



Stonestreet Green Solar

Environmental Statement

Volume 1: Non-Technical Summary

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The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



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1 Introduction

1.1 Background and Purpose

- 1.1.1 This document provides a Non-Technical Summary ('NTS') of the Environmental Statement ('ES') that has been prepared on behalf of EPL 001 Limited¹ ('the Applicant') for the proposed Stonestreet Green Solar project ('the Project') on land located to the north and west of the village of Aldington, Kent.
- 1.1.2 The Applicant has submitted an application to the Planning Inspectorate for a Development Consent Order² ('DCO') from the Secretary of State for Energy Security and Net Zero ('Secretary of State') for the construction, operation and decommissioning of solar photovoltaic ('PV') arrays and energy storage, together with associated infrastructure and an underground cable connection to the existing National Grid Sellindge Substation. The application is hereafter referred to as the 'DCO Application'.
- 1.1.3 The purpose of this NTS is to describe the Project and to provide a summary of the ES in non-technical language.

1.2 Overview of the Project

- 1.2.1 The land for which DCO consent is sought is referred to as the 'Order limits'. Land within the Order limits is known as the 'Site'. The Site area is approximately 192 hectares ('ha'). The Site is located to the north and west of the village of Aldington, to the south-east of Ashford in Kent. The Project lies within the administrative areas of Kent County Council ('KCC') and Ashford Borough Council ('ABC') local authorities.
- 1.2.2 The location of the Project is shown on **Figure 1.1: Site Location Plan**. The Order limits are shown on **Figure 1.2: Order Limits**.
- 1.2.3 The Project will include a generating station (incorporating solar arrays) with a total capacity exceeding 50 megawatts ('MW'). The Project also includes a battery energy storage system. The Applicant has secured a grid connection agreement which will allow the Project to export and import of up to 99.9 MW of electricity to the grid. The Project will connect to the existing National Grid Sellindge Substation, and therefore the UK electricity transmission system, via a new 132 kilovolt ('kV')

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² A Development Consent Order is the means of obtaining permission to construct and maintain developments categorised as Nationally Significant Infrastructure Projects which are large scale projects defined by the Planning Act 2008.

substation constructed as part of the Project and cable connection under the High Speed 1 ('HS1') and Network Rail railway.

1.3 The Applicant

- 1.3.1 EPL 001 Limited is a wholly owned subsidiary of Evolution Power Limited. Evolution Power Limited is a UK-based independent solar developer established to develop affordable and sustainable renewable energy projects that will help the UK meet its legally binding net zero emissions target by 2050.

1.4 Legislation and Planning Policy Context

- 1.4.1 The Project is classified as a Nationally Significant Infrastructure Project ('NSIP') under the Planning Act 2008 and therefore requires a DCO.
- 1.4.2 An ES has been produced to accompany the DCO Application, as required by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations'¹), in order to ensure that the Examining Authority (who considers the DCO Application), and the Secretary of State (who makes the ultimate decision as to whether consent should be granted for the Project) are aware of the likely significant effects on the environment as a result of the Project when taking their decision.
- 1.4.3 In accordance with the Planning Act 2008 and associated guidance and regulations, the Applicant conducted non-statutory consultation and statutory consultation during 2022, 2023 and 2024. Further details of this consultation are provided in **Section 4** of this NTS.
- 1.4.4 The ES complies with all the required elements of the EIA Regulations (set out in Schedule 4 of the EIA Regulations) and is based on a Scoping Opinion adopted by the Planning Inspectorate on 30 May 2022 (**ES Volume 4, Appendix 1.1: EIA Scoping Opinion (Doc Ref. 5.4)**).
- 1.4.5 The ES takes account of relevant national and local planning policy, although an assessment of the Project against policy is provided in the **Planning Statement (Doc Ref. 7.6)** which accompanies the DCO Application.

1.5 Environmental Statement Structure and Authors

- 1.5.1 The ES has been co-ordinated by Quod and prepared by a team of competent experts. Quod is a registrant of the EIA Quality Mark scheme run by the Institute of Environmental Management and Assessment ('IEMA'). The ES comprises the following documents: **Volume 1: Non-Technical Summary (Doc Ref. 5.1)**, **Volume 2: Main Text (Doc Ref. 5.2)**, **Volume 3: Figures (Doc Ref. 5.3)**; and **Volume 4: Appendices (Doc Ref. 5.4)**.

2 Site and Context

2.1 Introduction

2.1.1 This Section provides a description of the Site and its surrounding context, including key features and designations that may be affected by the Project.

2.2 The Site – Location and Context

2.2.1 The Site is located approximately 6.5km to the south east of Ashford Town Centre and approximately 13.7km to the west of Folkestone Town Centre, in the county of Kent. The Site is located to the north and west of the village of Aldington, centred at Ordnance Survey ('OS') National Grid Reference ('NGR') TR 05898 37766.

2.2.2 The Site covers an area of approximately 192 ha (approximately 474 acres) and comprises mainly agricultural fields in use for arable crops and grazing, with hedgerows and tree belts. The Site includes land on the eastern side of the existing National Grid Sellindge Substation.

2.2.3 **Figure 2.1** labels individual land parcels ('Fields') and other areas within the Site used for descriptive purposes throughout the ES and this NTS. These include:

- South Western Area (Fields 1 to 9);
- Central Area (Fields 10 to 19 and 23 to 25);
- South Eastern Area (Fields 20 to 22);
- Northern Area (Fields 26 to 29);
- Project Substation (location of the Project Substation, in the north western section of Field 26);
- 'Cable Route Corridor' (export of electricity from the Project at 132 kV via underground cables (the 'Grid Connection Cable') to the Sellindge Substation) and 'Cable Route Crossing' (use of an existing cable duct under the HS1 / Channel Tunnel Rail Link railway or through Horizontal Directional Drilling ('HDD') beneath HS1 for the Grid Connection Cable); and
- Sellindge Substation (location of the existing Sellindge Substation).

2.2.4 Vehicular access to the Site can be gained from Station Road which joins the A20 Hythe Road to the north and M20 motorway Junction 10a northwest of the Site.

2.2.5 Station Road and Calleywell Lane run north to south within, and next to, the Central Area of the Site. Bank Road and Roman Road cross the Central Area and South Western Area of the Site. The Site also includes an existing access track at Bank Farm (which connects to Roman Road) and part of Goldwell Lane.

- 2.2.6 The Northern Area lies adjacent to, and is accessed, via Station Road. The South Eastern Area lies adjacent to and is accessed via Goldwell Lane. The Central Area lies adjacent to and can be accessed via Station Road, Calleywell Lane and Roman Road. The South Western Area lies adjacent to Roman Road and Laws Lane and can be accessed via Roman Road.
- 2.2.7 The East Stour River flows through the Northern Area (Fields 26 to 29) and adjacent to Fields 25 to 19 within the Central Area. Small open channel watercourses also run through the Site and generally drain towards and into the East Stour River.
- 2.2.8 The HS1 / Channel Tunnel Rail Link, and a mainline railway line operated by Network Rail, are located adjacent to the Northern Area, Cable Route Corridor and Sellindge Substation. The Sellindge Sewage Treatment Works is located adjacent to the Sellindge Substation. The M20 motorway lies north of the railway, approximately 250m from the Site at its closest point.
- 2.2.9 Overhead National Grid transmission lines, connecting to the Sellindge Substation, cross the South Eastern Area. An existing solar farm development, known as 'Partridge Farm', is located approximately 700m east of the Northern Area.
- 2.2.10 A network of Public Rights of Way ('PRoW') and a Byway Open to All Traffic ('BOAT') cross the Site.

2.3 Environmental Designations / Sensitivities

- 2.3.1 The Site is not subject to any national or local designations for landscape value. The Kent Downs National Landscape ('NL'), formally known as the Kent Downs Area of Outstanding Natural Beauty, is approximately 330m to the south and 3km north east of the Site.
- 2.3.2 There are no designated built heritage assets within the Site (Scheduled Monuments or Listed buildings). The Site includes certain areas that hold potential for archaeology as defined by the ABC Local Plan³. A Protected Military Remains ('PMR') crash site of a German aircraft from World War II is located partly⁴ within the Site, although evidence indicates the aircraft was removed.
- 2.3.3 Designated heritage assets recorded within 1km of the Site include two Grade I Listed buildings, six Grade II* Listed buildings, seventy Grade II Listed buildings, two Conservation Areas and three further PMR sites.
- 2.3.4 The Site is not subject to any statutory designations for nature conservation. There is one statutory designated site of national importance for ecological interest within 2km of the Site: Hatch Park Site of Special Scientific Interest ('SSSI') which is

³ Ashford Borough Council (2019) – Ashford Local Plan 2030. Adopted February 2019

⁴ A Ministry of Defence licence granted to the Applicant under The Protection of Military Remains Act 1986 identifies the location as a radius of 100 metres around OS map reference: TR 059374 (in Field 17) which extends partly outwith the Order limits.

located approximately 1.8km to the north of the Site. One statutory designated site of local importance, Poulton Wood Local Nature Reserve ('LNR'), is located approximately 470m south of the Site at its closest point. There are several non-statutory designated sites within 1km of the Site, including Backhouse Wood Local Wildlife Site ('LWS') (adjacent to the Northern Area), Aldington Sand Pit LWS (approximately 55m south east of the Site), Aldington Woods LWS (approximately 370m south of the Site), and Bilsington Woods and Pasture LWS (approximately 720m south west of the Site).

- 2.3.5 The majority of the Site is classified by the Environment Agency as being within Flood Zone 1 where there is a low probability of flooding. Most of the Northern Area and parts of the Central Area, Cable Route Corridor and Sellindge Substation are within Flood Zone 2 and Flood Zone 3 where there is a medium and high probability of flooding, respectively. Some areas of the Site are also at risk of surface water flooding.
- 2.3.6 A flood storage area, an area that floods with water during periods of high river levels, known as the Aldington Flood Storage Area, is located partly within in the Northern Area. The Aldington Flood Storage Area flood defence embankment is located to the east of Fields 24 and 25.

3 The Project Description

3.1 Overview

- 3.1.1 The Project comprises a renewable energy generating project with solar PV panels and on-Site energy storage (battery) and other infrastructure. The PV panels will be ground-mounted and will convert the sun's energy into electricity for storage on-Site. The Project will have a total generating capacity over 50MW and will connect via an underground cable to the existing National Grid Substation at Sellindge. The Applicant has an agreed grid connection for the Project that will allow the export and import of up to 99.9MW to the national energy grid. The Project will have an operational lifespan of up to 40 years. Once it ceases to operate it will be decommissioned.

3.2 Rochdale Envelope (Design Parameters and Principles)

- 3.2.1 The main components of the Project are described within Section 3.3 below and more detail is provided in **ES Volume 2, Chapter 3: Project Description (Doc Ref. 5.2)**. Flexibility is required in the DCO Application, as the technologies proposed are rapidly evolving, to allow the Project to utilise the best available technology at that time to maximise the benefits the Project will deliver. The detailed design for the Project will therefore be confirmed following the grant of the DCO for the Project.
- 3.2.2 The DCO Application defines design parameters and principles within which the Project must be constructed, operated and decommissioned. This is to ensure that the likely significant environmental effects of the Project are no worse than those assessed in the EIA and that the effects of the Project have been properly assessed. This is known as a 'Rochdale Envelope' and is defined by the **Works Plans (Doc Ref. 2.3)** and **Design Principles (Doc Ref. 7.5)**. The **Works Plans (Doc Ref. 2.3)** show the extent of the proposed Project within the Order limits and have been developed to minimise the impacts of the Project. The **Design Principles (Doc Ref. 7.5)** include commitments and rules that will set the framework for the detailed design.

3.3 Project Components

- 3.3.1 The Project is described in Schedule 1 of the **Draft Development Consent Order (Doc Ref. 3.1)** where the 'Authorised Development' is described using the relevant Work No. each part of the Project relates to. Each Work No. is summarised below:

Works No. 1: Solar PV Generating Station

- 3.3.2 PV panels will be located within the PV Arrays as shown on the **Works Plans (Doc Ref. 2.3)** within Fields 1 to 25. PV panels are not proposed in Fields 26 to 29 but these fields include landscaping, biodiversity and socio-economic enhancements. PV panels will be up to 3.5m above ground level and will be at least 0.8m from the

ground. PV panels will be fixed to metal frame mounting structures which will be attached to galvanised steel piles driven into the ground. The distance between each row of PV panels will be between 2m and 5m and PV panels would be at least 3.2m from security fencing.

Works No. 2: Balance of System and Battery Energy Storage System ('BESS')

- 3.3.3 Inverters, transformers, switchgear and ancillary equipment are required to manage the electricity generated by the PV panels. This equipment will be sited in up to 32 'Inverter Stations' located across the Site.
- 3.3.4 A BESS is proposed to allow electricity generated by the PV panels or imported from the National Grid to be stored and discharged at a later time, to provide grid balancing services to the electricity grid. Battery storage and associated heating, ventilation and cooling ('HVAC') systems, monitoring and other equipment will be housed within individual metal containers, referred to as 'BESS Units'. BESS Units will be located within the Inverter Stations.
- 3.3.5 BESS Units and Direct Current to Direct Current ('DC-DC') converters (which convert the electricity generated into a usable voltage) are expected to be located at all Inverter Stations except for Fields 9 and 20 to 22. Noise barriers will be in place at Inverter Stations.
- 3.3.6 Intermediate Substations combine electricity from several Inverter Stations at 33kV prior to export to the Project Substation and will be located in Fields 3, 15, 20 and 26.
- 3.3.7 The height of the balance of system and BESS infrastructure will be up to 4m.

Works No. 3: Project Substation

- 3.3.8 An electrical substation for the Project is proposed in Field 26 of the Northern Area adjacent to the HS1 and Network Rail railway lines. The Project Substation will receive electricity from each of the Intermediate Substations and this electricity will be transformed at the Project Substation from 33kV to 132kV for export to the electricity grid via the Grid Connection Cable.
- 3.3.9 The Project Substation will be located in a fenced compound which will include a high voltage switchroom, control room buildings, welfare facilities, busbars and storage containers. Infrastructure within the Project Substation will be up to 7.5m above ground level. The Project Substation will be sited on a newly constructed platform at a level which is not at risk of flooding.

Works No. 4: Grid Connection and Sellindge Substation Extension

- 3.3.10 Electricity generated by the Project will be exported to the existing National Grid Sellindge Substation via a new 132kV Grid Connection Cable. Limited extension works will be required at Sellindge Substation (up to 0.05ha). The Grid Connection Cable will be installed within the Cable Route Corridor which runs from the Project

Substation to Sellindge Substation, approximately 2km to the east. To connect into Sellindge Substation the Grid Connection Cable will need to cross under HS1 and the Network Rail railway lines either via existing cable ducts or via new ducts using drilling methods known as HDD. The Cable Route Corridor also crosses the East Stour River and in this location, HDD will be used.

