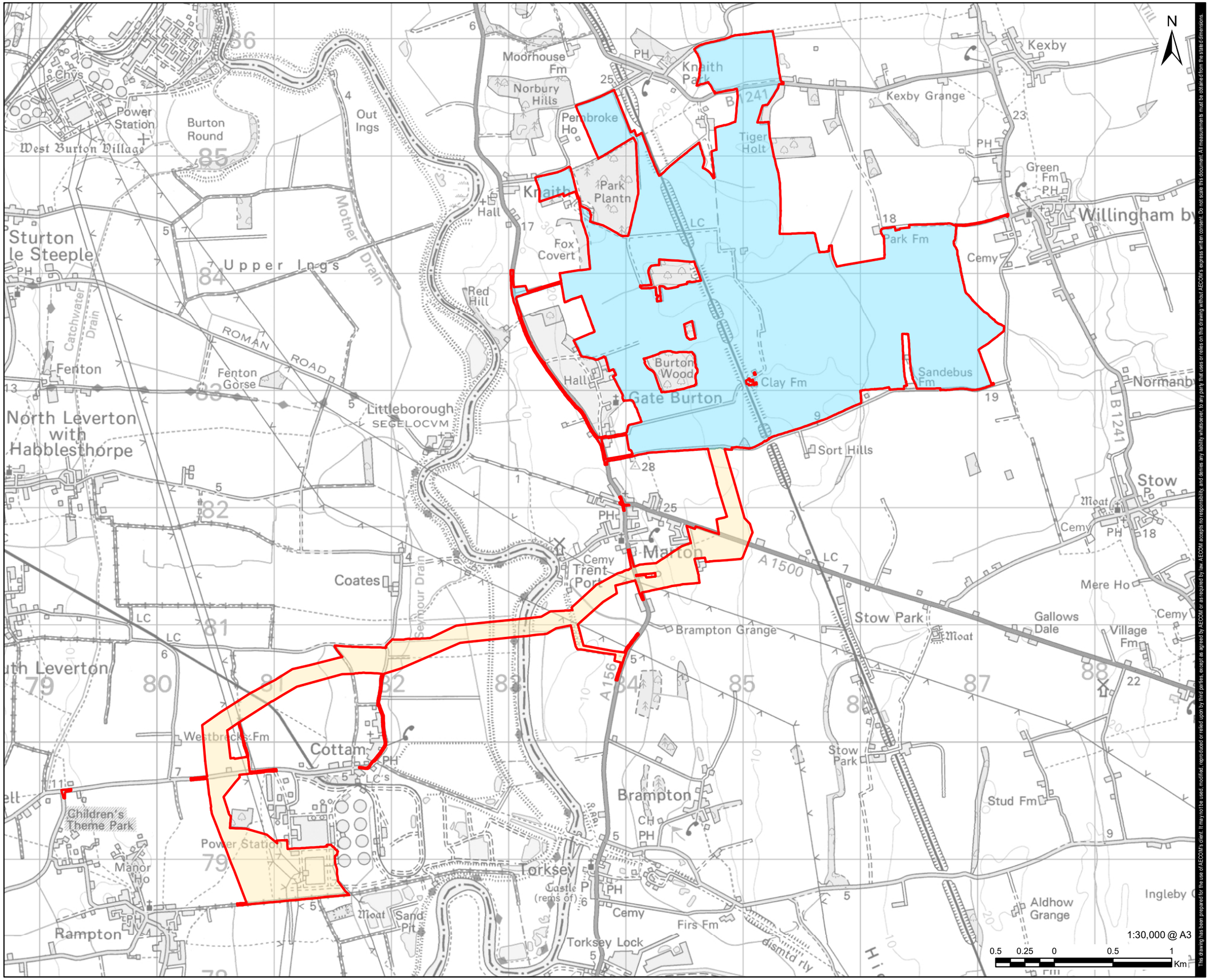

AECOM

PROJECT

Gate Burton Energy Park

CLIENT

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www.aecom.com

LEGEND

- Order Limits
- Solar and Energy Storage Park
- Grid Connection Corridor

NOTES

ISSUE PURPOSE

Non-Technical Summary

PROJECT NUMBER

60664324

FIGURE TITLE

