Lime Down
Solar Park

Environmental Statement

Contents, Glossary and Abbreviations

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Glossary of Abbreviations

AC	Alternating Current
ACM	Asbestos Containing Materials
ACoW	Arboricultural Clerk of Works
AEGL	Acute Exposure Guidance Levels
AEP	Annual Exceedance Probability
AFFF	Aqueous Film Forming Foam
AGL	Above Ground Level
AIA	Arboricultural Impact Assessment
AIL	Abnormal Indivisible Load
AIS	Air Insulated Switchgear
ALC	Agricultural Land Classification
AMS	Archaeological Mitigation Strategy
AOD	Above Ordnance Datum
AQMA	Air Quality Management Area
ATI	Ancient Tree Inventory
BESS	Battery Energy Storage System
BMV	Best and Most Versatile
BPM	Best Practicable Means
BRE	Building Research Establishment
BSMP	Battery Safety Management Plan
CCC	Climate Change Committee
CCGT	Combined Cycle Gas Turbine
CCR	Climate Change Risk
CCS	Carbon Capture and Storage
CCTV	Closed-Circuit Television
CCUS	Carbon Capture Utilisation and Storage
CDM	Construction Design and Management
CEMP	Construction Environmental Management Plan

CEZ	Construction Exclusion Zone
CH_4	Methane
CNL	Cotswolds National Landscape
CNP	Critical National Priority
CO_2	Carbon Dioxide
CP2030	Clean Power 2030
CSM	Conceptual Site Model
CSP	Concentrated Solar Power
CTMP	Construction Transport Management Plan
dB	Decibel
DBA	Desk Based Assessment
DC	direct current
DCO	Development Consent Order
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DESNZ	Department of Energy Security and Net Zero
DMP	Dust Management Plan
DWP	Department for Work and Pensions
EA	Environment Agency
EC	European Commission
ECoW	Environmental Clerk of Works
EcoCoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EPMS	Ecological Protection and Mitigation Strategy
EPUK	Environmental Protection UK
ES	Environmental Statement
EWP	Energy White Paper
FCD	Field Capacity Days
FTE	Full Time Equivalent

GHG	Greenhouse Gas
GIS	Gas Insulated Switchgear
GIS	Geographic Information System
GOV	Government
GVA	Gross Value Added
GWP	Global Warming Potential
ha	hectares
HCA	Homes and Communities Agency
HDD	Horizontal Directional Drilling
HER	Historic Environment Record
HFCs	Hydroflourocarbons
HGV	Heavy Goods Vehicle
HM	His Majesty
HRA	Habitats Regulations Assessment
HV	High Voltage
HVAC	Heating, Ventilation, and Cooling
IDB	Internal Drainage Board
ICCI	In-Combination Climate Change Impact
IGP	Island Green Power
ISEP	Institute of Sustainability and Environmental Professionals
kgCO_2e	Kilograms of Carbon Dioxide Equivalent
km	kilometers
KV	Kilovolts
LDWA	Long Distance Walkers Association
LEMP	Landscape and Ecological Management Plan
LGV	Light Goods Vehicles
LVIA	Landscape and Visual Assessment
MHCLG	Ministry of Housing, Communities and Local Government
MtCO_2e	Megatonnes of Carbon Dioxide Equivalent

MW	Megawatt
NAP3	Third National Adaptation Programme (2023-2029)
NDC	Nationally Determined Contribution
NGR	National Grid Reference
N_2O	Nitrous Oxide
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NRMM	Non-Road Mobile Machinery
NSIP	Nationally Significant Infrastructure Project
NSR	Noise Sensitive Receptors
NTM	National Traffic Model
NTS	Non-Technical Summary
NVQ	National Vocational Qualification
NZS	Net Zero Strategy
OCEMP	Outline Construction Environment Management Plan
ODS	Outline Decommissioning Strategy
OEMP	Operational Environmental Management Plan
OSWMP	Outline Site Waste Management Plan
PEA	Preliminary Ecological Appraisal
PEIR	Preliminary Environmental Impact Report
PFAS	Per-and-Poly Fluoroalkyl Substances
PIC	Personal Injury Collisions
PPG	Planning Policy Guidance
PRoW	Public Rights of Way
PV	solar photovoltaic
PWS	Private Water Supply
RAMS	Risk Assessment Method Statements
RLB	Red Line Boundary
RPA	Root Protection Area
RPG	Registered Parks and Gardens