Works No. 5: Associated Works

- 3.3.11 The Project will include fencing, gates and security measures, including CCTV.
- 3.3.12 Operational lighting will be limited to emergency and overnight maintenance lighting only at Inverter Stations, Intermediate Substations and the Project Substation. During the construction and decommissioning phases temporary lighting may be required.
- 3.3.13 Electrical cabling (excluding the Grid Connection Cable) will be at varying voltages depending on the location within the Project. Cables will be installed to connect the South Eastern Area with the Intermediate Substation in Field 20 along a length of approximately 1.2km of Goldwell Lane.
- 3.3.14 Internal access tracks will be provided for access to the BESS Units and water storage tanks.

Works No. 6: Site Access

- 3.3.15 The main access to the Project ('Primary Site Access') during construction, operation and decommissioning will be from Station Road into the Northern Area. Access to the South Western Area will be via the existing Bank Farm access track off Roman/Bank Road. Access to the South Eastern Area will be via Goldwell Lane.

Works No. 7: Construction and Decommissioning Works

- 3.3.16 During the construction and decommissioning phases, several temporary construction compounds will be required, including two Primary Construction Compounds in Fields 25 and 26 and four Secondary Construction compounds located in Fields 8/9, 19, 20 and 23. An off-road internal haulage road will be used to reduce the use of local roads during construction and decommissioning. Where the internal haulage road crosses the East Stour River, watercourses and drains, temporary bank to bank bridge crossings will be provided.

Works No. 8: Green Infrastructure, Boundary Treatments and Crossing Structures

- 3.3.17 The Project has been carefully designed to integrate into the existing landscape and green infrastructure network, with the objective of minimising landscape and biodiversity impacts and maximising benefits. The Project will also enhance existing habitats such as hedgerows through planting and will create new habitats to benefit wildlife. A small number of trees and up to 150m of hedgerow will be removed to allow construction of the Project. Ancient woodland and veteran trees will be

protected by buffer zones. Illustrative landscape proposals include 2.82ha of native woodland planting, 11.25km of existing hedgerow enhancements (through planting) and 5.48km of new hedgerow planting. New Biodiversity Improvement Areas ('BIA') are also included in the Project, including part of the Northern Area adjacent to the East Stour River.

Site Wide Works

- 3.3.18 Site wide works would also be undertaken such as drainage, landscape and biodiversity enhancements.
- 3.3.19 The Project will require temporary and permanent closures and diversions of PRowS but will also introduce new and extended footpaths.

3.4 Construction

Programme

- 3.4.1 Construction works are expected to commence in 2026 and be fully complete in 2027 and are likely to take place over a 12-month period.

Activities

- 3.4.2 The main activities during the construction phase will include the following:
- **Enabling and site preparation** – clearance, set up of access, compounds and security, PRowS diversions/extinguishment, layout out of internal haulage road and internal access tracks, service diversions, import of materials;
 - **Installation of key infrastructure** – installation of mounting structures and PV panels, trenching and connecting cabling, installation of Inverter Stations and Intermediate Substations (including earthworks, foundations and use of cranes to lift equipment), installation of cabling and water storage tanks;
 - **Project Substation Construction** – this will be undertaken over multiple phases and will require retaining structures and bulk earthworks with the import of fill materials to create a suitable development platform;
 - **Grid Connection Cable and Sellindge Substation Extension** – installation of the 132kV Grid Connection Cable using trenching in sections and HDD methods and extension of the Sellindge Substation; and
 - **Commissioning and site restoration / landscaping** – installation of equipment and checks, testing, removal of compounds and landscape planting / biodiversity enhancements.

Construction Hours of Work and Workers

- 3.4.3 Construction working hours will be 8am until 6pm on Monday to Friday and 8am to 1pm on Saturdays. Start-up and shut-down works will be undertaken before and

after normal working hours (i.e. 7am to 8am and 6pm to 7pm on Monday to Friday and 7am to 8am and 1pm to 2pm on Saturdays).

- 3.4.4 The Applicant expects that there will be on average 132 construction workers on-Site at any one time. This is expected to increase to 199 during peak periods of construction activity.

Construction Management

- 3.4.5 The construction phase will be subject to management documents which will limit and control activities. The outline documents submitted with the DCO Application include:
- **Outline Construction Environmental Management Plan ('CEMP') (Doc Ref. 7.8)** - sets out the strategy, standards, control measures and monitoring procedures that will be implemented to manage and mitigate adverse environmental effects of the construction process;
 - **Outline Construction Traffic Management Plan ('CTMP') (Doc Ref. 7.9)** - sets out the strategy and approach to traffic routing and management to minimise disruption effects on the local community and environment;
 - **Outline Landscape and Ecological Management Plan ('LEMP') (Doc Ref. 7.10)** - sets out the overarching principles for minimising, managing and / or mitigating the environmental effects of the Project;
 - **Outline Rights of Way and Access Strategy ('RoWAS') (Doc Ref. 7.15)** – includes measures to minimise disturbance to users of PRoW and access; and
 - **Outline Battery Safety Management Plan ('BSMP') (Doc Ref. 7.16)** - sets out the key fire safety provisions for the BESS proposed to be installed as part of the Project.

3.5 Operation

- 3.5.1 During the 40-year operational phase the activities on-Site will be limited and are expected to amount to maintenance and servicing of plant and equipment (including fire mitigation infrastructure), habitat and vegetation management, and monitoring to ensure effective operation of the Project.
- 3.5.2 An **Outline Operational Management Plan ('OMP') (Doc Ref. 7.11)** accompanies the DCO Application and includes design and other mitigation measures to prevent or reduce potential adverse environment effects relevant to the operation of the Project (including maintenance, monitoring and reporting).
- 3.5.3 An **Outline LEMP (Doc Ref. 7.10)** accompanies the DCO Application and sets out the principles of the landscape proposals and how new or enhanced habitats within the Site will be managed throughout construction, operation and decommissioning. The **Outline BSMP (Doc Ref. 7.16)** will also apply to the operational phase of the Project.

3.6 Decommissioning

- 3.6.1 Decommissioning is expected to take place over a 12-month period, and expected to occur after 40 years of operation of the Project. Following the operational lifetime of the Project, all infrastructure built as part of the Project will be removed from the Site (with the exception of elements of Work No. 4 that are within Sellindge Substation, any repairs, upgrades or replacements of/to the existing bridge / drain crossings, PRow footbridges and highway improvements). Materials will be recycled or disposed of in accordance with good practice, market conditions and available technologies at that time.
- 3.6.2 An **Outline Decommissioning Environmental Management Plan ('DEMP')** (Doc Ref. 7.12) and the **Outline Decommissioning Traffic Management Plan ('DTMP')** (Doc Ref. 7.13) accompany the DCO Application. These outline management plans include measures to avoid or reduce effects on the environment and disruption effects on the road users and the local community. The **Outline LEMP (Doc Ref. 7.10)** and **Outline BSMP (Doc Ref. 7.16)** will also apply to the decommissioning phase of the Project.
- 3.6.3 After decommissioning, the Site will be returned to the control of the landowners and it is assumed that the landowners will return those areas of the Site that are currently in arable use back to arable use, except for limited areas of established habitats.

4 Consultation

4.1 Introduction

- 4.1.1 Consultation is an integral part of the DCO process. Consultation is undertaken with statutory consultees, the local community and the general public with the aim to inform design development and to identify specific issues that may need to be addressed prior to submission of the DCO Application.
- 4.1.2 The Planning Act 2008 requires applicants for DCOs to carry out formal (statutory) pre-application consultation on their proposals.
- 4.1.3 The Applicant has undertaken extensive consultation throughout the development of the Project during the pre-application stage.

4.2 Pre-Application Consultation

- 4.2.1 A multi-stage approach to consultation was undertaken by the Applicant, with an initial stage of non-statutory consultation undertaken in Spring 2022 (the '2022 Non-Statutory Consultation'), followed by statutory consultation in Autumn 2022 (the '2022 Statutory Consultation') and Summer 2023 (the '2023 Statutory Consultation').
- 4.2.2 Subsequent rounds of targeted consultation were undertaken in November to December 2023 (the '2023 Targeted Consultation') and in February to March 2024 (the '2024 Targeted Consultation').
- 4.2.3 A summary of each stage of consultation is provided below.

4.3 2022 Non-Statutory Consultation

- 4.3.1 Non-Statutory Consultation was undertaken between 25 March and 29 April 2022. Events were held locally where attendees were able to ask questions of the Applicant's Project team, and a website was set up at www.stonestreetgreensolar.co.uk where a copy of consultation information was made available.
- 4.3.2 Responses were received from consultees which informed the design development of the Project.

4.4 EIA Scoping

- 4.4.1 The Applicant submitted an EIA Scoping Report and a request for an EIA Scoping Opinion to the Secretary of State on 19 April 2022. A Scoping Opinion was provided by the Planning Inspectorate on behalf of the Secretary of State on 30 May 2022.

4.5 2022 Statutory Consultation

- 4.5.1 The 2022 Statutory Consultation was undertaken between 25 October and 29 November 2022. The Applicant prepared a Preliminary Environmental Information

Report ('PEIR') in advance, taking feedback from the 2022 Non-Statutory Consultation into account.

- 4.5.2 Following the 2022 Statutory Consultation, further refinements were made to the Project. Additional studies and surveys were also undertaken, including ecological surveys, viewpoint analysis, landscape and biodiversity improvements, archaeological mitigation strategy and refinement of the PRoW strategy.

4.6 2023 Statutory Consultation

- 4.6.1 Further statutory consultation was undertaken between 12 June and 17 July 2023 to provide an update on design development and progress of the Project. A PEIR Addendum was prepared, collating changes to technical assessments made as a result of changes to the Project and feedback from the 2022 Statutory Consultation.
- 4.6.2 Further updates were then made to the Project as a result of responses to the consultation.

4.7 2023 and 2024 Targeted Consultations

- 4.7.1 The Applicant made a number of minor, localised amendments to the Site boundary as a result of feedback from the consultation, resulting in a total decrease of the area within the proposed Site boundary that was consulted on in the 2023 Statutory Consultation. The Applicant undertook the 2023 Targeted Consultation on the changes between 13 November and 13 December 2023.
- 4.7.2 The Applicant undertook a further targeted consultation (the 2024 Targeted Consultation) between 12 February and 12 March 2024 in relation to a further minor change of the Order limits.
- 4.7.3 In both cases, a targeted approach rather than a full re-consultation was considered to be appropriate given the minor, localised nature of the changes.

4.8 Consultation Responses

- 4.8.1 All responses received during consultation have been carefully considered and the Applicant has had regard to them in the development of the Project in accordance with the Planning Act 2008. The responses have been summarised, sorted according to their theme, in the **Consultation Report (Doc Ref. 6.1)**, which also sets out the regard had to them by the Applicant, as well as whether they have led to a design change.

5 Alternatives and Design Evolution

5.1 Introduction

5.1.1 The EIA Regulations require that the ES includes a description of the reasonable alternatives studied by the Applicant relevant to the Project and indicate the main reasons for selecting the option chosen (i.e. the final scheme). **ES Volume 2, Chapter 5: Alternatives and Design Evolution (Doc Ref. 5.2)** presents the project requirements, an overview of the justification for selecting the Site, alternative sites raised during consultation, how the design has evolved, and the reasonable alternatives studied by the Applicant.

5.2 Project Requirements and Site Selection

5.2.1 The Applicant's site selection process was informed by their design requirements for the Project which were:

- A single, large-scale solar scheme which makes a meaningful contribution to the UK's urgent requirements for renewable energy capacity and onshore energy security with an export capacity to the national grid of up to 99.9MW of electricity that enables the full utilisation of the available grid connection capacity at Sellindge;
- The ability to host a battery storage system within the Site area to maximise the energy generated and exported to the electricity network and provide further resilience to the electricity network through utilisation of the 99.9MW import and export rights held by the Project;
- Sufficient land for PV panels, battery energy storage system, supporting infrastructure, landscape planting and biodiversity to ensure the Project can be delivered with minimal local and environmental impacts; and
- A viable, proximate and available connection to the electricity grid network.

5.2.2 The south east of England was identified by the Applicant as a suitable area for the Project as it receives higher levels of sunlight relative to other parts of the UK and has high levels of local demand for electricity.

5.2.3 A range of factors are considered when investigating and assessing any potential site for large scale ground-mounted solar PV development. These include solar irradiation levels (light energy from the sun), proximity to an available connection to the electricity grid, topography, field size / shading, access to the site for construction and commercial agreements with landowners, and the availability of land. Environmental and social factors are also important such as proximity of a site to residential dwellings; agricultural land classification; accessibility; PRoW network; landscape; ecological and geological designations; visual amenity; flood risk; and cultural heritage.

- 5.2.4 The key commercial requirement for a solar project is the ability to export the electricity generated. This can either be to the national grid infrastructure or to a local energy user. The location near to an available grid connection at Sellindge Substation is a key advantage of the Site.
- 5.2.5 Following an analysis of the above, the Applicant concluded that the Site represented a suitable area for solar and energy storage development, and that there was not another identifiable area that provided a better alternative site that could connect to the Sellindge Substation.
- 5.2.6 In the 2022 Statutory Consultation responses, two specific areas of land were raised by consultees as possible alternative sites, being land north and south of the M20 and the Site and industrial areas on the outskirts of Ashford. These have been discounted by the Applicant as they are not suitable alternatives which would meet the Project requirements.

5.3 'Do Nothing' Alternative & Reduced Development Scale

- 5.3.1 If the Project did not go ahead, the Site would likely remain in agricultural use. This would reduce the probability of the UK achieving its goal of net zero by 2050 and would not meet the Project objectives. The 'Do Nothing' alternative is therefore not considered to be a reasonable alternative.
- 5.3.2 A significantly reduced scale proposal to the Project is not considered by the Applicant to be a reasonable alternative. This is because a substantially smaller Project would not be able to deliver the same electricity generation capacity as the current proposals and would therefore not meet the Project requirements.

5.4 Project Design Process

- 5.4.1 The Applicant has undertaken a number of consultation stages as summarised in **Section 4** of this NTS. The Project design has been informed by assessments of environmental effects, planning policy, engineering and design issues, as well as consultation responses and engagement with stakeholders.

5.5 Alternative Site Extent

- 5.5.1 The extent of the Order limits has evolved during the design process and has been informed primarily by consultation feedback, design considerations and land ownership constraints. A number of land parcels were initially considered by the Applicant and discounted mainly because of land not being available or potential environmental effects. The extent of the Site has also been amended during the design process to ensure it includes the land required for development and excludes land that is not required. The indicative extent of the Site has increased from approximately 189 ha at the initial design stages to approximately 192ha.