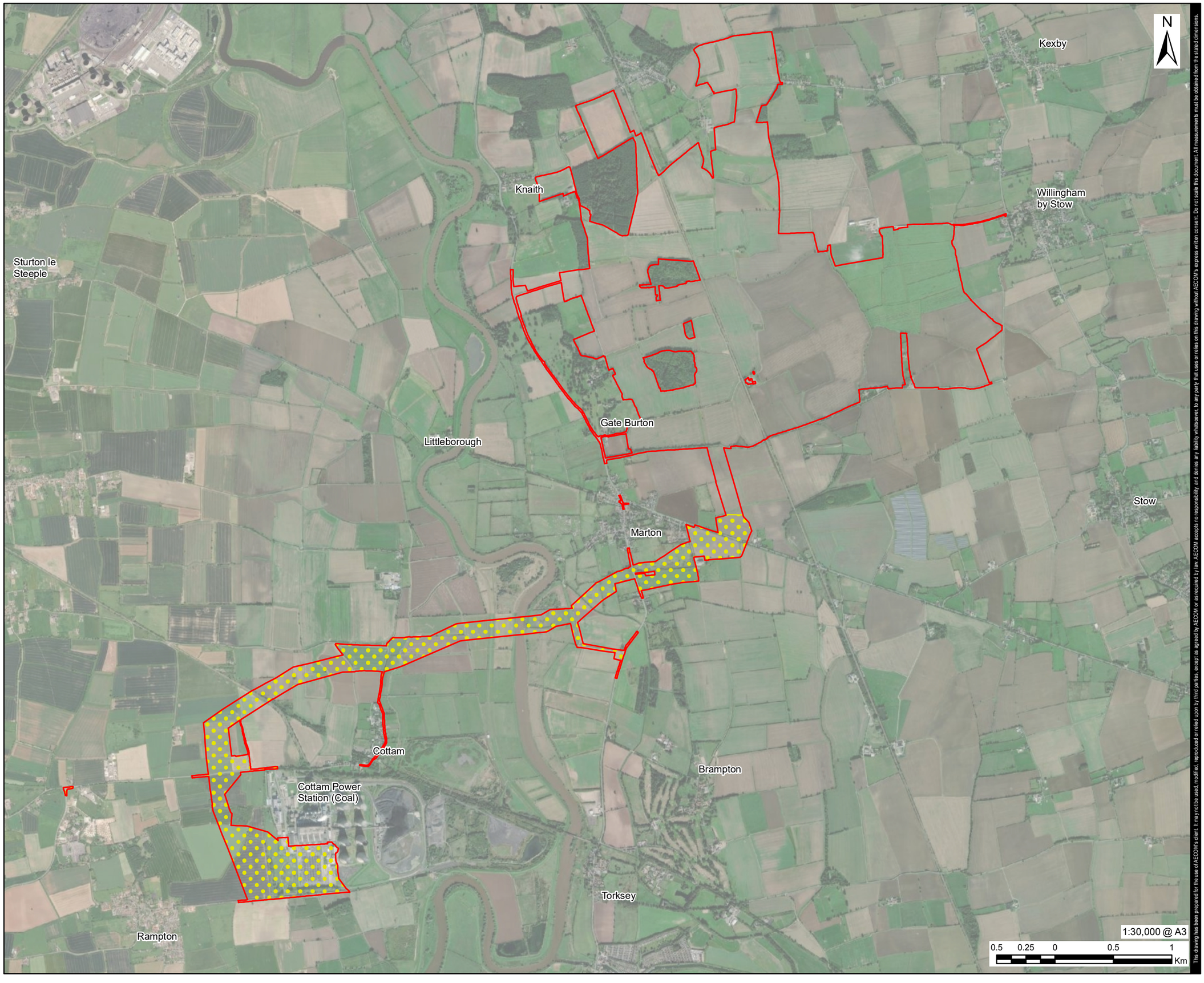
Scheme Boundary

FIGURE NUMBER

Figure 1

Filename: \\na.aecomnet.com\fs\EMEA\Croydon-UKCRD1\Legacy\UKCRD1FP001\UKCRD1FP001-V1\E\projects\general\GIS\Projects\Gate Burton Energy Park\02_Maps\Environmental Statement\Non-Technical Summary\NTS_ES_Figure2_Shared Corridor.mxd