SMS	Strip, Map and Sample
SoS	Secretary of State
SPA	Swept Path Analysis
SRMP	Soil Resources Management Plan
SSSI	Site of Special Scientific Interest
SWMP	Site Waste Management Plan
TA	Transport Assessment
TCP	Tree Constraints Plan
TIP	Tree Impact Plan
TPF	Tree Protection Fencing
TPO	Tree Preservation Order
TPP	Tree Protection Plan
UK	United Kingdom
UKCP18	UK Climate Projections 2018
UNFCCC	United Nations Framework Convention on Climate Change
UXO	Unexploded Ordinance
VTA	Virtual Tree Assessment
WC	Wetness Class
WCS	Wiltshire Core Strategy
WSI	Written Scheme of Investigation
ZOI	Zone of Influence
ZTV	Zone of Theoretical Visibility

Definitions of Frequently Used Terms

132 kV Substations	132 kV Substations within the Solar PV Sites connect to the Conversion Units and 33 kV Sub-distribution Switch Rooms to increase the voltage generated by the Scheme from 33 kV to 132 kV.
33 kV Sub-distribution Switch Room	Located throughout the Solar PV Sites to collect the generated power and manage its delivery to the 132 kV and 400 kV Substations. For the purposes of assessment within the ES, these are assumed to be interchangeable with Conversion Units (refer to the definition below).
400 kV Substation	400 kV Substation located within Lime Down D (D22) to increase the voltage generated by the Scheme from 132 kV to 400kV.
Abnormal Indivisible Load (AIL)	An abnormal load that cannot be broken down into smaller loads for transport. An abnormal load is a vehicle which exceeds 44 tonnes in weight, the width is over 2.9 m or the length is more than 18.65 m.
Access Point	A location connecting a construction site required for the Scheme to the public highway.
Access Route	Public highway used by construction traffic to access a construction site required for the Scheme.
Additional Mitigation	Further mitigation measures over and above 'embedded' mitigation measures in order to reduce environmental effects. These are secured within the DCO.
Applicant	Lime Down Solar Park Limited
Arboricultural Clerk of Works	Responsible for undertaking site visits and providing advice throughout construction on how tree impacts will be avoided and minimised, including ensuring that the precautionary working methods described in this Outline Arboricultural Method Statement are adhered to during construction at the Solar PV Sites and installation of the cables in the Cable Route Corridor.
Archaeological Mitigation Strategy	An archaeological mitigation strategy sets out proposals to minimise the impact of a development on archaeological remains present within the site.
Associated Development	Development which is associated with a Nationally Significant Infrastructure Project, as defined in the Planning Act 2008 and associated guidance.
Avoidance Areas	Locations where trenchless technologies rather than open cut trenches will be used to avoid environmental

	receptors or engineering constraints within the Cable Route Corridor.
Baseline	The prevailing situation at the point of data collection (the current baseline), and also to the situation that would prevail in the future without the Scheme (the future baseline).
Baseline Conditions	The conditions against which potential effects arising from the Scheme are identified and evaluated.
Battery Energy Storage System (BESS)	Battery storage and Associated Development to allow for the storage, importation and exportation of energy to the National Grid.
Battery Safety Management Plan	The BSMP outlines the key fire safety provisions for the BESS proposed to be installed at Lime Down Solar Park (Lime Down D BESS) including measures to reduce BESS failure risks and mitigate credible failure incident scenarios. It provides a provides a summary of the safety related information requirements which will be provided in advance of construction of the BESS.
BESS Area	The area within which the BESS would be located for the storage, import, and export of energy to the National Grid. The Scheme would include a single BESS Area located within Lime Down D
BESS Container	Containers housing BESS batteries. The precise number of individual BESS Battery Containers is subject to further confirmation but is expected to be up to 270.
Cable Circuit	An electrical conductor necessary to transmit electricity between two points within the Scheme and may include one or more auxiliary cables for the purpose of gathering monitoring data, earthing cables, cables for auxiliary supply, optical fibre and other types of communication cables, cables connecting to direct current boxes.
Cable Route	The trench and working width for the cable circuits within the Cable Route Corridor. It will include cable circuits as well as the temporary haul road, laydown, topsoil storage and excavated material during construction. The cables that run within the cable route would connect to the substations within the Sites.
Cable Route Corridor	The area within which the Cable Route and Grid Connection Cables connecting the Solar PV Sites to the Existing National Grid Melksham Substation, and Interconnecting Cables between Solar PV Sites would be located