5.6 Alternative Project Layouts

5.6.1 The extent and layout of the PV Arrays within the Site boundary has evolved throughout the design development stage, including changes that seek to avoid/minimise environmental effects and in response to stakeholder engagement. The extent of the PV Arrays in the 2022 Statutory Consultation project layout was approximately 122 ha. This has been reduced by 12 ha to approximately 110ha in the final Project design. Key factors that have influenced the layout are highlighted below:

- **Proximity to residential properties** - The layout of PV Arrays has evolved to ensure that infrastructure is set back from residential properties where possible. Set backs from properties were made in response to consultation and to allow additional planting to minimise visual effects.
- **Landscape and views** - The layout of the PV panels and proposed landscaping strategy has been informed by landscape and visual impact analysis and has been designed to be sympathetic to the area, contribute positively to the landscape character and quality of the area and to mitigate adverse effects. Additional planting and new hedges have been added to the layout, restoring historic hedgerows and breaking up the visual impact of the larger fields. Fields and panels have also been removed to reduce visual impacts.
- **Ecology, biodiversity and trees** – The layout of the PV panels and other infrastructure has been designed to minimise adverse impacts on biodiversity and maximise enhancements where possible. The layout of the PV Arrays has been designed to ensure appropriate setbacks from ancient woodland, veteran trees, other woodland, the East Stour River and badger setts. Area of PV panels have been removed from the layout during the design process and replaced with biodiversity and landscaping planting. Additional biodiversity enhancement areas were also added to deliver more benefits for wildlife.
- **Site access** – The location of the Primary Site Access, Primary Construction Compounds, and Project Substation has been selected in the north-east of the Site so that traffic avoids local settlements, which will minimise disruption and safety risks. An internal (off-road) haulage road was included to minimise use of the local roads during construction. Internal access tracks were also added to the Project following the 2023 Statutory Consultation to allow emergency access to Inverter Stations.
- **PRoW** - The layout of the Project has been designed to minimise the impacts on the PRoW network, by minimising the number and length of PRoW diversions. The Project also seeks to deliver improvements to the existing PRoW network with new routes. The Project layout has been amended during the design process following consultation feedback from KCC and other stakeholders. This included the addition of new PRoW routes.
- **Flood Risk** - The extent and height of PV panels and Inverter Stations

have been adjusted in response to areas of flood risk. Notably PV panels are no longer proposed in Fields 26 to 29 following further detailed flood analysis.

- **Cultural Heritage** – New hedgerows were added to the Project along the lines of historic hedgerows which would restore these features to the landscape. The siting of the Inverter Stations was adjusted to ensure they are located outside of areas of archaeological potential. PV panels were removed from the western edge of Field 3 adjacent to the barn located close to Stoneless (Grade II* listed building).
- **Glint and Glare** - PV panels have been removed from Fields 26 to 29 to reduce glint and glare effects.
- **Noise** - Key components of the Project were moved further away from residential dwellings to minimise noise impacts on residential receptors. Noise barriers will be provided along the norther and eastern boundaries of the Project Substation and will be provided at all Inverter Stations.

5.7 Alternative Technology

- 5.7.1 Ground-mounted solar PV panels together with energy storage is considered to represent the most appropriate electricity generating technology for the Site.
- 5.7.2 Alternative renewable energy technologies such as wind, pumped hydro-storage or small scale nuclear would not meet the Project requirements and have therefore not been considered by the Applicant.
- 5.7.3 The Project includes BESS Units which will be located within the Inverter Stations across the Site. Some solar projects include a BESS which is centralised, where BESS Units are all located in the same area (i.e. a single compound). A centralised BESS design was rejected by the Applicant in favour of the proposed approach, primarily due to reasons of improved efficiency, fire safety, and reduced noise and landscape / visual effects.

5.8 Alternative Substation Locations

- 5.8.1 An alternative location for the Project Substation was initially identified in the eastern part of the Site adjacent to the East Stour River adjacent to the north eastern corner of Field 27. This location was discounted as the location is at higher risk of flooding and is more visible than the proposed location in Field 26. The alternative location in Field 27 was also discounted as it is less accessible and would require additional construction, land take and associated environmental effects than the proposed location in Field 26.

5.9 Alternative Grid Connections and Cable Routes

- 5.9.1 In the 2023 Statutory Consultation, the Applicant included an 'Alternative Cable Route' which connected the grid connection cable to Sellindge Substation via an

existing tower adjacent to the HS1 / Network Rail railway line. However this is no longer required.

- 5.9.2 A cable connection is also required from the Project Substation to the South Eastern Area. The Applicant chose to use Goldwell Lane within the existing highway for this connection rather than trenching across agricultural fields, as this land was not available due to third party land agreements and would result in ecology and archaeology effects. Temporary noise and traffic disruption effects on Goldwell Lane would be managed through the detailed CEMP(s)/DEMP(s) and CTMP(s)/DTMP(s).

5.10 Construction Stage Alternatives

- 5.10.1 The location of the primary and secondary compounds were selected due to their proximity to the Project Substation location and internal haulage road. They are sited away from residential receptors and other sensitive areas. No alternative locations were considered. In the 2022 and 2023 Statutory Consultations, the Applicant proposed that a single Primary (main) Construction Compound, three Secondary Construction Compounds and other laydown areas would be required. In response to further engineering design input, an additional Primary Construction Compound and Secondary Construction Compound were added to provide greater flexibility in how the Project is delivered.

6 EIA Methodology

6.1 Introduction

- 6.1.1 The EIA requirement for the Project is defined by the EIA Regulations. The EIA Regulations set out the statutory process and minimum requirements for the environmental information to inform decision making.
- 6.1.2 The ES has been compiled in accordance with the EIA Regulations, advice published by the Planning Inspectorate and relevant guidance. The ES builds on the scope and methodology presented within the PEIR and PEIR Addendum which has been adopted in the EIA process.

6.2 EIA Scope

- 6.2.1 The purpose of the EIA scoping process is to determine which topics should be included in the EIA and the level of detail to which they should be assessed.
- 6.2.2 The Applicant submitted an EIA Scoping Report in support of a request for an EIA Scoping Opinion to the Secretary of State on 19 April 2022. The Scoping Opinion was provided by the Planning Inspectorate on behalf of the Secretary of State on 30 May 2022.
- 6.2.3 The **ES Volume 2: Chapters 1 to 6 (Doc Ref. 5.2)** provide an introduction to the DCO Application and Project; a description of the Site; a description of the Project; the consultation process undertaken by the Applicant; the alternatives that were considered during the design evolution of the Project; and the EIA methodology.
- 6.2.4 The following topic specific chapters and assessments are scoped into the assessment of the ES and are provided in **ES Volume 2, Chapters 7 - 15 (Doc Ref. 5.2)**:
- Chapter 7: Cultural Heritage;
 - Chapter 8: Landscape and Views;
 - Chapter 9: Biodiversity;
 - Chapter 10: Water Environment;
 - Chapter 11: Land Contamination;
 - Chapter 12: Socio-economics;
 - Chapter 13: Traffic and Access;
 - Chapter 14: Noise; and
 - Chapter 15: Climate Change.

- 6.2.5 **ES Volume 2, Chapter 16: Other Topics (Doc Ref. 5.2)** provides an assessment of topics that the Planning Inspectorate agreed did not require a stand-alone ES chapter including glint and glare; minerals; waste; telecommunications, television reception and utilities; and major accidents and disasters. **ES Volume 16: Chapter 16: Other Topics (Doc Ref. 5.2)** also signposts to mitigation measures and other information to evidence that the ES is compliant with the Scoping Opinion.
- 6.2.6 **ES Volume 2, Chapter 17: Cumulative Assessment (Doc Ref. 5.2)** documents the effect interactions that lead to combined effects on sensitive receptors and also provides a summary of cumulative effects with other development schemes.
- 6.2.7 An explanation of how matters raised in the Scoping Opinion have been addressed in the ES is provided in each technical chapter of the ES.

6.3 Assessment Methodology

- 6.3.1 The assessments in the ES identify, describe and assess the likely significant effects of the Project on the environment during the construction, operation and decommissioning phases of the Project. The significance of each environmental effect identified is generally determined by considering the sensitivity, importance or value of the environment (such as people or wildlife) and the actual change taking place to the environment (i.e. the size or severity of change taking place).
- 6.3.2 To aid comparison between environmental topics and understanding of the ES findings, standard terms are used wherever possible to describe the significance of effects (i.e. 'major,' 'moderate,' 'minor' and 'negligible'). Effects are also described as being adverse or beneficial. 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**'. Significant effects are shown in bold in this NTS for ease of understanding.
- 6.3.3 Environmental effects are evaluated using published standards and guidance, although some topics use bespoke criteria. Where it has not been possible to quantify effects (for example using modelling or calculations), qualitative assessments are made based on available knowledge and informed by professional judgement. Where uncertainty exists, this has been noted in each ES chapter.
- 6.3.4 Where the EIA predicts significant adverse effects, the ES considers whether there are further mitigation measures which could avoid or reduce the effect or reduce the likelihood of it happening. The use of any such mitigation is proposed to be secured through the DCO, should it be granted. The Project has been designed to avoid or reduce significant adverse environmental effects through the use of 'embedded mitigation' measures. This means that they are included within the design of the project or management plans, such as the **Outline CEMP (Doc Ref. 7.8)**. These measures are therefore considered as part of the EIA and the assessment of effects of the Project.

6.4 Cumulative Effects

- 6.4.1 The ES considers the potential for likely significant cumulative effects on the environment resulting from the Project combined with other development proposals. A list of other developments (cumulative schemes) has been prepared in line with Planning Inspectorate advice on cumulative impact assessment. This list was agreed with ABC and KCC and is included as **ES Volume 4, Appendix 6.1: List of Cumulative Schemes (Doc Ref. 5.4)**. A plan showing the cumulative schemes considered in the ES is provided as **ES Volume 3, Figure 6.1 – 6.3 (Doc Ref. 5.3)**.
- 6.4.2 **ES Volume 2, Chapter 17: Cumulative Assessment (Doc Ref. 5.2)** provides a summary of the cumulative effects reported in each topic chapter of the ES.

7 Cultural Heritage

7.1 Introduction

- 7.1.1 **ES Volume 2: Chapter 7: Cultural Heritage (Doc Ref. 5.2)** presents an assessment of the potential significant cultural heritage effects arising from the Project. The assessment considers the potential significant effects on designated and non-designated heritage assets, including archaeology, built heritage and historic landscape. Cultural heritage includes all aspects of the environment resulting from the interaction and relationships between people and places through time. Heritage assets include buildings, monuments, sites, places, areas or landscapes identified as having a degree of significance due to their heritage interest.

7.2 Assessment Method

- 7.2.1 The assessment considers the direct physical effects of the Project on below ground heritage assets and the historic landscape during construction. The assessment also considers how the Project could lead to indirect effects on heritage assets and the historic landscape, for example by affecting the setting of historic designated or non-designated buildings, during construction, operation and decommissioning.
- 7.2.2 The study area was refined following the 2023 Statutory Consultation and agreed with KCC and ABC which included all designated heritage areas with the potential to be affected by the Project. The study area included 2km from the Site for all designated heritage assets, up to 5km for heritage assets of the highest significance and some assets, of the highest significance, have also been considered beyond 5km.

7.3 Baseline Conditions

- 7.3.1 An Archaeological Desk Based Assessment, which includes an archaeological landscape assessment, geophysical survey, and targeted archaeological trial trenching, informs the assessment. The assessment is also supported by a Heritage Statement which provides an assessment of the significance of heritage assets and their settings.
- 7.3.2 There are no scheduled monuments, listed buildings, registered parks and gardens or conservation areas within the Site. On 5 September 1940, a Messerschmitt Bf109E-4 German fighter aircraft force crash landed in or near the Site (in the vicinity of Handen Farm). The crash site is designated as Protected Military Remains and the Ministry of Defence has issued a licence to the Applicant under The Protection of Military Remains Act 1986 that identifies the location as the area of land having a radius of 100m around a location north east of Handen Farm (which extends partly outwith the Order limits).

- 7.3.3 Designated heritage assets recorded within 5km of the Site include 30 Scheduled Monuments, 18 Grade I Listed buildings and 11 Grade II* Listed buildings. There are 155 Grade II Listed buildings within 2km of the Site and 5 Conservation Areas and one Registered Park and Garden within 5km of the Site. The nearest heritage assets to the Site boundary are the Grade II Listed assets at Bank Farm; 'Bank Farmhouse and wall attached' and 'Barn and 2 stable ranges attached, about 20 metres north of Bank Farmhouse'. Designated heritage assets within 2km and 5km of the Site are shown on **ES Volume 3, Figure 7.1a: Designated Heritage Assets within 2km of the Site** and **Figure 7.1b: Designated Heritage Assets within 5km of the Site Boundary (Doc Ref. 5.3)**. Three further PMR sites are within 1km of the Site (as shown on **ES Volume 3, Figure 7.6: Protected Military Remains within 1km of the Site (Doc Ref. 5.3)**). Archaeological investigation in July 2023 found the archaeological potential and value of the Site for Palaeolithic remains as low-medium value.
- 7.3.4 An Archaeological Landscape Assessment shows that the current landscape within the Site derives from 17th to 18th century enclosure, with few earlier elements of the landscape surviving including Roman Road/Bank Road and Aldington Mount. The surviving historic landscape elements are judged to be of medium value.

7.4 Assessment of Effects

- 7.4.1 The assessment takes into account embedded mitigation for the Project. The layout of the Project has been developed to avoid features of known archaeological potential and includes some flexibility to respond to archaeological features to minimise effects on archaeology. These measures are secured through an **Archaeological Management Strategy ('AMS') (Doc Ref. 7.17)** and the **Design Principles (Doc Ref. 7.5)**. This includes the use of a construction method for the PV panel mounting structures which is non-invasive.
- 7.4.2 The siting of infrastructure and landscape proposals have been developed to mitigate the effects of the Project on the setting and significance of heritage assets. Historic hedgerows will also be reinstated across the Site.

Construction Phase

- 7.4.3 There is the potential for physical (direct) effects on below ground archaeological remains and other heritage assets, such as historic hedgerows, and the historic landscape character within the Site. These effects would arise as a result of ground disturbance associated with the installation of the PV panels and associated infrastructure, including the cable route, and landscaping, including the removal of limited sections of hedgerow.
- 7.4.4 The PMR crash site within the Site is of high value although evidence suggests that the remains are no longer present. The effects would therefore be Slight (not significant).

- 7.4.5 Effects on archaeology from construction of the Project are assessed as Slight / Moderate Adverse (not significant) for the Bronze Age activity due to construction of the Project Substation. Effects on potential archaeological remains, including Roman Road, Roman roadside features, former field systems, boundary and agricultural features are all assessed as Neutral or Neutral / Slight Adverse (not significant).
- 7.4.6 A number of short sections of surviving historic hedgerows will be removed during construction, which will be replanted during construction and the remainder reinstated on decommissioning. The Project will also plant new hedgerows which will reinstate hedgerows present in the 17th/ 18th centuries. This is assessed as a Slight Adverse effect (not significant).
- 7.4.7 Construction activities associated with the Project could indirectly affect the setting of heritage assets, for example construction traffic and noise, vibration, lighting and the presence of temporary construction compounds. These effects would be controlled through the construction management plans and are assessed as Slight Adverse (not significant).

Operational Phase

- 7.4.8 The EIA Scoping Opinion confirmed that an assessment of the direct physical effects on below ground assets (i.e., archaeological remains) during operation could be scoped out of the ES as direct physical effects will only occur during construction phase of the Project. Effects on off-site heritage assets as a result of the Project will be indirect and Adverse and Not Significant as outlined below.

Scheduled Monuments

- North Downs Asset Group and Barrow Cemetery to the south-west of Barrowhill – Slight.

Grade I listed buildings

- Church of St Martin, Mersham Manor, and Church of St John The Baptist – Slight.