Revision: 01 Drawn: BF Checked: NW Approved: WB Date: 2023-01-18



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PROJECT

Gate Burton Energy Park

CLIENT

Gate Burton ENERGY PARK

CONSULTANT

AECOM Limited
Sunley House
4 Bedford Park
Surrey, CR0 2AP, UK
www.aecom.com

LEGEND

- Gate Burton Order
- Gate Burton, West Burton and Cottam Shared Grid Connection Corridor

NOTES

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ISSUE PURPOSE

Non-Technical Summary

PROJECT NUMBER

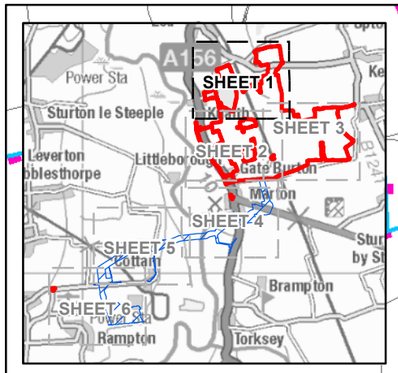
60664324

FIGURE TITLE

Shared Grid Connection Corridor

FIGURE NUMBER

Figure 2



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www.aecom.com

LEGEND

- Solar and Energy Storage Park
- Solar Panel Exclusion Zone
- Solar Panel
- Construction Compound
- Power Conversion Unit (PCU)
- Security Fence

Proposed Mitigation/Enhancement

- Proposed or Strengthened Hedgerow
- Tree and Shrub Belt Planting
- Proposed Species Rich Grassland
- Heritage Setting Buffer
- Existing Hedge with Trees - 10m Buffer
- Ancient Woodland and Existing Woodland - 15m Buffer

Existing Infrastructure/Features

- A Road
- B Road
- Public Right of Way
- Internal Access Road
- Railway
- Ordinary Watercourse
- Existing Hedgerow with Trees
- Existing Hedgerow
- Existing Woodland
- Waterbody/Watercourse

Environmental Designations

- Grade II Listed Building
- Ancient Woodland
- Scheduled Monument

ISSUE PURPOSE

Non-Technical Summary

PROJECT NUMBER

60664324

FIGURE TITLE

Indicative Site Layout Plan
Sheet 1 of 6

FIGURE NUMBER

Figure 3

Revision: 01 Drawn: VC Checked: RW Approved: WB Date: 2023-01-18

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Revision: 01 Drawn: VC Checked: RW Approved: WB Date: 2023-01-18

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SHEET 1

Existing Woodland Buffer of 15m to protect tree roots.

Substation and BESS located here in an area of very low flood risk and reduced visibility.

Access from A156 (construction and limited use during operation.)

Heritage setting buffer to provide an offset of infrastructure from the non-designated parkland and number of listed buildings at Gate Burton (including the Grade II* listed Gate Burton Hall and Burton Château).

Existing Woodland Buffer of 15m.

BURTON WOOD

SHEET 3

Removal of panels to reduce visual effects of residential properties.

Access from Clay Lane (operational phase only)

Removal of panels from areas of surface water flood risk and creation of skylark plots.

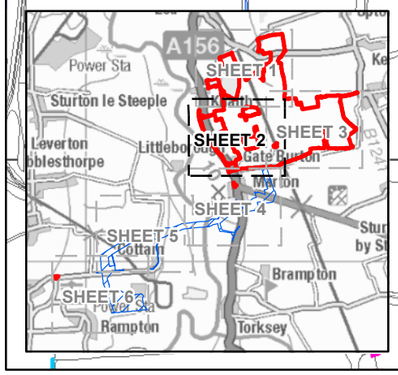
SHEET 4

Lapwing field and removal of panels from area of archaeology

A156

A5 A6 A7 A8 A9 A11 A12 A13 A14 A15 A16 A17 A18 A19 A20 A21 A22

B9 B10 B12 B13 B15 B16 B18 B19 B20 B24 B25



N

1:8,000 @ A3

100 50 0 100 200 m

AECOM

PROJECT

Gate Burton Energy Park

CLIENT

Gate Burton ENERGY PARK

CONSULTANT

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Sunley House
4 Bedford Park
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LEGEND

