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Environmental Statement

Volume 4: Interim Environmental Report (IER) Acronyms and Glossary

Document Reference

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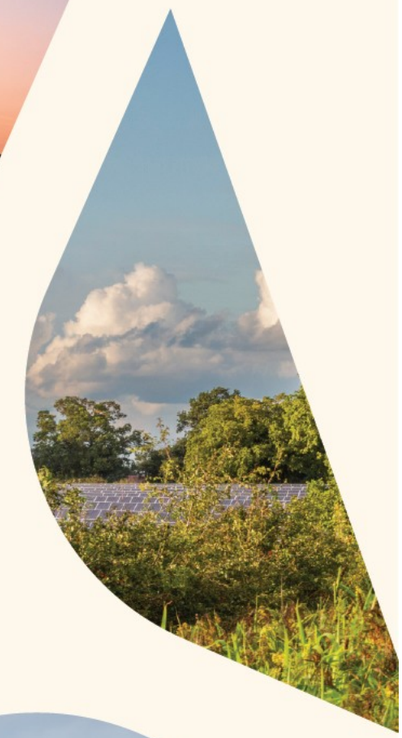

Acronyms

Acronym	Full name
ADZ	Alternative Development Zone
AADT	Annual Average Daily Traffic
AAR	average annual rainfall
AEP	Annual Exceedance Probability
AIL	Abnormal Indivisible Load
ALC	Agricultural Land Classification
ALGAO	Association of Local Government Archaeological Officers
ANC	Association of Noise Consultants
AoD	Above Ordnance Datum
AQAL	Air Quality Assessment Level
AQMA	Air Quality Management Area
AQS	Air Quality Strategy
ATC[1]	Air Traffic Control
ATC[1]	Automatic Traffic Count
ATCT	Air Traffic Control Tower
BESS	Battery Energy Storage System
BGS	British Geological Survey
BMV	Best and Most Versatile (agricultural land)
BNG	Biodiversity Net Gain
BNL	Basic Noise Level
BRP	Bat Roost Potential
BSMP	Battery Safety Management Plan
BSSS	British Society of Soil Science
CB6	Carbon Budget 6
CCGT	Combined Cycle Gas Turbine
CCR	Climate Change Risk
CDM	Construction (Design & Management) Regulations
CE	European Conformity
CEMP	Construction Environmental Management Plan
CEnv	Chartered Environmentalist

Acronym	Full name
CIRIA	Construction Industry Research and Information Association
CIfa	Chartered Institute for Archaeologists
CNP	Critical National Priority (EN-1)
CO_2	Carbon Dioxide
COMAH	Control of Major Accident Hazards Regulations
CR	Cable Route
CRC	Cable Route Corridor
CRTN	Calculation of Road Traffic Noise
cSAC	candidate Special Area of Conservation
CSM	Conceptual Site Model
CTMP	Construction Traffic Management Plan
DBA	Archaeological Desk-Based Assessment
DC	Direct Current
DCO	Development Consent Order
dDEMP	Detailed Decommissioning Environmental Management Plan
DECC	Department of Energy and Climate Change
DEMP	Decommissioning Environmental Management Plan
DF	Design Freeze
EA	Environment Agency
EIA	Environmental Impact Assessment
EMF	Electromagnetic Fields
EMR	Electromagnetic Radiation
EPA	Environmental Protection Act
EPMS	Ecological Protection and Mitigation Strategy
EPR	Environmental Permitting Regulations
EPUK	Environmental Protection UK
EQIA	Equality Impact Assessment
ERP	Emergency Response Plan
ES	Environmental Statement
FCD	Field Capacity Days

[1] There are two ATC acronyms used in the IER. The Air Traffic Control reference is only used in Chapter 14 Glint and glare, whilst the Automatic Traffic Counter is used in Chapter 12 Transport and access.