Grade II* listed buildings

- Stonegreen Hall and Evegat Manor – Slight.
- Stonelees - Slight / Moderate.

Grade II listed buildings

- Stonegreen Cottage, Goodwin Farmhouse, Stable/ Outbuilding about 20 yards North-west of Evegat Mill House - Neutral / Slight.
- Evegat Mill, Evegat Millhouse, The Old Cottage, Goldwell, Stable/ Outhouse about 10m north of Goldwell, Barn and 2 stable ranges attached, about 20 m north of Bank Farmhouse, Bank Farmhouse and walls attached, and Quested's Cottage, Symnells and Walled Forecourt - Slight.
- Church House – Neutral.

Grade II Registered Park and Garden

- Hatch Park - Neutral / Slight.

Conservation Areas

- Smeeth, Mersham, Bilsington and Aldington Clap Hill - Neutral / Slight.
- Aldington Church - Slight.

Non-designated Heritage Assets

- Aldington Mount - Slight.
- Little Gains Farm - Neutral / Slight.
- Handen Farm - Neutral / Slight.
- Littlestock Farm - Neutral / Slight.
- Farmstead North of Little Stock - Neutral / Slight.
- Stone Street Farm - Neutral / Slight.
- Goldwell Manor Farm - Neutral / Slight.

Historic Landscape

- Historic Landscape – Slight.

7.4.9 These effects will be largely temporary and reversible on decommissioning of the Project following its 40-year operational phase, although landscape planting measures will have a residual Neutral permanent effect (not significant).

Decommissioning Phase

7.4.10 Direct effects on below ground assets during decommissioning are scoped out of the assessment as physical effects will only occur during the construction phase. Indirect effects on the setting of heritage assets during the decommissioning phase would be Slight Adverse (not significant).

7.5 Cumulative Effects

7.5.1 The assessment considered a long list of cumulative schemes which were scoped out due to their scale, type of developments proposed, distance between the Project and the scheme, or lack of intervisibility.

7.5.2 During the construction phase, it is considered that the cumulative effects would be no worse than from the Project in isolation as outlined above.

7.5.3 During the operational phase, the EIA Scoping Opinion confirmed that an assessment of the direct physical effects on below ground assets during operation could be scoped out of the ES and as such no cumulative direct effects have been identified. The assessment has identified potential indirect cumulative effects on a number of receptors, from which the Project and the other schemes are visible.

These effects are assessed as Slight, Neutral or Neutral/Slight Adverse (not significant).

- 7.5.4 No direct or indirect cumulative effects have been identified for the decommissioning phase.

8 Landscape and Views

8.1 Introduction

- 8.1.1 **ES Volume 2: Chapter 8: Landscape and Views (Doc Ref. 5.2)** presents an assessment of the potential significant landscape and visual effects arising from the Project.

8.2 Assessment Method

- 8.2.1 The assessment of landscape and visual effects has been undertaken following the industry standard guidance.
- 8.2.2 The landscape and visual baseline conditions have been reviewed and recorded by way of desktop studies and field surveys during winter and summer. The baseline with respect to site context, land-use and pattern, topography, access, and designations has been described. The character and physical features of the Site and the visual baseline have also been described. The future baseline of the Site has been considered based on the year 2026.
- 8.2.3 An assessment of the likely landscape and visual effects of the Project has been undertaken during the construction phase and at Years 1 and 15 of operation, the latter taking account of the residual effects of the Project. The effects relating to the decommissioning of the Project have also been assessed. The assessments have been carried out on the basis of the Landscape and Visual Impact Assessment ('LVIA') Methodology set out in **ES Volume 4, Appendix 8.2 (Doc Ref. 5.4)** which was agreed with ABC and their appointed landscape advisers.
- 8.2.4 A night-time assessment has been carried out of the construction and decommissioning phases of the Project.

8.3 Baseline Conditions

- 8.3.1 The Site is not designated for landscape value, although it is within the setting of the Kent Downs NL, and there are Conservation Areas and numerous listed buildings within the study area, as well as Ancient Woodland adjacent to the Site. The Site is also partially within an area proposed to be designated as a Dark Sky Zone.
- 8.3.2 Review and analysis of national, county and borough level published landscape character assessments has been carried out. These assessments describe a raised landscape of mixed, open farmland with dramatic views to the North Downs enclosing a flat, open and sometimes denuded (eroded) valley landscape featuring historic mills; a mosaic of fields with mixed 'crest top' woodlands.

- 8.3.3 The Site includes an extensive area of mixed farmland with hedgerows and occasional trees which is sub-divided by country roads and sporadic clusters of houses. The landform varies from gently undulating to rolling, with the Site broadly occupying the East Stour River valley and a ridge known as 'Aldington Ridge'. Fields within the Site are often large scale. There are existing influences of infrastructure from the adjacent HS1 / Network Rail railway lines, Sellindge Substation and overhead power lines in the east. There are expansive views from higher ground towards the Kent Downs NL.
- 8.3.4 Strong hedgerow field boundaries mean that close range views from outside the Site are only typically glimpsed from the local network of country roads. The open nature of the East Stour River valley allows more open views, including from the network of PRow in the immediate landscape to the north, north-east and north-west of the Site. Views from the extensive network of PRow that run across the Site are always partial, and importantly, the Site is not visible in its entirety from any one location. There are close range views of the Site from a limited number of residential properties that lie adjacent to the Site. However, there are no views from the centre of local settlements, including the two Conservation Areas in Aldington, or from within Mersham and The Forstal. Visibility of the Site diminishes rapidly to the south, east, and west due to a combination of landform and vegetation, although Collier's Hill provides an elevated perspective over the western part of the Site, and there are glimpses of the parts of the Site closest to the East Stour River from the Aldington Ridge to east of the Site.
- 8.3.5 To the north, there is visibility of the Site from the northern valley sides of the East Stour River, where parts of the Site form a backdrop to the landscape. However, beyond the HS1 / Network Rail railway lines, the Site rapidly disappears from view due to intervening landform and vegetation, with only more distant glimpses possible from the undulating landscape to the north of the M20 motorway. The Site is barely perceptible from the Kent Downs NL due to distance, intervening landform and vegetation, and existing built form within the landscape. The Site is not considered to be a valued landscape.

8.4 Assessment of Effects

- 8.4.1 Mitigation has been embedded in the design of the Project to reduce the landscape and visual effects of the Project and provide beneficial effects. These measures have been informed by the findings of the baseline landscape and visual amenity conditions.

Construction Phase

- 8.4.2 No landscape receptors are expected to experience significant effects during the construction phase of the Project. This is due to the scale of Landscape Character Areas in relation to the Site, the lack of widespread, permanent and substantial changes to the physical fabric of the Site and the very short duration of effects relating to the construction and decommissioning phases. The level of effect on landscape receptors would be Negligible Adverse to Minor Adverse (not significant).

- 8.4.3 Three of the 44 assessed visual receptors are likely to experience **Moderate Adverse (significant)** effects during the construction phase of the Project. These are users of PRowS within/adjacent to the proposed PV Arrays (two receptor groups) and users of PRow AE401, Collier's Hill.
- 8.4.4 Four further receptors have been identified as having temporary, Minor-Moderate Adverse (not significant) effects including residents on Laws Lane, PRow AE449 users, residents on the northern edge of Aldington and Station Road.
- 8.4.5 No significant effects on night-time receptors have been identified as a result of the construction phase.

Operational Phase

- 8.4.6 The assessment of operational phase effects is informed by a series of Accurate Visual Representations ('AVRs')
- 8.4.7 Once operational, at Year 1 following completion, three landscape receptors are considered likely to experience significant effects. The Open Fields of the Site and the overall landscape Character of the Site will be subject to **Major-Moderate Adverse (significant)** effects, while the Aldington Ridge LCA will experience a **Moderate Adverse (significant)** effect.
- 8.4.8 However, following establishment of proposed planting at Year 15, these three receptors are considered likely to experience a combination of **Moderate Adverse** and **Moderate Beneficial (significant)** effects. Two further landscape receptors (Hedgerows and Canopy Trees) will be subject to **Moderate Beneficial (significant)** effects at Year 15 following establishment of proposed planting. Woodland will be subject to a Minor-Moderate Beneficial (not significant) effect due to the creation of new areas of woodland within the Site.
- 8.4.9 Two landscape receptors, the Upper Stour Valley and 2C Postling Scarp and Vale LCAs will experience Minor-Moderate Adverse (not significant) effects at Year 1 due to physical changes in the landscape due to the Project, which reduce to Minor Neutral and Minor Adverse (not significant), respectively, at Year 15. The remaining landscape receptors will be subject to effects that are Negligible (not significant).
- 8.4.10 At Year 1, 19 of the 44 assessed visual receptors are considered likely to experience **Moderate Adverse (significant)** effects as a result of the Project, with one receptor judged to experience a **Moderate-Major (significant)** effect. Most of these receptors are near or within the Site and include:
- PRow users (various);
 - Local residents (Laws Lane, Frith Road, Bank Road, Handen Farm/Cottage, Callywell Lane, Station Road (Evegate Mill House), on the northern edge of Aldington and Mersham); and
 - People travelling on local roads (Bank Road, Goldwell Lane / Station

Road).

- 8.4.11 Three receptors have been identified as likely to experience Minor-Moderate effects which are not significant at Year 1 including users of PRow (in Fields 26-29 and AE475 - Outside of the Site) and residents of The Forstal. Other visual receptors are likely to experience effects that are either Minor, Minor-Negligible, Negligible or nil (no effect) (not significant).
- 8.4.12 Following establishment of mitigation planting at Year 15, the number of visual receptors experiencing significant effects will reduce to four, all of which are **Moderate Adverse (significant)**: Users of PRow (within the Site), AE401 Colliers Hill and AE428 and people travelling on Bank Road. Visual effects on users of PRow within/adjacent to the Site with open panoramic views towards the Kent Downs NL and Users of PRow AE370, and residents on Bank Road and in Mersham would reduce to Minor-Moderate Adverse (not significant). Other visual receptors are likely to experience effects that are either Minor, Minor-Negligible, Negligible or nil (no effect) (not significant).
- 8.4.13 No significant night time effects are identified as the Project would not require permanent lighting.

Decommissioning Phase

- 8.4.14 Effects during the decommissioning phase are anticipated to be largely similar to the construction phase in terms of the nature of change and duration. It is assumed that decommissioning will not involve the removal of hedgerows or woodland. No significant effects have therefore been identified for landscape receptors during decommissioning.
- 8.4.15 One receptor has been identified as likely to experience significant effects during the decommissioning phase: Users of PRow AE401, Collier's Hill which would experience a temporary **Moderate Adverse (significant)** visual effect. The remainder of receptors will experience effects that are Minor Adverse, Negligible-Minor or Negligible (not significant).
- 8.4.16 No significant effects on any landscape and visual receptors within the Kent Downs NL have been identified at any stage of the Project.

8.5 Cumulative Effects

- 8.5.1 A cumulative assessment has been carried out including the following cumulative schemes:
- ID No. 3 Pivot Power Battery Storage;
 - ID No. 4 Walsh Power Condenser Project;
 - ID No. 7 Land north of 1 Church View, Aldington;
 - ID No. 8 Land south-west of Goldwell Court, Goldwell Lane;

- ID No. 9 East Stour Solar Farm; and
- ID No. 10 Otterpool Park Development.

- 8.5.2 The cumulative assessment identified that most receptors are unlikely to experience significant cumulative effects. One receptor (Users of PRow within / adjacent to the Site) is likely to experience a **Moderate Adverse (significant)** cumulative effect during the construction phase. No receptors will experience significant cumulative effects during the decommissioning phase.
- 8.5.3 During the operational phase, four visual receptors will be subject to significant cumulative effects at Year 1: People travelling along the North Downs Way in the Kent Downs NL (**Moderate Adverse**); users of PRow within / adjacent to the Site (**Moderate Adverse**); people travelling along Goldwell Lane (**Moderate Adverse**); and users of PRow AE474 (**Moderate Adverse**).
- 8.5.4 At Year 15, there will be a **Major – Moderate Adverse (significant)** cumulative effect on people travelling along the North Downs Way in the Kent Downs NL; a **Moderate Adverse (significant)** cumulative effect on users of PRow within /adjacent to the Site; and a **Moderate Adverse (significant)** cumulative effect on users of PRow AE474.

9 Biodiversity

9.1 Introduction

- 9.1.1 **ES Volume 2: Chapter 9: Biodiversity (Doc Ref. 5.2)** presents an assessment of the potential significant effects of the Project on ecology and biodiversity. The assessment considers effects on designated sites, habitats, protected species and other notable species.

9.2 Assessment Method

- 9.2.1 The effects of the Project on important ecological features are assessed in accordance with industry standard guidance on Ecological Impact Assessment. The assessment is informed by a desk-based study and ecological surveys undertaken across the Site between 2021 and 2024.

9.3 Baseline Conditions

- 9.3.1 Three sites of international ecological importance are within 10km of the Site (see **ES Volume 3, Figure 9.1: Locations of Statutory Designated Sites (Doc Ref. 5.3)**). These are the Wye and Crundale Downs Special Area of Conservation ('SAC'), Dungeness, Romney Marsh and Rye Bay Ramsar and Special Protection Area ('SPA') (incorporating Dungeness SAC), and the Folkestone to Etchinghill Escarpment SAC. One nationally important designated site is within 2km of the Site, Hatch Park Site of Special Scientific Interest ('SSSI'), and one site of local importance within 2km, the Poulton Wood Local Nature Reserve ('LNR').
- 9.3.2 The most important ecological features at or adjacent to the Site are: Backhouse Wood ancient woodland (which is also a Local Wildlife Site ('LWS')) (see **ES Volume 3, Figure 9.2: Locations of Local Wildlife Sites (Doc Ref. 5.3)**), the East Stour River (habitat of principal importance) and the population of yellowhammer birds which use the Site. Other ecological features present are associated with the arable and boundary habitats within the Site and include hedgerows, ponds, woodlands invertebrates, great crested newt ('GCN'), reptiles, breeding and wintering birds, bats, dormouse and brown hare.

9.4 Assessment of Effects

- 9.4.1 There is potential for effects on ecological receptors during construction, operation and decommissioning. Mitigation and compensation measures are embedded in the Project. These include the creation of habitat to mitigate and compensate for habitat loss during the construction and operation of the Project as shown on the **Illustrative Landscape Drawings (Doc Ref. 2.7)** and detailed within the **Outline LEMP (Doc Ref. 7.10)** and **Biodiversity Net Gain Assessment (Doc Ref. 7.1)** which accompany the DCO Application.

- 9.4.2 The Applicant is committed to delivering a biodiversity net gain which means that the Site would be of greater biodiversity value than its current value using a statutory method published by the Department for Environment, Food & Rural Affairs ('Defra'). This will be a biodiversity net gain of at least 100% for habitat biodiversity units, at least 10% for hedgerow biodiversity units and at least 10% for river biodiversity units.
- 9.4.3 Construction phase mitigation includes the implementation of species and habitat mitigation strategies as provided within the **Outline LEMP (Doc Ref. 7.10)** and implementation of good environmental construction practice as part of the **Outline CEMP (Doc Ref. 7.8)**.
- 9.4.4 The landscape proposals for the Project have been designed to deliver biodiversity benefits and include significant Biodiversity Improvement Areas across the Site. These areas would be managed to benefit wildlife.