Cable Route Search Corridor	The wider search area used to identify the potential Cable Route Corridor within which the Cable Route Corridor is located.
Construction Environmental Management Plan	The CEMP is to be produced in accordance with the Outline CEMP, as a DCO Requirement, following the appointment of a contractor, prior to the start of construction. The CEMP and the requirement to comply with it will ensure that appropriate environmental management practices are followed during construction.
Construction Exclusion Zone	The area between the fencing and the trees will be a whereby no machinery, materials or spoil may enter.
Conversion Units	Units within the Solar PV Sites containing the inverters, transformers, and switchgear to increase the voltage generated by the Scheme to 33 kV. For the purposes of assessment within the ES, these are assumed to be interchangeable with 33 kV Sub-distribution Switch Rooms (refer to the definition above).
Cumulative Development	Development which may interact cumulatively with the Scheme.
Cumulative Effects	Effects upon the environment that result from the combined impact when added to other past, present or reasonably foreseeable future impacts.
Design Parameters	The Design Parameters define the envelope within which the Scheme will be developed. These comprise maximum and minimum descriptors of the Scheme components e.g. panel and substation heights.
Design Principles	The Design Principles provide a framework to guide the development of the design from conception to operation. They will be secured in the Development Consent Order and applied post consent during the detailed design stage.
Dust Management Plan	A Dust Management Plans (DMP) identifies potential sources of dust, assesses risks, and implements control measures to mitigate its potential dust impact.
Environmental Clerk of Works	Oversee the management of, and provide advice about, environmental and ecological risks during construction including for example, management of protected species, surface water management, pollution, air quality and noise.

Ecological Clerk of Works	Management of the risks to biodiversity on construction sites, advising protecting valued biodiversity features and providing practical solutions
Embedded Mitigation Measures	In-built design measures embedded in the Scheme as well as standard industry practice.
Environmental Effect	The consequence of an action (impact) upon the environment such as the decline of a breeding bird population as a result of the removal of hedgerows and trees.
Environmental Impact	The change to the environment from development such as the removal of a hedgerow.
Environmental Impact Assessment (EIA)	A process by which information about environmental effects of a proposed development is collected, assessed and used to inform decision making.
EIA Regulations	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.
Environmental Statement	A document produced in accordance with the EIA Regulations to report the results of an EIA. The Environmental Statement contains a description of the likely significant effects of the development on the environment.
Ecological Protection and Mitigation Strategy	The EPMS is to be produced in accordance with the Outline EPMS, as a DCO Requirement, following the appointment of a contractor, prior to the start of construction. The EMPS and the requirement to comply with it will ensure that ecological protection measures are followed during construction.
Existing National Grid Melksham Substation	The area within which the existing substation near Melksham (owned and operated by the National Grid) is located and the point of connection that the Grid Connection Cables would connect to the grid
Field	The fields within which the Solar PV Sites Lime Down A to Lime Down E are located. These are numbered in accordance with the Solar PV Site where they are located, e.g. Field A1 would be located in Lime Down A.
Future Baseline	These are the theoretical conditions that are anticipated in the absence of the Scheme. This is based upon extrapolating the current baseline using technical knowledge of likely changes over the identified period (for example anticipated habitat change over time,

	climate change projections, traffic and waste volume growth over time).
Grid Connection Cables	The export connection cables that would connect the 400 kV Substation to the National Grid at Melksham Substation.
Highway Improvement Areas	The areas within which improvements to sections of the existing highway network will be completed to facilitate access to the Scheme, such as improvements to road edge and traffic management.
Horizontal Directional Drilling (HDD)	Horizontal Directional Drilling is a method for installing cables without digging a trench. It involves drilling a pilot hole the progressively enlarging it to the required diameter.
Interconnecting Cables	Cables connecting the Conversion Units to 33 kV Sub-distribution Switch Rooms or 132 kV Substations, and on to the 400 kV Substation.
Inverter	Inverters convert the direct current (DC) electricity collected by the PV modules into alternative current (AC), which allows the electricity generated to be exported to the National Grid. BESS also use inverters to convert between DC and AC. The batteries function in DC and electricity must be converted to AC to pass into or from the grid.
Jointing Bay	Underground structures constructed at regular intervals along the cable route to join sections of cable and facilitate installation of the cables into the buried ducts. Located within the Cable Route Corridor.
Landscape and Ecological Management Plan	The LEMP is to be produced in accordance with the Outline LEMP, as a DCO Requirement, following the appointment of a contractor, prior to the start of construction. The LEMP and the requirement to comply with it will ensure that appropriate landscape and ecological management practices are followed during construction.
Lime Down A	One of the five Solar PV Site areas approximately centred on NGR ST 86308 84859.
Lime Down B	One of the five Solar PV Site areas approximately centred on NGR ST 88367 85110.
Lime Down C	One of the five Solar PV Site areas approximately centred on NGR ST 85958 83117.
Lime Down D	One of the five Solar PV Site areas approximately centred on NGR ST 89705 83565.
Lime Down E	One of the five Solar PV Site areas approximately centred on NGR ST 92788 82060.