Acronym	Full name
FES	Future Energy Scenarios
FRA	Flood Risk Assessment
FRS	Fire and Rescue Service
FTE	Full Time Equivalent
GCN	Great Crested Newt
GHG	Greenhouse Gas
GLVIA3	Guidelines for Landscape and Visual Impact Assessment, Third Edition
GPP	Guidance for Pollution Prevention
GVA	Gross Value Added
GW / MW / kV	Gigawatt
GWDTE	Groundwater Dependent Terrestrial Ecosystems
HAZID	Hazard Identification Study
HAZOP	Hazard and Operability Study
HDD	Horizontal Directional Drilling
HER	Historic Environment Record
HGV	Heavy Goods Vehicle
HLC	Historic Landscape Characterisation
HRA	Habitats Regulations Assessment
HSA	Health Security Agency
HSC	Hazardous Substances Consent
HSE	Health and Safety Executive
HVAC	Heating, Ventilation and Air Conditioning
IAQM	Institute of Air Quality Management
ICCI	In-Combination Climate Change Impacts
ICE	Inventory of Carbon and Energy
ICNIRP	International Commission on Non-Ionising Radiation Protection
IDB	Internal Drainage Board
IEMA	Institute of Environmental Management and Assessment
IER	Interim Environmental Report
IGP	Island Green Power
INNS	Invasive Non-Native Species
IRZ	Impact Risk Zone
ISEP	Institute for Sustainability and Environmental Professionals (formerly IEMA)
kV	Kilovolt
LAD	Local Authority District

Acronym	Full name
LAQM	Local Air Quality Management
LCA	Landscape Character Assessment
LCRM	Land Contamination Risk Management
LDU	Landscape Description Unit
LEMP	Landscape and Ecological Management Plan
LERC	Local Ecological Record Centre
LGV	Light Goods Vehicle
LHA	Local Highway Authority
LITGN	Landscape Institute Technical Guidance Note
LLFA	Lead Local Flood Authority
LNR	Local Nature Reserve
LNRS	Local Nature Recovery Strategy
LOAEL	Lowest Observed Adverse Effect Level
LoGS	Local Geological Site
LPA / LPAs	Local Planning Authority / Authorities
LRN	Local Road Network
LSFT	Large Scale Fire Testing
LTC	Landscape Character Type
LULUC	Land Use, Land Use Change and Forestry
LVIA	Landscape and Visual Impact Assessment
LWS	Local Wildlife Site
MA&D	Major Accidents and Disasters
MC	moisture content
MCC	Manual Classified Count
MCCA	Multi-criteria cost analysis
MDP	Moisture Deficit for Potatoes
MDW	Moisture Deficit for Wheat
MoRPh	Modular River Physical Survey
MPA	Mineral Products Association
MSA	Mineral Safeguarding Area
MSOA	Middle Layer Super Output Area
MW	Megawatt
NCA	National Character Area
NCN	National Cycle Network
NESO	National Energy System Operator

Acronym	Full name
NETS	National Electricity Transmission System
NFCC	National Fire Chiefs Council
NFPA	National Fire Protection Association
NGR	National Grid Reference
NHLE	National Heritage List for England
NIA	Noise Important Area
NL	National Landscape
NNR	National Nature Reserve
NO_2	Nitrogen Dioxide
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NPS EN-1	Overarching NPS for Energy
NPS EN-3	NPS for Renewable Energy Infrastructure
NPS EN-5	NPS for Electricity Networks Infrastructure
NPSA	National Protective Security Agency
NPSE	Noise Policy Statement for England
NRMM	Non-Road Mobile Machinery
NSIP	Nationally Significant Infrastructure Project
NSR	Noise Sensitive Receptor
NTEM	National Trip End Model
NVZ	Nitrate Vulnerable Zone
oBSMP	Outline Battery Safety Management Plan
oCEMP	Outline Construction Environmental Management Plan
oCTMP	Outline Construction Traffic Management Plan
oDEMP	Outline Decommissioning Environmental Management Plan
OEMP	Operational Environmental Management Plan
oEPMS	Outline Ecological Protection and Mitigation Strategy
oLEMP	Outline Landscape and Ecological Management Plan
ONS	Office for National Statistics
oOEMP	Outline Operational Environmental Management Plan
oPRoWMP	Outline Public Rights of Way Management Plan
oSMP	Outline Soil Management Plan
PA2008	Planning Act 2008
PADSS	Principal Areas of Disagreement Summary Statement
PAS	Publicly Available Specification