- Solar and Energy Storage Park
- Grid Connection Corridor
- Solar Panel Exclusion Zone
- Solar Panel
- Construction Compound
- Power Conversion Unit (PCU)
- Security Fence
- Water Supply Easement
- Water Supply and 400kV Cable Route Easement

Proposed Mitigation/Enhancement

- Proposed or Strengthened Hedgerow
- Proposed Species Rich Grassland
- Heritage Setting Buffer
- Existing Hedge with Trees - 10m Buffer
- Ancient Woodland and Existing Woodland - 15m Buffer

Existing Infrastructure/Features

- A Road
- Public Right of Way
- Internal Access Road
- Railway
- Main River
- Ordinary Watercourse
- Existing Hedgerow with Trees
- Existing Hedgerow
- Existing Woodland
- Waterbody/Watercourse

Environmental Designations

- Grade II* Listed Building
- Grade II Listed Building
- Ancient Woodland

ISSUE PURPOSE

Non-Technical Summary

PROJECT NUMBER

60664324

FIGURE TITLE

Indicative Site Layout Plan
Sheet 2 of 6

FIGURE NUMBER

Figure 3

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Building Buffer of 25m from panels.

Marton Road Access (limited construction and operation).

10m offset from centreline of watercourses.

Indicative Skylark plots to provide open areas for these species.

Removal of panels to reduce visual effects on residential properties.

Removal of panels to reduce visual effects of residential properties.

Removal of panels from areas of higher flood risk and creation of skylark plots.

Removal of panels from areas of surface water flood risk and creation of skylark plots.

Access from Marton Road (operational phase only).

Lapwing field habitat and visual buffer from properties to the south and east.

SHEET 1

SHEET 2

SHEET 4

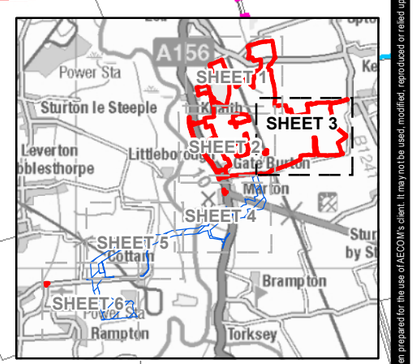
B1241

B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23 B24 B25 B26 B27 B28

C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12

A17 A21 A22

N



1:8,000 @ A3

100 50 0 100 200 m

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LEGEND

- Solar and Energy Storage Park
- Grid Connection Corridor
- Solar Panel
- Construction Compound
- Power Conversion Unit (PCU)
- Security Fence
- Lapwing Field

Proposed Mitigation/Enhancement

- Proposed or Strengthened Hedgerow
- Tree and Shrub Belt Planting
- Proposed Species Rich Grassland
- Existing Hedge with Trees - 10m Buffer
- Ancient Woodland and Existing Woodland - 15m Buffer

Existing Infrastructure/Features

- B Road
- Public Right of Way
- Internal Access Road
- Railway
- Ordinary Watercourse
- Existing Hedgerow with Trees
- Existing Hedgerow
- Existing Woodland
- Waterbody/Watercourse

Environmental Designations

- Grade II Listed Building

ISSUE PURPOSE

Non-Technical Summary

PROJECT NUMBER

60664324

FIGURE TITLE

Indicative Site Layout Plan
Sheet 3 of 6

FIGURE NUMBER

Figure 3

Date: 2023-01-18 Approved: WB Checked: RW Drawn: VC Revision: 01

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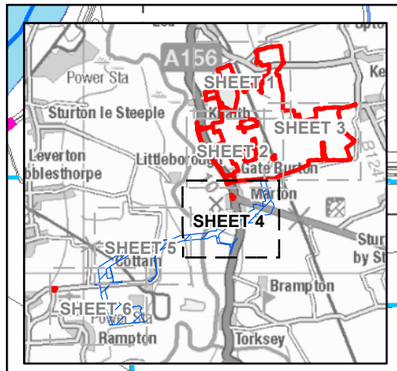

Lapwing field and removal of panels from area of archaeology

flood risk and creation of skylark plots.