Local Planning Authority	The public authority whose duty it is to carry out specific planning functions for a particular area.
Magnitude (of impact)	A term that combines judgements about the size and scale of the impact, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.
Maximum Parameters	These define the worst case extents of design elements of the Scheme, or factors arising from them.
Mitigation	Measures including any process, activity, or design to avoid, prevent, reduce, or, if possible, offset any identified significant adverse effects on the environment.
Nationally Significant Infrastructure Projects (NSIP)	NSIPs are large scale developments such as certain new harbours, power generating stations (including solar and wind farms), highways developments, and electricity transmission lines, which require a certain type of consent known as 'development consent' under the Planning Act 2008.
NPS (National Policy Statement)	National Policy Statements are produced by the UK government. They comprise the government's central policy documents for the development of Nationally Significant Infrastructure Projects.
On-Site Cables	Cables connecting the Solar PV Panels to the Conversion Units and 33 kV Sub-distribution Switch Rooms.
On-site substation	A compound containing electrical equipment to enable connection to the National Grid.
Operational Environmental Management Plan	The OEMP is to be produced in accordance with the Outline OEMP, as a DCO Requirement, prior to the start of operation. The OEMP and the requirement to comply with it will ensure that appropriate environmental management practices are followed during operation.
Order Limits	The maximum extent of land anticipated to be used for the construction, operation and maintenance, and decommissioning phases of the Scheme. This comprises the Solar PV Sites, Highway Improvement Areas, Cable Route Corridor, and the Existing National Grid Melksham Substation (also referred to as the 'Site').
Preliminary Environmental Information (PEI)	PEI is defined in the EIA Regulations as: "*information referred to in Regulation 14(2) which –* *(a) has been compiled by the applicant; and* *(b) is reasonably required for the consultation bodies to develop an informed view of the likely significant environmental effects of the*

	development (and of any associated development)."
Receptor	A component of the natural or man-made environment (including people) that is affected by an impact.
Scheme	The Lime Down Solar Park comprising the Solar PV Panels and Battery Energy Storage System and associated development for connection to the national transmission system via the Grid Connection Cables.
Scoping	The process of identifying the issues to be addressed by an EIA. It is a method of ensuring that an EIA focuses on the important issues.
Scoping Opinion	A Scoping Opinion is requested from the Planning Inspectorate on behalf of the Secretary of State, to inform the requirements of EIA process and ultimately the ES which will be submitted as part of the application for development consent. Through the scoping process the views of the statutory consultees and other relevant organisations on the proposed scope of the EIA are sought.
Site	The maximum extent of land anticipated to be used for the construction, operation and maintenance, and decommissioning phases of the Scheme. Comprises all areas required for the Scheme, including the Solar PV Sites, the Cable Route Corridor, and Highway Improvement Areas. Also referred to as the 'Order Limits'.
Site Waste Management Plan	The SWMP is to be produced in accordance with the Outline SWMP, as a DCO Requirement, following the appointment of a contractor, prior to the start of construction. The SWMP and the requirement to comply with it will ensure that appropriate waste management practices are followed during construction.
Solar PV Mounting Structures	The mounting structure to be used for the Solar PV Panels.
Solar PV Panels	The solar PV panels being installed within the Solar PV Sites.
Solar PV Sites	The areas within which the Solar PV Panels, associated infrastructure, landscaping, heritage, surface water and biodiversity mitigation areas. The Solar PV Sites comprise of five areas, including Lime Down A to E.
Solar PV Tables	Part of the Solar PV Mounting Structures to which the Solar PV Panels are attached. These may be either east-west single axis tracker Solar PV Mounting

	Structures Tables (Option A) or fixed south facing Solar PV Mounting Structures Tables (Option B).
Soil Resources Management Plan	The SRMP is to be produced in accordance with the Outline SRMP, as a DCO Requirement, following the appointment of a contractor, prior to the start of construction. The SRMP and the requirement to comply with it will ensure that appropriate soil management practices are followed during construction.
Study Area	The area in which a particular assessment or survey targets. The Study Area will vary depending on the nature of the technical assessment. Where relevant, these are defined within the relevant technical chapter of the PEIR.
Switchgear	A combination of electrical disconnect switches, fuses, or circuit breakers used to control, protect and isolate electrical equipment.
Temporary Construction Compounds	Any temporary area for storage of plant, materials, or equipment or for the use of welfare and site management.
Transformers	Transformers control the voltage of the electricity generated across the Site.
Written Scheme of Investigation	A Written Scheme of Investigation identifies known and potential archaeological features, deposits, or built heritage elements on a site, and proposes a structured approach for investigating them.
Zone of Influence	The area for the assessment of combined effects. Zones of Influence (ZOIs) are variable depending on the environmental factor being discussed.