Construction Phase

- 9.4.5 No significant adverse effects on any ecological designated sites or irreplaceable habitats including ancient woodland and veteran trees are identified during the construction phase. Existing habitats of value will be retained and protected during the construction phase.
- 9.4.6 The **Outline CEMP (Doc Ref. 7.8)** will be in place during construction to mitigate construction-related effects on biodiversity. Suitable protection zones will be set up around ancient woodland (including Backhouse Wood LWS and ancient woodland), veteran trees and other habitats that are to be retained.
- 9.4.7 Other measures will be in place to avoid adverse effects on protected species including ecological 'watching briefs' (including to mitigate impacts on breeding bird and otter habitats) and translocation of animals if needed (under a Natural England mitigation licence as required) and the retention and enhancement of habitats. Good practice measures for noise, water pollution, dust, air, vibration and lighting during construction would also be secured through the **Outline CEMP (Doc Ref. 7.8)** to minimise disturbance on habitats and species.
- 9.4.8 **Adverse effects (significant)** at a local level are identified on yellowhammer, brown hare and skylark due to temporary habitat loss and disturbance during the construction phase. The construction phase of the Project will not lead to significant effects on other important ecological features including protected species and notable species (e.g. breeding birds, bats, badgers, great crested newts and hazel dormouse).

Operational Phase

- 9.4.9 The Project will deliver landscape planting and Biodiversity Improvement Areas designed to mitigate effects on biodiversity. An **Outline LEMP (Doc Ref. 7.10)** is provided with the DCO Application which presents measures for the protection and management of ecologically important features.

- 9.4.10 No adverse effects are identified on any designated sites from the operational phase of the Project. Effects on the Backhouse Wood LWS and ancient woodland are assessed as local **beneficial (significant)** due to buffer planting, the diversification of habitat and reduction of pollution by the Project (in comparison to the existing agriculture uses at the Site). The Project will deliver net biodiversity gains and local **beneficial (significant)** effects are assessed on the habitats: hedgerows, ponds and the East Stour River. Local **beneficial (significant)** effects are also assessed on notable plants, invertebrates, great crested newts, common toads, reptiles, breeding and wintering birds (excluding yellowhammer and skylark), bats, hazel dormouse, otters, hedgehogs, harvest mouse and brown hare.
- 9.4.11 Potential adverse effects from inappropriate habitat management would be controlled by prescriptions within the **Outline LEMP (Doc Ref. 7.10)**.
- 9.4.12 A local **adverse (significant)** effect is assessed for skylark due to the alteration of nesting habitats for this species during the operational phase of the Project. This effect has been reduced as far as practically possible through provision of extensive open grassland areas for nesting and provision of suitable nesting habitat as compensation (nesting plots, wide margins, adjacent grassland) within and adjacent to the PV Arrays.

Decommissioning

- 9.4.13 The decommissioning effects will be broadly similar to construction but reduced in extent in terms of disturbance and habitat loss as only built infrastructure is to be removed before the Site is returned to the control of the landowner. Effects will be controlled through the species and habitat mitigation strategies provided within the **Outline LEMP (Doc Ref. 7.10)** and good practice as part of the **Outline DEMP (Doc Ref. 7.12)**.
- 9.4.14 Residual effects during decommissioning are assessed as either Negligible adverse (non-significant) or no-effect.

9.5 Cumulative Effects

- 9.5.1 The Project includes sufficient avoidance and retention of ecological features and the creation of extensive areas of new habitat. In combination with other mitigation and enhancement measures, the impacts and effects on ecological receptors have been minimised or avoided.
- 9.5.2 Overall, the cumulative schemes assessed to have potential to interact adversely with the Project incorporate sufficient mitigation within that scheme to avoid significant effects and thus interaction with Project adverse effects. The Project is therefore unlikely to have a significant adverse effect on important ecological features in combination (cumulatively) with other schemes.

10 Water Environment

10.1 Introduction

10.1.1 **ES Volume 2: Chapter 10: Water Environment (Doc Ref. 5.2)** presents an assessment of the potential significant effects of the Project on the water environment. The assessment considers the effect on surface water bodies, water quality, flood risk, groundwater and other related effects.

10.2 Assessment Method

10.2.1 The assessment methodology is informed by a desk-based study, site walkovers and a computer modelling study which predicts how water flows. The assessment considers the relative importance of surface water features and groundwaters, as well as their connectivity to hydrologically sensitive areas such as ecological designated sites. The approach to the modelling study was agreed through consultation with the Environment Agency and is presented in **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4)**.

10.3 Baseline Conditions

10.3.1 The Site lies within the 'East Stour' and 'Romney Marsh between Appledore and West Hythe' surface water catchments. The majority (around 99%) of the Site lies within the East Stour surface water catchment. The East Stour River flows adjacent to and through the north of the Site in a westerly direction. There are several small water features (lakes, ponds, watercourse and ditches) associated with these two surface water catchments within the Site.

10.3.2 Due to its proximity to the East Stour River, the Site is located across Flood Zones 1, 2 and 3. The Site is predominantly located in Flood Zone 1 (defined as having 'low' probability of flooding), although parts of the Site fall within areas designated as Flood Zone 2 ('medium' probability of flooding) and Zone 3 ('high' probability of flooding). A large flood storage area, the 'Aldington Flood Storage Area', and associated embankment are located in the northern part of the Site.

10.3.3 The majority of the bedrock beneath the Site is not considered to be an aquifer (i.e. it holds no groundwater). Areas of the Site are underlain by a principal aquifer, although there are no current permitted abstractions or known private water supplies within 2km of the Site; and the Site is not within a zone designed to protect groundwater (i.e. a Source Protection Zone).

10.3.4 The only designated ecological sites considered to have a possible significant hydrological connectivity with the study area are Hatch Park SSSI and Dungeness and Romney Marsh and Rye Bay Ramsar and SPA. All other designated sites are scoped out of the assessment.

10.4 Assessment of Effects

- 10.4.1 Embedded mitigation measures would be implemented during construction, operation and decommissioning to manage and mitigate potential effects from the Project, including effects on flood risk. These measures are set out in the **Outline CEMP (Doc Ref. 7.8)**, **Outline OMP (Doc Ref. 7.11)** and **Outline DEMP (Doc Ref. 7.12)**. An **Outline Operational Surface Water Drainage Strategy ('Outline OSWDS')** (Doc Ref. 7.14) accompanies the DCO Application and sets out how surface water would be managed by the Project.
- 10.4.2 The Project includes a set-back of 10m from the East Stour River and 8m from the flood defence embankment associated with the Aldington Flood Storage Area. The **Works Plans (Doc Ref. 2.3)** and **Design Principles (Doc Ref. 7.5)** have been carefully developed to reflect the prevailing flood risk from rivers (fluvial). This includes setting the location and height of key sensitive infrastructure so that flooding is not likely and siting PV panels above the projected height of flooding. PV panels were also removed from Fields 26 – 29.

Construction

- 10.4.3 The potential effects that could arise from the Project to the water environment during construction include increased flood risk, pollution effects of machinery leaks and spills as well as sediment laden runoff, and minor changes to runoff patterns, predominantly through loss of vegetation and permeable area.
- 10.4.4 The **Outline CEMP (Doc Ref. 7.8)** sets out the embedded mitigation measures developed for the Project in line with industry good practice. Detailed CEMP(s) will be developed before works commence which will provide further details of control measures including construction drainage arrangements. The measures within that document will control construction phase risk to the water environment such that the effects for surface water, groundwater and flood risk during construction are assessed as Negligible (not significant) on all receptors apart from the East Stour River which is assessed as Minor Adverse (not significant). Effects on all receptors are assessed as not significant.
- 10.4.5 The control measures include establishing the baseline water quality prior to construction with routine monitoring undertaken to monitor potential pollution impacts. If there is a detectable adverse change in water quality, a breakout plan for will be implemented. An Emergency Flood Response Plan will also form part of the detailed CEMP(s) which will include measures to ensure construction workers are safe during flood events.

Operational Phase

- 10.4.6 The potential effects arising from the Project on the water environment during operation include pollution effects from machinery leaks and spills during maintenance, changes in storm water runoff and effects on flood risk.

- 10.4.7 The **Outline OSWDS (Doc Ref. 7.14)** includes measures to effectively mitigate potential effects in relation to pollution, changes in storm runoff through the use of Sustainable Drainage Systems ('SuDS') and the containment of firewater. Pollution control measures relevant to the operational phase of the Project are secured through the **Outline OMP (Doc Ref. 7.11)**.
- 10.4.8 The Project layout and design has been carefully developed to reflect the prevailing fluvial flood risk. This includes setting the location and height of key sensitive infrastructure so that flooding is not likely and siting PV panels above the projected height of flooding. Appropriate SuDS measures which account for future climate change will be also implemented. The Project would therefore not worsen flooding within the Site or off-Site. Emergency Flood Response Plans will however form part of the **Outline OMP (Doc Ref. 7.11)**.
- 10.4.9 To avoid potential effects from wastewater on designated sites, cess tanks at the Project Substation will be tankered off-site and disposed of in a catchment outwith the Stour catchment.
- 10.4.10 Effects on all water environment receptors during the operational phase are assessed Negligible.

Decommissioning

- 10.4.11 Potential effects in the decommissioning phase will be similar to the construction phase with regards to pollution. Similar practices undertaken during construction will be implemented during decommissioning through the **Outline DEMP (Doc Ref. 7.12)**.
- 10.4.12 No significant residual effects on water environment receptors are predicted during the decommissioning phase of the Project.

10.5 Cumulative Effects

- 10.5.1 The cumulative assessment identified only two developments (ID No. 9 East Stour Solar Farm and ID No. 10 Otterpool Development Park) which have the potential to give rise to cumulative effects in combination with the Project. However, these effects could only be realised if the construction periods for two or more of these schemes coincided. This potential cumulative effect would be in relation to waterborne pollution derived from construction activities discharging to the East River Stour.
- 10.5.2 Regular water quality monitoring is proposed through the construction phase to identify if adverse cumulative effects are occurring. If adverse changes in water quality are identified, the causes would be investigated in coordination with the other development projects. Where necessary, the causes would be addressed and, if appropriate, measures adapted to reduce effects.

11 Land Contamination

11.1 Introduction

11.1.1 **ES Volume 2: Chapter 11: Land Contamination (Doc Ref. 5.2)** presents an assessment of the potential significant effects of the Project in relation to land contamination. The assessment considers the potential ground and groundwater contamination effects on sensitive receptors during all stages of the Project.

11.2 Assessment Method

11.2.1 The assessment has been informed by desk-based environmental data covering the Site and surrounds, other published information and site walkovers. An investigation of ground conditions involving boreholes, excavated areas (trial pits), soil sampling, chemical analysis, ground gas and groundwater monitoring was also undertaken. The ground investigation focused primarily on the areas of potential contamination sources identified in the desk-based assessment, as well as to investigate the ground conditions beneath the Site.

11.2.2 The various information sources are used to determine if there are any likely sources of contamination at the Site, the potential pathways for identified contamination, and any receptors that could be significantly affected. The identified sensitive receptors have been grouped as human health receptors, controlled waters receptors, ecological receptors and built environment receptors.

11.3 Baseline Conditions

11.3.1 The desk-based study identified that the Site had been historically used as agricultural or pastoral land and this use continues. British Geological Survey ('BGS') maps indicate that the geology beneath the Site is a combination of one or more of the following geological layers:

- Artificial deposits (Made ground) potentially associated with the HS1/Network Rail railway line;
- Alluvium superficial deposits (Secondary A aquifer) associated with the East Stour River and described as '*clay, silt, sand and gravel*';
- Weald Clay formation described as '*mudstones with subordinate siltstones*';
- Atherfield Clay Formation described as '*sandy mudstones*'; and
- Hythe Formation described as '*fine to medium-grained...sandstones*'.

11.3.2 The ground investigation works encountered some made ground (i.e. artificial deposits) in the areas which were targeted for investigation of up to 0.8m below ground level ('bgl') with underlying superficial deposits comprising sand gravel, and

clay up to 5mbgl in depth. Bedrock geology was encountered in one borehole (partially weathered limestone at 1.5m bgl).

- 11.3.3 A number of oil samples were subject to chemical analysis for certain potential contaminants. The results were subsequently assessed against relevant criteria to determine if the soils are suitable for use as part of the Project. The assessment concludes that there is a Very Low to Low risk of contaminated land and no significant constraints with regards to contamination of soil and groundwater that would limit the development of the Site for the Project.

11.4 Assessment of Effects

- 11.4.1 An **Outline CEMP (Doc Ref. 7.8)**, **Outline OMP (Doc Ref. 7.11)** and **Outline DEMP (Doc Ref. 7.12)** have been developed for the Project following discussions with relevant stakeholders and provides details of the required mitigation measures throughout all stages to suitably protect sensitive receptors from potentially contaminative activities.

Construction Phase

- 11.4.2 Assessment of the potential effects arising from the construction phase of the Project was based upon the findings of the desk based study and instructive ground investigation. The assessment considered the following:

- Human health receptors coming into contact with contaminated soils, waters and/or dust, spillages/leaks from plant and machinery; and inhalation of ground gas;
- Controlled water receptors affected by contaminated ground water / surface water run-off, spillages/leaks from plant and machinery; and
- Ecosystem receptors affected by contaminated surface water run-off, spillages/leaks from plant and machinery.

- 11.4.3 Well established good practice industry standards in construction for managing contaminated and preventing pollution is included within the **Outline CEMP (Doc Ref. 7.8)**. Given that the risks of contaminated land are assessed as Very Low to Low, the significance of effects during the construction phase are assessed as Minor Adverse (construction workers); Negligible (adjacent site users), Minor Adverse (principal groundwater aquifer and East Stour River), Negligible (other controlled water receptors); and Negligible (ecosystem receptors). All effects are assessed as not significant.

Operational Phase

- 11.4.4 The potential effects arising from the operational phase of the Project considered in the assessment are similar to those for construction but also include built environment receptors that may be affected by the accumulation of ground gases within Project structures that may pose an explosive risk or affect below ground structures.

- 11.4.5 Mitigation measures and standard good practice for pollution prevention and personal protective measures will be in place as part of **Outline OMP (Doc Ref. 7.11)**. Measures included in the **Outline OSWDS (Doc Ref. 7.14)** will minimise the potential for the contaminants from leakages or spills.
- 11.4.6 Effects during the operational phase are assessed as Negligible (human health receptors), Minor Adverse (principal groundwater aquifer and East Stour River), Negligible (other controlled water receptors, built environment and ecosystem receptors). All effects are assessed as not significant.

Decommissioning Phase

- 11.4.7 The inclusion within the **Outline DEMP (Doc Ref. 7.12)** of pollution prevention measures, a watching brief and the requirement for all works to be undertaken in line with best practice and guidance during the decommissioning phase will reduce the likelihood of impacts on the human health, controlled waters and ecosystem receptors during the Project's decommissioning phase.
- 11.4.8 Therefore, the significance of effects during the decommissioning phase are considered to be Negligible to human health receptors; Minor Adverse to principal groundwater aquifer and East Stour River and Negligible to other controlled water receptors and ecosystem receptors. All effects are assessed as not significant.