SHEET 2

SHEET 3

SHEET 5

A1500

A156

N

1:8,000 @ A3

100 50 0 100 200 m

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LEGEND

- Solar and Energy Storage Park
- Grid Connection Corridor
- Solar Panel
- Security Fence
- Water Supply and 400kV Cable Route Easement

Proposed Mitigation/Enhancement

- Proposed or Strengthened Hedgerow
- Proposed Species Rich Grassland
- Heritage Setting Buffer
- Existing Hedge with Trees - 10m Buffer
- Ancient Woodland and Existing Woodland - 15m Buffer

Existing Infrastructure/Features

- A Road
- Public Right of Way
- Internal Access Road
- Railway
- Main River
- Ordinary Watercourse
- Existing Hedgerow with Trees
- Existing Hedgerow
- Existing Woodland
- Waterbody/Watercourse

Environmental Designations

- Grade I Listed Building
- Grade II Listed Building
- Scheduled Monument

ISSUE PURPOSE

Non-Technical Summary

PROJECT NUMBER

60664324

FIGURE TITLE

Indicative Site Layout Plan
Sheet 4 of 6

FIGURE NUMBER

Figure 3

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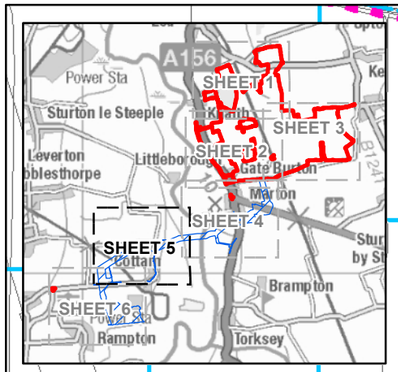

N

SHEET 4

SHEET 6

1:8,000 @ A3

100 50 0 100 200 m

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LEGEND

- Grid Connection Corridor
- Public Right of Way
- Railway
- Main River
- Ordinary Watercourse
- Existing Hedgerow with Trees
- Existing Hedgerow
- Existing Woodland
- Waterbody/Watercourse

Environmental Designations

- Grade II Listed Building

ISSUE PURPOSE

Non-Technical Summary

PROJECT NUMBER

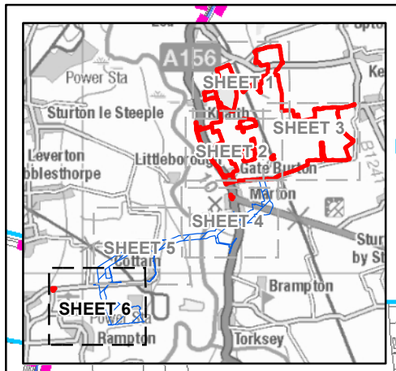
60664324

FIGURE TITLE

Indicative Site Layout Plan
Sheet 5 of 6

FIGURE NUMBER

Figure 3



SHEET 5

N

1:8,000 @ A3

100 50 0 100 200 m

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LEGEND

- Solar and Energy Storage Park
- Grid Connection Corridor
- Proposed Species Rich Grassland
- Railway
- Ordinary Watercourse
- Existing Hedgerow with Trees
- Existing Hedgerow
- Existing Woodland
- Waterbody/Watercourse

Environmental Designations

- Grade I Listed Building
- Grade II Listed Building
- Scheduled Monument

ISSUE PURPOSE

Non-Technical Summary

PROJECT NUMBER

60664324

FIGURE TITLE

Indicative Site Layout Plan
Sheet 6 of 6

FIGURE NUMBER

Figure 3

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LEGEND

- Grid Connection Corridor
- Access Location and 50m x 50m Compound
- Grid Connection Compound Areas

NOTES

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ISSUE PURPOSE

Non-Technical Summary

PROJECT NUMBER

60664324

FIGURE TITLE

Grid Connection Access Locations and Construction Compounds

FIGURE NUMBER

Figure 4

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