Acronym	Full name
PCLs	potential contaminant linkages
PIC	Personal Injury Collision
PINS	Planning Inspectorate
PoC	Point of Connection
PPA	Planning Performance Agreement
PPE	Personal Protective Equipment
PPG	Planning Practice Guidance
PPV	Peak Particle Velocity
PRF	Potential Roost Feature
PRoW	Public Rights of Way
PRV	Protected Road Verge
pSAC	possible Special Area of Conservation
pSPA	potential Special Protection Area
PV	Photovoltaic
RAG	Red, Amber, Green (assessment notation)
RCP	Representative Concentration Pathway
ReBC	Redditch Borough Council
RICS	Royal Institution of Chartered Surveyors
RTDU-SAGR	River Terrace Deposits (Sand–Gravel)
SaaS	Software as a Service
SAC	Special Area of Conservation
SCI	Site of Community Importance
SFRA	Strategic Flood Risk Assessment
SINC	Site of Importance for Nature Conservation
SLA	Special Landscape Area
SLINC	Site of Local Importance for Nature Conservation
SMP	Soil Management Plan
SNCI	Site of Nature Conservation Interest
SoADC	Stratford-on-Avon District Council
SOAEL	Significant Observed Adverse Effect Level
SoCG	Statement of Common Ground
SPA	Special Protection Areas
SPD	Supplementary Planning Document
SPG	Supplementary Planning Guidance
SPZ	Source Protection Zone

Acronym	Full name
SRN	Strategic Road Network
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
TA	Transport Assessment
TEMPro	Trip End Model Presentation Program
UKCA	UK Conformity Assessed
UKCP	UK Climate Projections
UKHab	UK Habitat Classification
UL	Underwriters Laboratory
UPRN	Unique Property Reference Number
UXO	Unexploded Ordnance
WaBRC	Warwickshire Biological Records Centre
WaCC	Warwickshire County Council
WaHER	Warwickshire Historic Environment Record
WCH	Walking, Cycling and Horse-riding
WEEE	Waste Electrical and Electronic Equipment
WFD	Waste Framework Directive
WMAWP	West Midlands Aggregate Working Party
WMP	Waste Management Plan
WoBRC	Worcestershire Biological Records Centre
WoCC	Worcestershire County Council
WoHER	Worcestershire Historic Environment Record
WyDC	Wychavon District Council
ZTV	Zone of Theoretical Visibility

Glossary

Key Terms	Definitions
Abnormal Indivisible Load (AIL)	Large/heavy load exceeding standard limits (e.g., >44t, >2.9m width). Requires movement under STGO (Special Types General Order) provisions, including route planning, notifications and escort arrangements where required. .
Access Track	Internal track for HGV/AIL and maintenance vehicles; 3.5–6m wide depending on function.
Additional Mitigation	Measures required where embedded mitigation is insufficient.
Agricultural Land Classification (ALC)	Classification system for land quality (Grades 1–5); Grades 1–3a are Best and Most Versatile (BMV).
Agricultural Land Holding	A farm enterprise made up of one or more land parcels managed by a single person or business.
Agrivoltaics	Dual use land system combining PV generation with agricultural activity.
Air Quality Management Area (AQMA)	An area designated by a Local Authority where national air quality objectives are unlikely to be met. Once declared, the authority must prepare an Air Quality Action Plan to improve local air quality.
Annual Exceedance Probability (AEP)	The likelihood, expressed as a percentage, that a flood of a given magnitude will occur in any one year. A 1% AEP corresponds to a 1 in 100-year flood event.
Ancient Woodland	Woodland continuously present since at least AD 1600; irreplaceable habitat.
Archaeological Desk Based Assessment (DBA)	Review of heritage/archaeological records to inform baseline and potential impacts.
Archaeological Potential	Likelihood that unknown archaeological remains may exist.
Arden National Character Area (NCA 97)	Landscape region characterised by wood pasture, hedgerows and farmland.
Average Annual Rainfall (AAR)	Climatic moisture indicator used in soil/wetness/ALC assessments.
Baseline Conditions	Environmental conditions prior to development.
Battery Energy Storage System (BESS)	A system comprised of battery units, inverters, transformers and associated control equipment that stores electricity for later use and supports grid balancing.