11.5 Cumulative Effects

- 11.5.1 The potential for cumulative effects with other schemes within 250m of the Site were considered. These cumulative schemes would have adequate planning conditions and/or control documentation in place that address the requirement for pollution prevention and control during their respective construction, operation and decommissioning phases. As such, no cumulative effects are identified.

12 Socio-Economics

12.1 Introduction

12.1.1 **ES Volume 2: Chapter 12: Socio-Economics (Doc Ref. 5.2)** presents an assessment of the potential significant effects of the Project on local people, community and recreational facilities, businesses and the economy, PRow and access.

12.2 Assessment Method

12.2.1 The assessment considered the scale of employment supported by the Project and compares it to the scale of the labour market and economy from which it is likely to draw its workforce. It also considered the land use and employment currently supported by the arable (agricultural) farmland at the Site and how it will change compared to the wider agricultural economy.

12.2.2 In addition, the assessment considered how community and recreational facilities and access routes such as PRow will experience change. It draws on the findings of other chapters of the ES that contribute to how people experience the environment. The assessment also considers how PRow would be diverted in terms of their distance to assess how this may affect their use.

12.3 Baseline Conditions

12.3.1 The Site is mainly arable (agricultural use), set between small rural settlements with local community facilities and businesses. It benefits from a dense network of PRow that are often set apart from the highway and offer access between settlements like Aldington as well as short, recreational walking routes.

12.4 Assessment of Effects

12.4.1 A series of outline management plans accompany the DCO Application which include measures to minimise construction phase effects in relation to PRow, Community and Recreational Facilities and Tourism and Amenity and Human Health. These include the **Outline CEMP (Doc Ref. 7.8)**, **Outline RoWAS (Doc Ref. 7.15)** and **Outline LEMP (Doc Ref. 7.10)**.

12.4.2 The **Outline RoWAS (Doc Ref. 7.15)** sets out design parameters for the PRow network affected by the Project which includes extinguishing and diverting some PRow and creating new PRow. It also includes commitments relating to on-going engagement, monitoring, management and maintenance of these routes during the construction, operation and decommissioning phases of the Project.

Construction Phase

- 12.4.3 During the construction phase, the Project will support short term employment in the form of construction jobs. The Project will also have indirect effects through the local spending of construction workers and the potential for local businesses to supply the Project. While potentially positive, the UK's construction workforce is mobile, and the construction phase relatively short, so these effects are assessed as Negligible to Minor Beneficial (not significant).
- 12.4.4 Construction activity at the Site, such as vehicle movements and works to prepare and install the Project, may lead to environmental effects on people, homes and health; how people experience the local area; and how community and recreational facilities are used. Given the measures that the Project has secured to manage these effects, this is not considered likely to result in any significant effects. Effects are assessed as Negligible to Minor Adverse (not significant).
- 12.4.5 Changes to the land within the Site will result in diversions to PRoW and a change in the use of land from arable farming. Measures will be put in place to ensure that existing PRoW (or equivalent alternatives) remain open to minimise disruption to the people who use them. Effects are assessed as Negligible to Minor Adverse (not significant).

Operational Phase

- 12.4.6 The Project will contribute to the UK's renewable energy output, supporting the transition towards a low carbon economy, and this is likely to be significant in the context of how much renewable energy is currently generated in Kent. This is assessed as a Minor to Moderate Beneficial (significant) effect.
- 12.4.7 Given that the Project will not support much operational employment, there is not likely to be a significant change in the number of jobs supported by the Site and the effect would be Negligible.
- 12.4.8 Changes to the land within the Site will result in changes to the PRoW network. Diversions – and in some cases new routes – have been designed to allow people to continue to access the Site and continue through it for recreation or to reach community facilities, settlements and businesses. In many cases these will provide new facilities for active travel, recreation and links between communities and developments.
- 12.4.9 The **Outline RoWAS (Doc Ref. 7.15)** will ensure that diverted or new routes will be in place prior to the closure of existing ones, will be designed to high standards, and will be maintained throughout the operational phase to make them accessible, safe and attractive. Effects on some PRoW users are all assessed as not significant: either Negligible, Negligible to Minor Adverse (not significant), or Minor Beneficial where new routes or improved connectivity is provided.

12.4.10 The operational phase of the Project would not result in combined environmental effects that would give rise to significant adverse effects on tourist, recreational or community facilities in and around the Site, or the amenity of local homes and facilities.

Decommissioning Phase

12.4.11 Effects related to the decommissioning phase of the Project would be similar to the construction phase and not likely to be significant, being managed by similar measures that will reduce the likelihood of environmental change affecting community facilities, homes or residents' amenity.

12.5 Cumulative Effects

12.5.1 No significant cumulative effects are assessed with other schemes due to the relatively low level of employment supported, and the relatively low level of change in land use compared to the regional construction and agricultural economy.

12.5.2 The Project would provide new access routes that would support wider connections between Ashford and Otterpool on attractive and safe, well-maintained paths.

13 Traffic and Access

13.1 Introduction

- 13.1.1 **ES Volume 2: Chapter 13: Traffic and Access (Doc Ref. 5.2)** presents an assessment of the potential significant effects of the construction stage of the Project associated with traffic and access receptors. A detailed assessment of the operational phase has been scoped out of the ES due to the low number of trips associated with operation and maintenance. Effects during the decommissioning phase would be the same or lower than the construction phase and were also scoped out of assessment.

13.2 Assessment Method

- 13.2.1 The assessment of the effects of the construction phase of the Project has been undertaken in line with industry standard guidance.
- 13.2.2 Baseline conditions are informed by site visits, mapping, published data and traffic surveys undertaken in 2022 and 2023. Surveys of PRow use were also undertaken in the summer of 2022.
- 13.2.3 The number of construction traffic trips including workers, Light Goods Vehicles ('LGV's), Heavy Goods Vehicles ('HGV's) and abnormal loads are forecast using worst case assumptions for average and peak periods of construction. The effects of these trips are then compared to forecast traffic conditions for 2026 which include traffic from other schemes. These forecasts include planning (development) and demographic (population change) based growth.

13.3 Baseline Conditions

- 13.3.1 The A20 Hythe Road, north of the Site, is a single carriageway road which largely runs parallel to the M20 motorway connecting Hythe to Ashford and Maidstone to the north-west of the Site. The closest M20 motorway junction to the Site is Junction 10a. The M20 connects the ports of Folkestone and Dover to the South East. The A20 Hythe Road and Station Road junction (which will provide access to the Site) is a priority-controlled crossroads.
- 13.3.2 The local roads of Station Road / Goldwell Lane are adjacent to the Site and will provide access to the Project. These roads are relatively rural in nature, lightly trafficked but used by HGVs and agricultural vehicles, though the proportion of HGVs is low. Based on a review of accident data in the study area, none of roads to be used by the Project are considered to be accident black spots.
- 13.3.3 An extensive PRow network exists within and in close proximity to the Site which are all footpaths with one being a Byway Open to All Traffic. Surveys indicate the

local PRow network has limited use, particularly across the south western and north eastern parts of the Site, with more activity, albeit limited, in the central and south-eastern parts.

- 13.3.4 A limited number of sensitive receptors are identified. These include a bus route, listed buildings, holiday accommodation, a roadside café, a business park, a conference centre, a PRow shared with construction accesses and The Caldecott School, a special educational needs school. All sensitive receptors except for the school have low to medium sensitivity, with the school having high sensitivity. Several of the local roads without footways could potentially have high sensitivity.

13.4 Assessment of Effects

- 13.4.1 Embedded mitigation measures to manage and mitigate construction phase traffic and access effects are secured through the DCO, primarily through the **Outline CTMP (Doc Ref. 7.9)** and **Outline CEMP (Doc Ref. 7.8)**. These include measures relating to construction vehicle routing, vehicular access, the internal haulage road, safety management, condition surveys and public engagement.

- 13.4.2 The Primary Site Access will utilise an existing priority-controlled junction already used by large agricultural vehicles off Station Road south of the HS1/Channel Tunnel Rail Link bridge. The Project includes the following measures to minimise traffic and access effects:

- Use of an existing access on Station Road as the Primary Site Access with an appropriate level of visibility for recorded speeds;
- Restricting construction vehicle routes to avoid use of more sensitive local roads by construction traffic, particularly Roman Road and Aldington village centre. Traffic will exit the M20 motorway, A20 Hythe Road and enter the Site via an existing access on Station Road;
- Use of an off-road internal haulage road between the Primary Construction Compounds and most of the Site to minimise the use of local roads and bypass two tight bends on Station Road; and
- Traffic and safety management measures at points where the internal haulage road crosses local roads and the use of escort vehicles where required on Goldwell Lane.

Construction

- 13.4.3 The peak worker trip generation is predicted to result in a total of 163 two-way daily trips, which is equivalent to an average of up to 15 two-way trips per hour (rounded to 16 as an even number of 'in' and 'out' trips). The construction phase is therefore predicted to generate up to 16 two-way (return) trips per hour during the peak periods of construction. Around 4 trips per hour are likely to be HGVs with the remainder being cars, LGVs and a mini-bus used to transport workers to/from the Site.

- 13.4.4 Only two abnormal loads (due to their weight) are forecast to be required which would use only a short section of Station Road.
- 13.4.5 The **Outline CTMP (Doc Ref. 7.9)** will also secure measures to help to minimise the impact of construction traffic by employing other best-practice measures which will include restrictions to working hours and vehicle routing; the scheduling of deliveries; implementation of traffic management at haulage road crossing points and cable laying sites; use of escort vehicles to help HGV based deliveries navigate the bend on Goldwell Lane; use of escort vehicles on sections of PRoW that will be used by construction traffic; use of temporary barrier fencing; and minimise mud on roads.
- 13.4.6 The increase of traffic trips arising from the construction phase on the local highway network, excluding the A20 Hythe Road, compared to the 2026 Baseline ranges from an average of 4.7% to a maximum of 8.9% with the increase on the A20 Hythe Road being 1.4-1.6%.
- 13.4.7 The assessment shows that the effects on all sensitive receptors would be temporary Negligible or Minor Adverse (not significant). Minor Adverse effects are assessed relation to short term, temporary road vehicle and passenger delay due to construction vehicles during the 12-month period. Effects on severance of communities, non-motorised user delay and amenity, fear and intimidation on and by road users, road user and pedestrian safety and large/abnormal loads are all assessed as Negligible (not significant), save for The Caldecott School which are Minor Adverse (not significant).

13.5 Cumulative Effects

- 13.5.1 The Project's construction traffic with traffic associated with the construction or operational phases of other local committed developments has been assessed. As a worst case, it is assumed that the committed schemes would all overlap with the construction phase of the Project, though this is unlikely given the various timescales involved.
- 13.5.2 The conclusions of the cumulative assessment of the Project on A20 Hythe Road/Station Road/Goldwell Lane related to: severance of communities; road vehicle driver delay and passenger delay; non-motorised user delay and amenity; fear and intimidation on and by road users; road user and pedestrian safety; and dangerous/hazardous and large/abnormal loads remain unchanged with cumulative schemes. The cumulative effects are assessed as temporary Negligible (not significant) effect save for road vehicle driver delay and passenger delay which is Minor Adverse (not significant).

14 Noise

14.1 Introduction

14.1.1 **ES Volume 2: Chapter 14: Noise (Doc Ref. 5.2)** presents an assessment of the potential significant effects of the construction, operation and decommissioning phases of the Project.

14.2 Assessment Method

14.2.1 To establish the baseline conditions and inform the assessment, a noise survey was undertaken at eight locations around the Site. The noise survey locations were agreed with ABC.

14.2.2 Construction and decommissioning phase noise effects are assessed through predictions of traffic flows and on-Site activities in line with industry guidance. The noise level at which an impact is deemed to have occurred and the threshold of significant adverse effect are based on the baseline sound levels before the Project is constructed.

14.2.3 Operational noise levels are predicted at surrounding noise sensitive receptors using 3D computer noise modelling based on the **Illustrative Project Drawings (Doc Ref. 2.6)**. Predicted noise levels are assessed by comparing them to baseline background noise levels. The greater predicted noise is over the background sound, the more likely a significant adverse effect will occur.

14.3 Baseline Conditions

14.3.1 A baseline sound survey was undertaken in May 2022 to measure the noise levels at locations which are representative of the nearby sensitive receptors.

14.3.2 The existing noise environment is influenced by local road traffic, rail traffic, aircraft, domestic noise, noise from a nearby school and natural sounds (i.e. birdsong and a breeze). As is typical for rural areas, night-time background noise levels are low and daytime levels are dominated by local traffic flows.

14.3.3 To determine the likely significant noise effects of the Project, receptors sensitive to noise were identified. 45 noise sensitive receptors ('NSR') are identified within 300m of the boundary of the Site which included residential properties, a hotel, and a school. As well as these NSRs, the baseline noise level experienced by the users of PRow which cross the Site may change because of the Project as they move along their chosen route. These were also included in the assessment. All sensitive residential receptors are assessed as medium sensitivity. Other receptors, such as PRow users are considered to be low sensitivity.

14.4 Assessment of Effects

14.4.1 Construction noise levels will be controlled through Embedded Mitigation and measures contained in the **Outline CEMP (Doc Ref. 7.8)**. The Project incorporates measures such as distancing of noise sources away from sensitive receptors and locating the Project Substation away from large concentrations of receptors and close to the existing noise sources of the railway and M20 motorway. Noise barriers in the form of fencing are also proposed at the Project Substation and Inverter Stations.

Construction Phase

14.4.2 The effects of construction traffic noise from traffic flows have been shown to be Negligible (not significant) at all receptors.

14.4.3 The effect of on-Site construction noise is a function of proximity to the development area. Predicted impacts on NSRs are assessed for the construction works as temporary, short term Negligible to Minor Adverse (not significant) effects. Construction effects on users of PRow which cross the Site are assessed as Negligible (not significant).

14.4.4 In small areas, closest to identified receptors, construction works will be required to use low noise techniques and undertake noise monitoring. These measures are secured through the **Outline CEMP (Doc Ref. 7.8)**.

Operational Phase

14.4.5 Noise emissions of plant and equipment associated with the Project, including the Inverter Stations, BESS Units, Intermediate Substations and the Project Substation are predicted at the nearest human receptors within 300m of the Site boundary. The impact of operational noise from this plant and equipment has been modelled with noise barriers in place as these will be secured through the DCO to avoid adverse effects. As such, the effects on all noise sensitive receptors are assessed as Negligible to Minor Adverse (not significant).

14.4.6 During periods of hot weather, when the cooling systems are required to operate to ensure appropriate conditions for the electricity generating equipment, localised high impacts are possible. However, the rare occurrence of such conditions above a temperature of 35°C would ensure that the overall effect of operational noise is Negligible to Minor Adverse (not significant).

Decommissioning Phase

14.4.7 The decommissioning phase will be similar to the construction phase and the significance of the noise effects will be the same (i.e. Negligible (not significant) for traffic noise and Negligible to Minor Adverse (not significant) for on-site works).