Key Terms	Definitions
Best and Most Versatile (BMV) Land	ALC Grades 1, 2, and 3a — highest quality agricultural land.
Best Practicable Means (BPM)	A requirement to adopt the most effective methods to prevent or minimise environmental impact, considering technological, practical, and economic constraints.
Bifacial Monocrystalline Panels	Solar PV modules generating electricity from both front and rear surfaces.
British Geological Survey (BGS)	The UK's national provider of geological data, mapping and monitoring.
Brooks / Open Rivers	Minor watercourses across the Site (e.g., Ban Brook, Piddle Brook, Gate Inn Brook).
Cable Route Corridor (CRC)	The cable route and its corridor connecting PV areas to the Point of Connection.
Climate Change Committee (CCC)	The independent statutory body advising the UK Government on emissions reduction and progress to net zero.
Climate Vulnerability Assessment (CVA)	Assessment of Scheme sensitivity to future climate hazards.
CO_2 Equivalent (CO_2e)	Standard unit expressing the global warming potential of greenhouse gases relative to CO_2.
Combined / In-Combination Effects (CEA)	Effects arising when multiple impact pathways act together on a receptor.
Construction Environmental Management Plan (CEMP)	Measures to manage and minimise construction phase environmental impacts.
Construction Traffic Management Plan (CTMP)	Routing, logistics, safety and delivery management for construction traffic.
Conversion Unit (Integrated or Disaggregated)	Electrical equipment converting DC from panels to AC for grid export.
Cotswolds National Landscape (CNL)	Nationally designated landscape; intervisibility assessed within LVIA.
Cumulative Effects	Combined effects from the Scheme plus other Reasonably Foreseeable Future Projects (RFFPs).
Cumulative Effects Assessment (CEA)	Assessment of intra-scheme and inter-project cumulative effects.
Dark Skies	Low-light areas mapped by CPRE indicating nighttime sensitivity.

Key Terms	Definitions
Design Envelope (Rochdale Envelope)	Approach allowing assessment of a range of design parameters to maintain flexibility.
Designated Heritage Asset	Legally protected heritage features (Listed Buildings, Conservation Areas, Scheduled Monuments).
Development Consent Order (DCO)	Consent required under the Planning Act 2008 for NSIPs.
Direct Current (DC)	Electricity generated by PV panels before conversion to AC.
Driver Delay	Changes in travel time caused by altered traffic flows.
Ecological Network	Linked habitats supporting species dispersal and resilience.
Ecosystem Services	Benefits provided by soil, water, habitats, ecosystems.
EIA Regulations 2017	Infrastructure Planning (Environmental Impact Assessment) Regulations 2017
Electromagnetic Fields (EMF)	Low-frequency electric and magnetic fields from electrical infrastructure, required to comply with ICNIRP guidelines.
Emergency Response Plan (ERP)	Plan describing actions for on-site emergencies (fire, chemical spill, extreme weather).
Environment Act 2021	Legislation including mandatory Biodiversity Net Gain (BNG).
Environmental Impact Assessment (EIA)	Statutory process for evaluating likely significant environmental effects.
Environmental Improvement Plan 2023 (EIP 2023)	National environmental strategy referenced in EN-1.
Environmental Management Plan (EMP)	Umbrella term for CEMP, OEMP, DEMP, LEMP.
Environmental Statement (ES)	The document submitted with the DCO application that provides the environmental information requested in the Environmental Impact Assessment Scoping Opinion.
ESDAL	National abnormal load notification system.
Feckenham 400 kV National Grid Substation	400 kV National Grid substation ~8 km from the nearest Site parcel.
Field Capacity Days (FCD)	Days soil remains at field capacity; used in ALC.
Fixed Solar Panels	PV panels mounted at a fixed south-facing tilt.
Flood Zone (1–3)	National classification of tidal/fluvial flood probability.
Footpath / Public Right of Way (PRoW)	Pedestrian/equestrian route protected by law.
Geometric Modelling (Glint & Glare)	Modelling to determine reflection angles, duration and intensity.

Key Terms	Definitions
Glare / Glint	Solar reflections — glare = sustained; glint = brief.
Grid Connection Cables	HV underground cables linking Sites to the NETS.
Hazard Score (Traffic)	Composite score assessing NMU fear/intimidation (ISEP).
Heavy Goods Vehicle (HGV)	Large commercial vehicle for materials delivery.
Heritage Setting	Environment in which a heritage asset is experienced.
Historic Landfill	Former waste disposal site with contamination risk.
Horizontal Directional Drilling (HDD)	Trenchless cable installation method used beneath obstacles.
In-Combination Effects	Interactions of multiple environmental effects within the Scheme.
Integrated Conversion Unit (ICU)	Containerised housing for conversion equipment.
Likely Significant Effects	Effects assessed as Moderate or Major.
Light Goods Vehicle (LGV)	Small vans/pickups used for construction/maintenance.
Local Planning Authorities (LPAs)	Host and neighbouring planning authorities.
Made Ground	Ground which has been placed (to build up levels or infill an excavation) or reworked and is not a naturally occurring strata.
Magnitude of Impact	Size, scale and extent of an environmental impact.
Mitigation Hierarchy	Avoid → Reduce → Remedy/Restore → Compensate → Enhance.
Mounting Structure	Steel or concrete framework supporting PV panels.
National Character Area (NCA)	Landscape character areas defined by Natural England.
National Electricity Transmission System (NETS)	National grid system to which the Scheme connects.
National Energy System Operator (NESO)	Publisher of Future Energy Scenarios (FES).
National Planning Policy Framework (NPPF)	National planning policy. Not the principal policy of relevance to Nationally Significant Infrastructure Projects, but still a material consideration.
National Policy Statements (NPS)	These are the principal planning policies relating to Nationally Significant Infrastructure Projects. Relevant NPS for the Scheme are EN-1, EN-3, EN-5.
Nationally Significant Infrastructure Project (NSIP)	Status of the Scheme under PA2008.
Nitrate Vulnerable Zone (NVZ)	Land designated for nitrate pollution control.