14.5 Cumulative Effects

- 14.5.1 Predicted construction traffic from the Project are assessed together with traffic from other schemes and the cumulative effects will remain Negligible (not significant).
- 14.5.2 Two noise sensitive receptors have been identified as receptors for other development projects which are identified as cumulative schemes. However with embedded mitigation measures the combined construction, operation and decommissioning phase impacts at these receptors are assessed as Negligible at Noise Sensitive Receptor ('NSR' 40) and Minor Adverse at NSR 34 (not significant).

15 Climate Change

15.1 Introduction

- 15.1.1 **ES Volume 2, Chapter 15: Climate Change (Doc Ref. 5.2)** provides an assessment of the Project's impact on the climate to meet the requirements of the EIA regulations. The assessment is presented in two parts: Part A assesses the likely significant effects of the Project on climate change through an assessment of the Projects' lifecycle Greenhouse Gas ('GHG') footprint. Part B assesses the resilience of the Project to future changes in climate projected to occur as a result of climate change.
- 15.1.2 Potential effects associated with the combined impacts of the Project and climate change on environmental receptors are considered in the supporting documents that accompany the DCO Application, such as the **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4)** and **Outline OSWDS (Doc Ref. 7.14)**.

15.2 Part A: Lifecycle Greenhouse Gas Assessment

Assessment Method

- 15.2.1 As climate change is a global environmental effect, the geographic area for the assessment was not limited by any geographical scope. The assessment considered the whole lifecycle GHG emissions of the Project from construction through the decommissioning phase, over a 40 year operational period. The assessment was undertaken in line with industry standard guidance.
- 15.2.2 Activities that contribute to GHG emissions were identified and included in the assessment from the construction, operational and decommissioning phases of the Project. These activities include: transport, embodied carbon in materials, on-Site machinery, energy generated by the Project and exported to the electricity grid, and the transport and disposal of waste materials.

Baseline Conditions

- 15.2.3 As the Site is not previously developed land, there are no significant activities that result in GHG emissions. The assessment therefore assumes that baseline GHG emissions from the existing Site are zero.

Assessment of Effects

- 15.2.4 The assessment establishes the context of GHG emissions by comparing the net change in the GHG emissions resulting from the Project over its lifetime with local and national GHG emissions and budgets for carbon. The significance of effects are established based on industry standard guidance and taking in to account the consistency of the Project with policies designed to limit GHG emissions and meet

the UK's net zero target, and the embedded mitigation proposed to avoid, reduce and compensate for the Project's GHG emissions.

- 15.2.5 The assessment concludes that the effects of the Project on Climate Change are **Beneficial (significant)**. The Project's construction emissions are a very small component of national carbon budgets, and when considering the whole life GHG emissions, the Project will result in a net reduction in GHG emissions through provision of renewable electricity, reducing demand for fossil fuel use. The Project is also fully consistent with existing and emerging policy requirements, and has adopted mitigation measures to minimise GHG emissions during construction, operation and decommissioning.

Cumulative Effects

- 15.2.6 In line with industry guidance, an assessment of GHG emissions associated with cumulative developments was not undertaken, as the cumulative GHG effects are considered to be the same as those for the completed Project.

15.3 Part B: Climate Change Resilience Assessment

Assessment Method

- 15.3.1 An assessment of climate change resilience has been undertaken which considers the resilience of the Project to future changes in the climate. The assessment considers the risks of changes in the climate to the Project through a climate risk assessment.
- 15.3.2 The study area/geographical scope for the resilience assessment is the Order limits, split into various receptors. The assessment uses published climate projections for the 2070's.
- 15.3.3 The construction phase was scoped out of this assessment as the focus of the assessment is the future when it is anticipated that changes from the existing climate may have occurred and these may pose risks to the operation and decommissioning of the Project.
- 15.3.4 The assessment establishes climate risks on potential receptors, and considers the significance of that risk through an assessment of the likelihood and consequence, taking in to account embedded mitigation. Receptors on Site identified are renewable energy infrastructure, Site access, and landscape and biodiversity.

Baseline Conditions

- 15.3.5 The assessment was informed by regional scale information on historic and projected changes in the climate and other studies undertaken relevant to the Project.

- 15.3.6 The assessment identifies the current baseline for extreme rainfall and flood risk, storms and drought, and extreme temperatures. It also sets out the future baseline for weather in the Order limits based on climate projections.

Assessment of Effects

- 15.3.7 The assessment found that there are no significant effects on the Project due to future climate change.

Cumulative Effects

- 15.3.8 The assessment found that cumulative effects with respect to climate resilience are not significant.
- 15.3.9 Effects associated with higher summer temperatures and more extreme temperature events could be exacerbated by cumulative developments if they result in a large increase in hard surfaces in the vicinity of the Project. However, the Project is not in an urbanised region and embedded mitigation has been included to minimise potential effects created by the Project.

16 Other Topics

16.1 Introduction

16.1.1 **ES Volume 2, Chapter 16: Other Topics (Doc Ref. 5.2)** assesses glint and glare; minerals; waste; major accidents and disasters; telecommunications, television reception and utilities. It also provides information required by the Scoping Opinion in relation to the following environmental topics which were scoped out:

- **Soils and Agriculture** - A Soils and Agricultural Land Report has been undertaken and is provided as **ES Volume 4, Appendix 16.1: Soils and Agricultural Land Report (Doc Ref. 5.4)**. This was informed by a desk-based study using published data sources and soil survey undertaken in 2021 and 2023 which found that approximately 20% (38.64ha) of the agricultural land within the Site is classes as Best and Most Versatile ('BMV'). It is anticipated that the retained landscape and habitat mitigation would lead to a permanent loss of 11.43ha of agricultural land, of which 5.58ha is BMV. This represents a loss of 14.4% of the BMV within the Site and 0.017% of the BMV within ABC. The Applicant has sought to avoid the use of BMV land where possible and measures will be in place to manage soil during construction and decommissioning.
- **Air Quality and Dust** – The Project would not generate levels of traffic which would have a significant adverse effect on air quality. Mitigation measures will be in place in the **Outline CEMP (Doc Ref. 7.8)** and **Outline DEMP (Doc Ref. 7.12)** to minimise dust.
- **Vibration** – Vibration impacts during operation are not anticipated due to the nature of the Project. Appropriate measures will also be secured through the **Outline CEMP (Doc Ref. 7.8)** and **Outline DEMP (Doc Ref. 7.12)** to avoid significant adverse vibration effects during construction and decommissioning.
- **Electric, Magnetic and Electromagnetic Fields** - The Project will avoid potential effects from the generation, transmission and distribution of electricity through standard design measures and as the maximum voltage of the Project Substation and Grid Connection Cable will be 132 kV.
- **Lighting** - During the construction and decommissioning phases temporary lighting will be required. During the operational phase, no part of the Project will be continuously lit (with the exception of the Sellindge Substation Extension), with lighting limited to emergency and overnight maintenance lighting only at Inverter Stations, Intermediate Substations and the Project Substation. Measures to avoid or minimise lighting impacts are secured through the **Design Principles (Doc Ref. 7.5)**, **Outline CEMP (Doc Ref. 7.8)**, **Outline OMP (Doc Ref. 7.11)** and **Outline DEMP (Doc Ref. 7.12)**. No significant effects are identified.
- **Daylight, Sunlight and Overshadowing** - Impacts from daylight, sunlight

and overshadowing are scoped out as the scale and massing of the Project will not cause changes in relation to daylight, sunlight, or overshadowing.

Glint and Glare

- 16.1.2 Solar panels are specifically designed to absorb, not reflect, the sun's rays. However, solar panels may reflect the sun's rays at certain angles, causing glint and glare. A full assessment of glint and glare was undertaken and is provided as **ES Volume 4, Appendix 16.2: Solar Photovoltaic Glint and Glare Study (Doc Ref. 5.4)**. 'Glint' is defined as a momentary flash of bright light typically received by moving receptors or from moving reflectors, and 'glare' is defined as a continuous source of bright light typically received by non-moving receptors or from large reflective surfaces. The effect occurs when the solar panel is stationed between or at an angle of the sun and the receptor.
- 16.1.3 The glint and glare assessment considers the impact of the Project on a range of receptors including aviation, road users, dwellings, railway and PRoW users. No significant residual effects were identified. Embedded mitigation measures that will be implemented to reduce impacts include hedgerows to be grown, infilled, gapped up and maintained to appropriate heights (as secured through the **Outline LEMP (Doc Ref. 7.10)**).
- 16.1.4 One dwelling was identified as having potential to experience a moderate impact, although with existing vegetation and additional mitigation taken into account this would be Negligible to Low (not significant).
- 16.1.5 No cumulative effects are identified with other proposed solar developments in the study area.

Minerals

- 16.1.6 **ES Volume 4, Appendix 16.3: Mineral Safeguarding Assessment (Doc Ref. 5.4)** includes a desktop review of the mineral resources and feedback from minerals operators in relation to the Project. Two Mineral Safeguarding Areas ('MSA')⁵ are present within the Site for sand and gravel and a limestone used primarily as building stone.
- 16.1.7 With the exception of elements of Work No. 4 that are within the Sellindge Substation, any repairs, upgrades or replacements of/to the existing bridge / agricultural drain crossings and highway improvements, the Project is of a temporary nature that will be removed during the decommissioning stage and the land returned to a condition that does not prevent mineral extraction at the Site in the future. The minor permanent works noted above will not result in any new areas of mineral sterilisation. The effect of the Project on mineral resources is therefore assessed to be Negligible (not significant).

⁵ Mineral Safeguarded Areas cover the known locations of specific mineral resources that are, or may in future, be of sufficient economic value to warrant protection for future generations.

Waste

- 16.1.8 **ES Volume 2, Chapter 16: Other Topics (Doc Ref. 5.2)** provides a description of the potential streams of construction, operation and decommissioning waste and estimated volumes / quantities. Detailed CEMP(s) and DEMP(s) will include measures to ensure waste will be managed on-site in line with the waste hierarchy (i.e. prevention; preparing for reuse; recycling; other recovery, including energy recovery; and disposal) and opportunities to recycle waste will be explored.
- 16.1.9 Given the nature of the Project, significant quantities of waste are not anticipated. Following the implementation of appropriate control measures, no significant effects are anticipated during the construction or decommissioning phases.
- 16.1.10 During the operational phase of the Project, the operator will follow the hierarchy of waste management as secured by the **Outline OMP (Doc Ref. 7.11)**.
- 16.1.11 All waste arisings will be commercial in nature and managed by appropriately permitted carriers and facilities in accordance with the relevant legislation and permits. The nature of the waste streams and predicted volumes are such that the Project is not anticipated to result in significant adverse effects on landfill capacity.

Telecommunications, Television Reception and Utilities

- 16.1.12 A desk-based study of utilities was undertaken to provide information on the presence / absence of utilities on and near the Site and identify what action may need to be taken, such as diversions or protective measures.
- 16.1.13 The Project is unlikely to interfere with telecommunications infrastructure and digital television signals, and therefore no effects are anticipated in the construction, operational and decommissioning phases. In any event, the DCO will include standard protective provisions for the protection of telecommunications operators, so measures will be in place for the protection of telecommunications infrastructure.
- 16.1.14 The risk of damage to utilities during construction and decommissioning (for example through excavation) will be avoided through measures that are secured by the **Outline CEMP (Doc Ref. 7.8)** and **Outline DEMP (Doc Ref. 7.12)**. No significant effects are predicted.
- 16.1.15 Potential effects on telecommunications, television reception and utilities (including surface water drainage, foul water drainage, portable water supply and electric supply) are assessed as not significant.

Major Accidents and/or Disasters

- 16.1.16 An assessment has been carried out of the potential for significant adverse effects of the Project on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the Project. 'Accidents' can be defined as an occurrence resulting from uncontrolled developments in the course of construction, operation and decommissioning (e.g.

major emission, fire or explosion). 'Disasters' are naturally occurring extreme weather events or ground related hazard events (e.g. subsidence, landslide, earthquake). Major events therefore includes both man-made and naturally occurring events.

- 16.1.17 An exercise was undertaken to identify possible major accidents or disasters that could be relevant to the Project. Major accidents or disasters with little relevance to the Project or the Site were not considered further.
- 16.1.18 The following risks and events were identified as relevant to the Project: flooding, climate change, fire, road accidents; accidents due to glint and glare; and plant disease. Consideration was also given to sites covered by the Control of Major Accident Hazard Regulations 2015 and to unexploded ordnance.
- 16.1.19 Embedded mitigation measures appropriate for the risk of the major accident or disaster have been incorporated into the **Works Plans (Doc Ref. 2.3)** and **Design Principles (Doc Ref. 7.5)** or will be implemented through management plans during each stage of the Project.
- 16.1.20 An **Outline BSMP (Doc Ref. 7.16)** has been produced for the Project. The **Draft Development Consent Order (Doc Ref. 3.1)** includes a Requirement that secures the submission to and approval by ABC of a BSMP before the commencement of the BESS.
- 16.1.21 With embedded mitigation, no significant risks or environmental effects were anticipated for any of the identified relevant risks. No significant cumulative effects are identified with other developments.

17 Cumulative Assessment

17.1 Introduction

- 17.1.1 **ES Volume 2, Chapter 17: Cumulative Assessment (Doc Ref. 5.2)** provides an assessment of potential effect interactions and provides a summary of cumulative effects which are assessed in **Chapters 7 to 16 (Doc Ref. 5.2)** of the ES.

Effect Interactions

- 17.1.2 An assessment has been carried out to assess the potential for 'effect' interactions based on the effects identified in the ES (i.e. after Embedded Mitigation). An effect interaction occurs when two or more different environmental effects from a development (e.g., dust, noise, traffic) act together to produce a different level of effect / impact experienced by a particular receptor. Only beneficial or adverse residual effects identified in the technical chapters classified as being minor, moderate or major could result in potential effect interactions.
- 17.1.3 Whilst some receptors would experience different effects, no significant effect interactions or additional mitigation was identified.

Cumulative Effects

- 17.1.4 An assessment was carried out to assess the potential for Inter-Project Effects. Inter-Project effects occur when impacts from other schemes that have been consented / are likely to be consented within the vicinity of the Site combine with the impacts of the Project. **ES Volume 4, Appendix 6.1: Cumulative Schemes (Doc Ref. 5.4)** provides a list of identified cumulative schemes. **ES Volume 2, Chapters 7 to 16 (Doc Ref. 5.2)** of the ES provide a high-level summary of the cumulative effects of the Project and the identified cumulative schemes. Significant cumulative effects were only identified for Landscape and Visual Impacts.

18 Summary of Significant Effects

18.1 Introduction

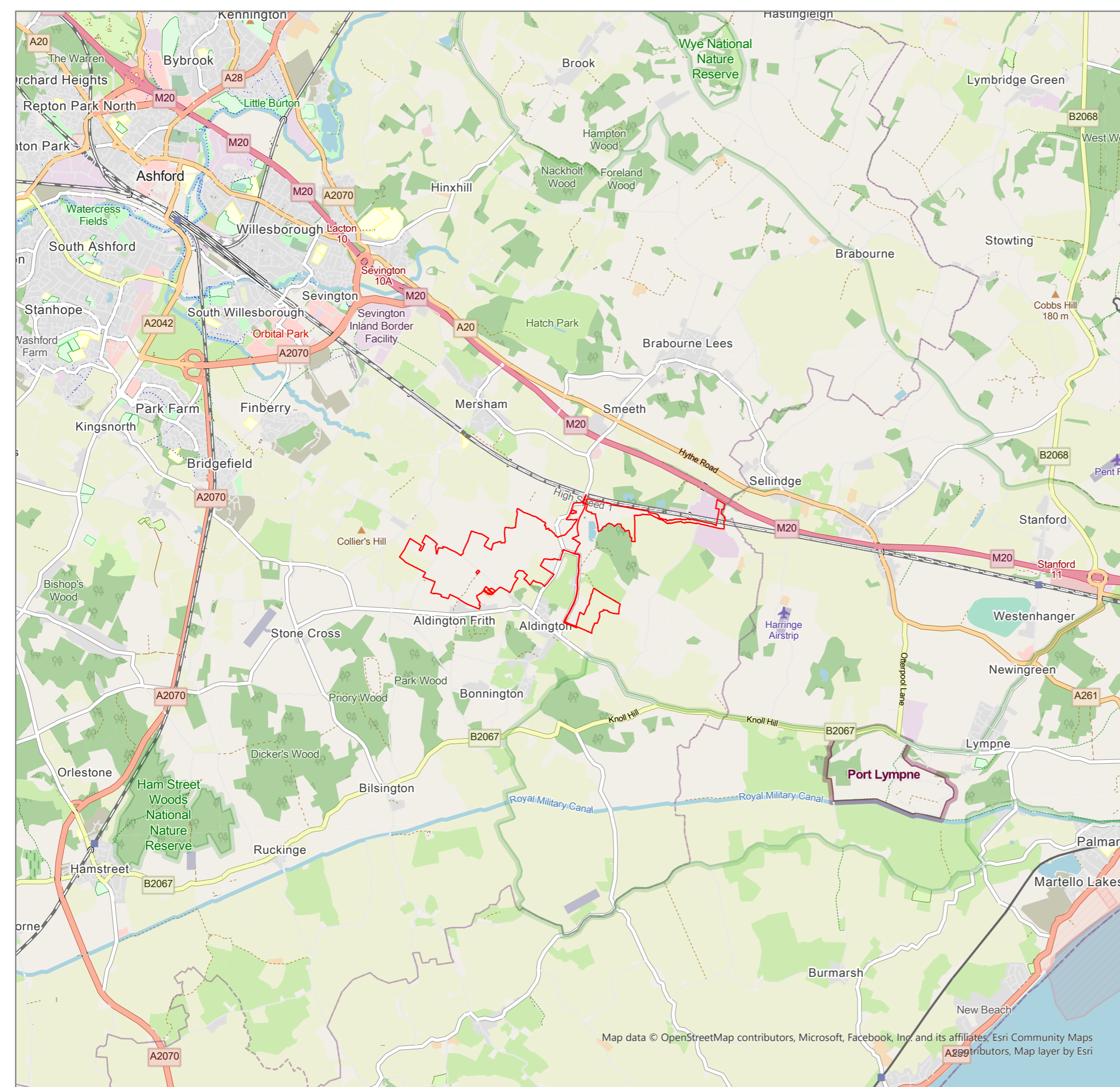
- 18.1.1 **ES Volume 2, Chapters 7 to 16 (Doc Ref. 5.2)** present the conclusions of the technical assessment and the residual significant effects anticipated as part of the Project.
- 18.1.2 The EIA for the Project has been undertaken in parallel with the design process. A number of measures have been implemented within the design of the Project to reduce adverse environmental effects and enhance effects such as landscape, biodiversity and socio-economics (PRoW network).
- 18.1.3 A **Mitigation Schedule (Doc Ref. 7.7)** has been produced and accompanies the DCO Application. The **Mitigation Schedule (Doc Ref. 7.7)** outlines the Embedded Mitigation that has been included as part of the Project.
- 18.1.4 The significant effects of the construction phase of the Project would be temporary and are assessed as:
- Visual Effects – Users of certain PRoWs (**Moderate Adverse**).
 - Biodiversity – Yellowhammer, skylark, brown hare (**Local Adverse**).
- 18.1.5 The significant effects of the operational phase of the Project are assessed as:
- Landscape Effects – Open Fields (**Moderate Adverse and Beneficial**); Hedgerow (**Moderate Beneficial**); Canopy Trees (**Moderate Beneficial**); Character of the Site (**Moderate Adverse and Beneficial**); LCA Aldington Ridge (**Moderate Adverse and Beneficial**).
 - Visual Effects - Users of PRoW within /adjacent proposed solar PV areas (**Moderate Adverse**); People travelling along Bank Road (**Moderate Adverse**), Users of PRoW AE401, Collier's Hill (**Moderate Adverse**); Users of PRoW AE428 – outside of the Site (**Moderate Adverse**).
 - Biodiversity – Backhouse Wood LWS and ancient woodland, notable habitats and plants, invertebrates great crested newt, common toad, reptiles, wintering bird and breeding bird assemblage, bats, hedgehog, harvest mouse, hazel dormouse, brown hare and otter (**Local Beneficial**).
 - Biodiversity – Skylark (**Local Adverse**).
 - Socio-economics – National renewable energy economy - Contribution to renewable energy generation (**Minor to Moderate Beneficial**).
 - Climate Change - Global Climate, effects of the Project on Climate Change (**Beneficial**).

18.1.6 The significant effects of the decommissioning phase of the Project are assessed as:

- Visual Effects - Users of PRow AE401, Collier's Hill (**Moderate Adverse**).

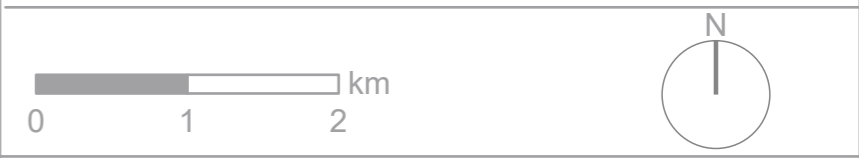
References

- ¹ HMSO, (2017). The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended). <https://www.legislation.gov.uk/ukSI/2017/572/contents/made> Accessed May 2024.




Legend
 — Order limits

Stonestreet Green Solar
Environmental Statement Volume 3,
Figure 1.1:
Site Location Plan



Date: May 2024	Scale: 1:50,000@ A3
Drawing Number: 5.3.01.01	Version: 01
APFP Regulation: 5 (2) (a)	



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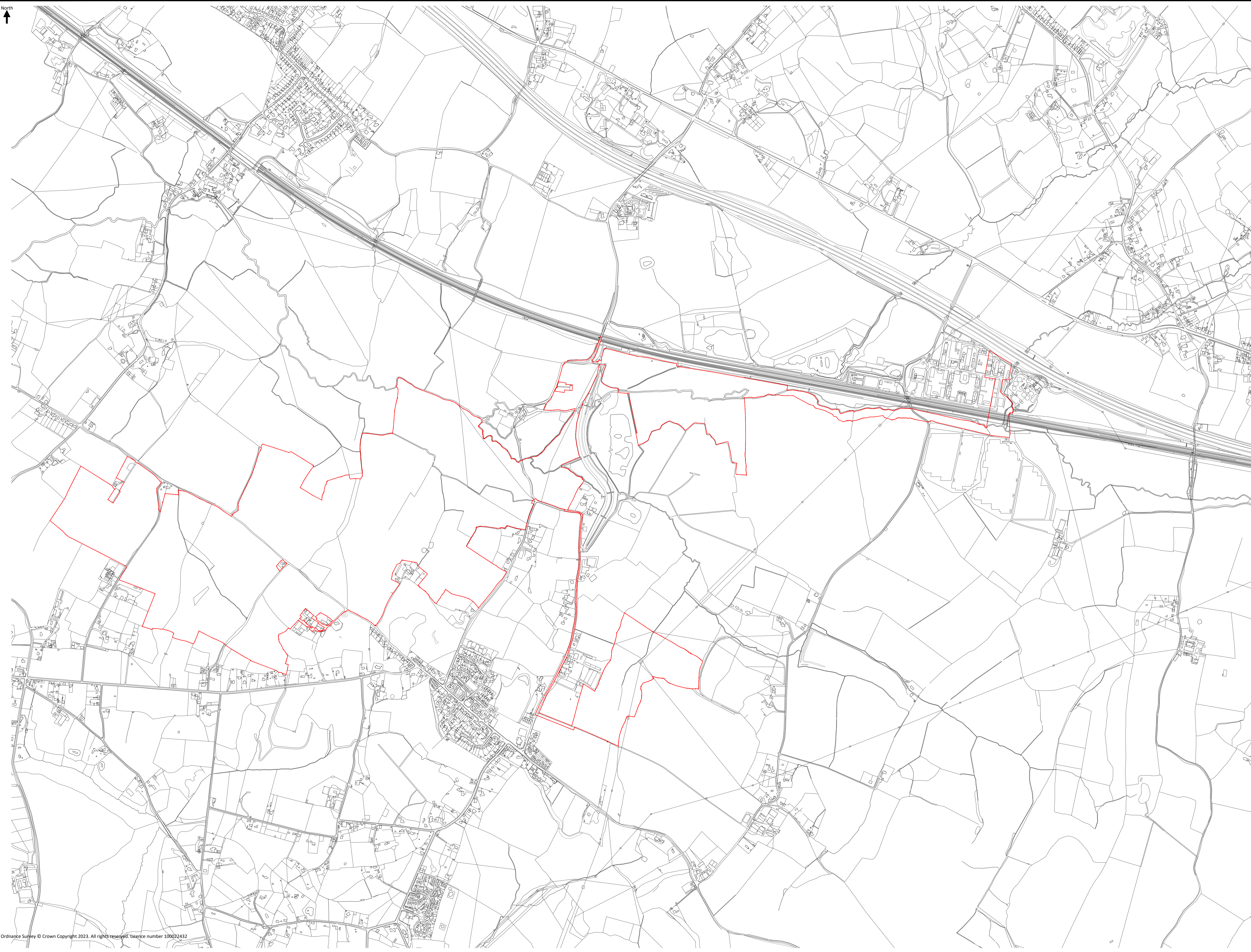


0m 100m 200m 300m 400m

Notes:

Postcode: TN25 7HP W3W: paints.embodied.warp

Key:
Order limits



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www.stonestreetgreensolar.co.uk
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Project Name:
Stonestreet Green Solar

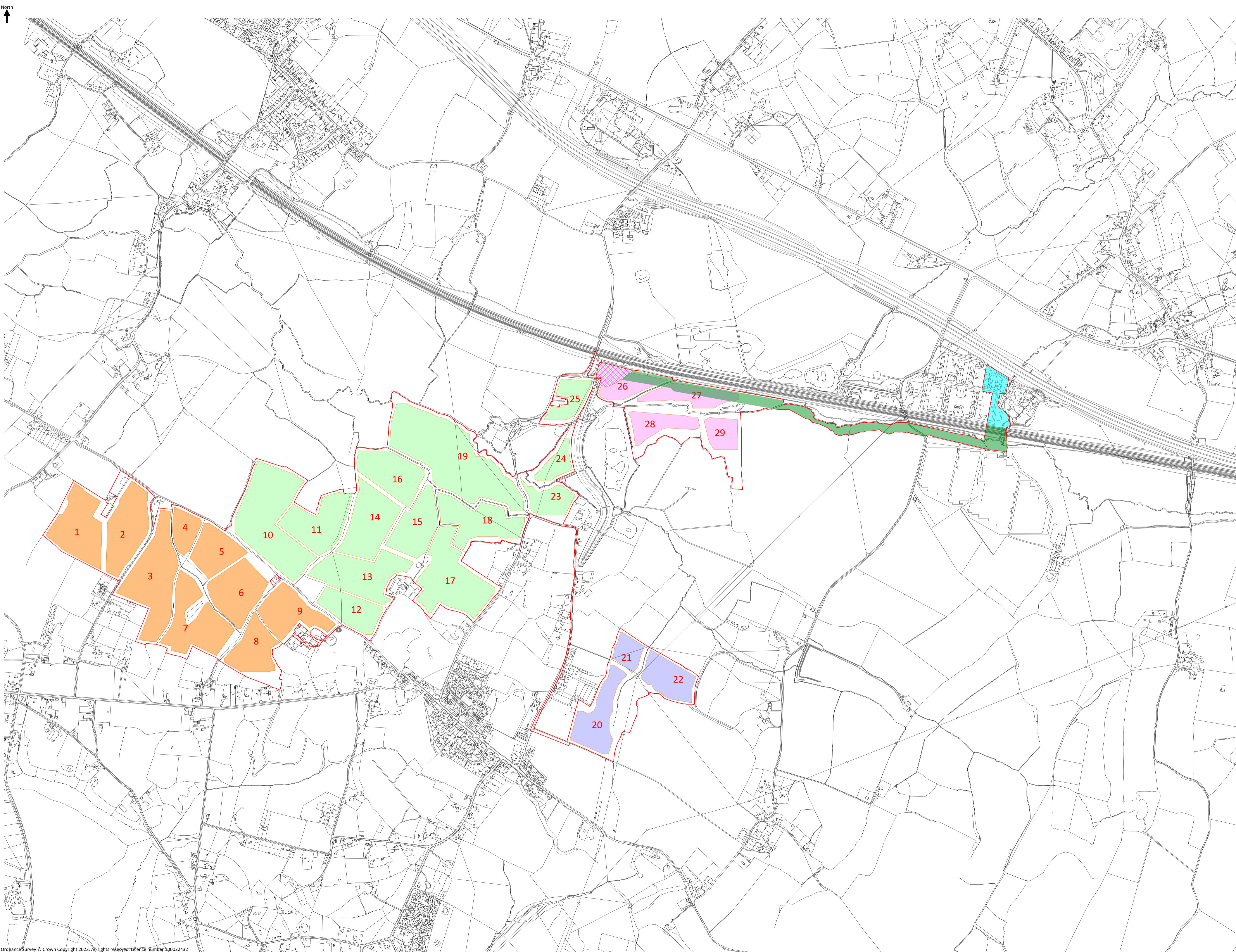
Drawing Title:
Environmental
Statement Figure 1.2:
Order Limits

Document Reference #:
142-01-01

Scale: 1:7,500@A1 APPF Reg. 5(2)(a)

Produced: RC Checked: Quod Date: May 2024 Version: 01

- Notes:
- Key:
- Order limits
 - Field Boundary
 - South Western Area (Fields 1 to 9)
 - Central Area (Fields 10 to 19 and 23 to 25)
 - South Eastern Area (Fields 20 to 22)
 - Northern Area (Fields 26 to 29)
 - Project Substation
 - Cable Route Corridor
 - Sellidge Substation



Project Name:
Stonestreet Green Solar

Drawing Title:
Environmental
Statement Figure 2.1:
Field Boundaries and
Site Area Plan

Drawing Number #:
142-01-02

Scale: 1:7500@A1 APPF Reg. 5(2)(a)

Produced: RC Checked: Quod Date: May 2024 Version: 01