Key Terms	Definitions
Option Land	Land under consideration or subject to option agreements.
Order Limits	The final DCO application boundary.
Peak Particle Velocity (PPV)	Measurement of ground vibration.
Permissive Path	Non-statutory access route created as enhancement.
Photomontage	Verified LVIA visual showing proposed development.
Piling	A type of foundation where metal posts are driven into the ground.
Planning Act 2008	Legislative framework for NSIPs.
Planning Performance Agreement (PPA)	Agreement for resourcing/engagement with LPAs.
Point of Connection (PoC)	The agreed grid connection point.
Principal Areas of Disagreement Summary Statement (PADSS)	Summary of disagreements for Examination.
Pyranometer	Instrument measuring solar irradiance.
Reasonably Foreseeable Future Projects (RFFPs)	Developments considered in cumulative assessment.
Relay / Control / Switch Rooms	Substation buildings for protection/control systems.
Residual Effects	Effects remaining after mitigation is applied.
Rochdale Envelope	Approach enabling assessment of parameterised designs.
Scoping Report	Scoping Opinion Request.
Secretary of State (SoS)	DCO decision maker.
Separation Distance (Rows)	Minimum 2.5 m spacing between PV panel rows.
Severance (Transport)	Reduction in ease of movement or community connectivity.
Single Axis Tracking Panels	PV modules rotating east–west on a north–south axis.
Solar Photovoltaic (PV) Array	Assemblies of solar panels producing DC.
Statement of Common Ground (SoCG)	Document recording agreements with stakeholders.
Study Area	Defined assessment area per ES topic.
Substation (132kV / 400kV)	Electrical compounds stepping voltage up/down for export.
Swale	Vegetated drainage channel.
the Act	Planning Act 2008.
the Applicant	Arrow Valley Solar Limited
the Planning Inspectorate (PINS)	Body administering NSIP applications.

Key Terms	Definitions
the Scheme	Arrow Valley Solar and Battery Energy Storage System (BESS).
the Site	Land parcels comprising the Scheme.
Tilt Angle (Panels)	Vertical angle of solar modules.
Traffic Flow Thresholds (ISEP)	<30% negligible; 30–60% small; 60–90% medium; >90% large.
Trenchless Techniques	Cable installation avoiding open trenching (e.g., HDD).
Underground Ducting	Protective conduit for HV cables.
Visual Amenity	Quality of views experienced by receptors.
Visibility Splays	Sightlines needed for safe road access.
Wetness Class (WC I–VI)	Soil wetness classification.
Working Width (Cable Installation)	Typical 25–35 m corridor required for cable works.
Zone of Influence (ZoI)	Area where effects may be experienced.
Area of Site and sub-Sites (ha)	
Total Area of Order Limits	1,357 ha
sub-Site 1(a)	5.8121
sub-Site 1(b)	46.4294
sub-Site 1(c)	147.6652
sub-Site 1(d)	22.0453
sub-Site 1(e)	148.1095
sub-Site 1(f)	24.5004
sub-Site 2(a)	108.4995
sub-Site 2(b)	20.3985
sub-Site 2(c)	24.1650
sub-Site 2(d)	123.7645
sub-Site 2(e)	32.4783
sub-Site 3(a)	13.1601
sub-Site 3(b)	48.3233
sub-Site 3(c)	50.6450
sub-Site 3(d)	97.8851
sub-Site 3(e)	17.0104
sub-Site 3(f)	13.5848
sub-Site 3(g)	42.1558
Site 4	37.4303
Cable Route (CB) Length (m)	

Key Terms	Definitions
CR1	7916.1
CR2	1359.5
CR3	3028.7
CR4	371.5, 314.2
CR5	2691.5

Arrow Valley Solar