

Tillbridge Solar

PEI Report Volume I Contents, Glossary and Frequently Used Terms April 2023

tillbridgesolar.com

Table of Contents

Chapter 1	Introduction
Chapter 2	Scheme Location
Chapter 3	Scheme Description
Chapter 4	Alternatives and Design Evolution
Chapter 5	EIA Methodology
Chapter 6	Air Quality
Chapter 7	Climate Change
Chapter 8	Cultural Heritage
Chapter 9	Ecology and Nature Conservation
Chapter 10	Flood Risk, Drainage and Surface Water
Chapter 11	Human Health
Chapter 12	Landscape and Visual Amenity
Chapter 13	Noise and Vibration
Chapter 14	Socio-Economics and Land Use
Chapter 15	Transport and Access
Chapter 16	Other Environmental Topics
Chapter 17	Cumulative Effects
Chapter 18	Summary of Significant Effects

Glossary of Abbreviations

AADT Annual Average Daily Traffic

AC Alternate Current

AEP Annual Exceedance Probability

agl Above ground level

AGLV Area of Great Landscape Value

AlL Abnormal Indivisible Load

ALC Agricultural Land Classification

AOD Above Ordnance Datum

AONB Areas of Outstanding Natural Beauty

AQAL Air Quality Assessment Level

AQMA Air Quality Management Area

AQS Air Quality Strategy

ATC Automatic Traffic Count

AW Ancient Woodland

BAP Biodiversity Action Plan

BCT Bat Conservation Trust

BDC Bassetlaw District Council

BDLDF Bassetlaw District Local Development Framework

BESS Battery Energy Storage System

BGS British Geological Survey

BMV Best and Most Versatile

BNG Biodiversity Net Gain

BOAT Byways Open to All Traffic

BOD Biochemical Oxygen Demand

BPM Best Practicable Means

BRE Building Research Establishment

BRES Business Register and Employment Survey

BS British Standards

CAFE Clean Air for Europe

CAMS Catchment Abstraction Management Strategy

CCC Climate Change Committee

CCGs Clinical Commissioning Groups

CCR Climate Change Resilience

CCTV Closed Circuit Television

CCW Countryside Council for Wales

CDM Construction Design Management

CEMP Construction Environmental Management Plan

CH4 Methane

CIEEM Chartered Institute of Ecology and Environmental Management

CifA Chartered Institute for Archaeologists

CIPD Chartered Institute of Personnel and Development

CJEU Court of Justice of the European Union

CLJSPC Central Lincolnshire Joint Strategic Planning Committee

CM Conceptual Model

CO₂ Carbon dioxide

COPA Control of Pollution Act 1974

COSHH Control of Substances Hazardous to Health

CSM Conceptual Site Model

CTMP Construction Traffic Management Plan

CWS County Wildlife Sites

DBA Desk-Based Assessment

DBEIS Department for Business, Energy & Industrial Strategy

DC Direct Current

DCLG Department for Communities and Local Government

DCO Development Consent Order

DECC Department of Energy and Climate Change

Defra Department for Environment, Food and Rural Affrairs

DEMP Decommissioning Environmental Management Plan

DfT Department for Transport

DMP Dust Management Plan

DMRB Design Manual for Roads and Bridges

DoS Degree of Saturation

DPD Development Plan Documents

DRA Dust Risk Assessment

EA Environment Agency

EC European Commission

EcIA Ecological Impact Assessment

eDNA Environmental DNA

EIA Environmental Impact Assessment

EMI Electromagnetic Interference

EN Energy

EPA Environmental Protection Act

EPD Environmental Product Declaration

EPUK Environmental Protection UK

EQS Environmental Quality Standards

ERP Emergency Response Plan

ES Environmental Statement

EU European Union

FCEMP Framework Construction Environment Management Plan

FCTMP Framework Construction Transport Management Plan

FRA Flood Risk Assessment

FTE Full Time Employment

FZ Flood Zone

GCR Ground Coverage Ratio

GHG Greenhouse Gas

GLVIA3 Guidelines for Landscape and Visual Impact Assessment Third Edition

GPP Guidance for Pollution Prevention

GRP Glass Reinforced Plastic

GVA Gross Value Added

GWDTE Groundwater Dependent Terrestrial Ecosystem

Ha Hectare

HaPI Habitats of Principal Importance

HCA Homes and Communities Agency

HDD Horizontal Directional Drilling

HDV Heavy Duty Vehicle

HE Historic England

HER Historic Environment Record

HFCs Hydrofluorocarbons

HGV Heavy Goods Vehicle

HIA Heritage Impact Assessment

HIS Habitat Suitability Index

HLC Historic Landscape Character

HRA Habitats Regulation Assessment

HSI Habitat Suitability Index

HVAC Heating, Ventilation and Cooling

HV High Voltage

IAQM Institute of Air Quality Management

IAS Invasive Alien Species

ICCI In-combination climate change impact

ICE Inventory of Carbon and Energy

IDB Internal Drainage Board

IEF Important Ecological Features

IEMA Institute of Environmental Management and Assessment

IHBC Institute of Historic Building Conservation

IMD Index of Multiple Deprivation

INNS Invasive Non-Native Species

IPCC Intergovernmental Panel on Climate Change

ISO International Organization for Standardization

JNCC Joint Nature Conservation Committee

JSNAs Joint Strategic Needs Assessment

kg CO2e/kWh Kilograms carbon dioxide equivalent per kilowatt hour

Km Kilometre

LBAP Local Biodiversity Action Plan

LBMP Landscape and Biodiversity Management Plan

LCA Landscape Character Area

LCC Lincolnshire County Council

LCP Landscape Character Parcel

LCT Landscape Character Type

LDU Landscape Description Unit

LEP Local Enterprise Partnership

LERC Lincolnshire Environmental Records Centre

LGV Light Goods Vehicle

LHA Local Highway Authority

LiDAR Light detection and ranging

LLCA Local Landscape Character Area

LLFA Lead Local Flood Authority

LNR Local Nature Reserves

LOAEL Lowest Observable Adverse Effect Level

LRN Local Road Network

LSEs Likely Significant Effects

LSOA Lower Super Output Area

LTP Local Transport Plan

LV Low Voltage

LVIA Landscape and Visual Impact Assessment

LWS Local Wildlife Sites

m Metre

M3 Meters cubed

MAGIC Multi-Agency Geographic Information Centre

MCC Manually Classified Count

MHCLG Ministry of Housing, Community and Local Government

MRN Major Road Network

MSOA Middle Super Output Area

MV Medium Voltage

MW Megawatts

MWh Megawatt hours

MWp Megawatt Peak

NBGRC Nottinghamshire Biological and Geological Records Centre

NBN National Biodiversity Network

NCA National Character Area

NCC Nottinghamshire County Council

NE Natural England

NERC Natural Environment Research Council

NF₃ Nitrogen trifluoride

NGR National Grid Reference

NHLE National Heritage List for England

NMU Non-Motorised Users

NNR National Nature Reserves

NO2 Nitrogen Dioxide

NOx Nitrogen oxides

NOEL No Observed Effect Level

NPPF National Planning Policy Framework

NPPG National Planning Practice Guidance

NPS National Policy Statement

NPSE National Policy Statement for England

NRMM Non-Road Mobile Machinery

NRTF National Road Traffic Forecast

NSIP Nationally Significant Infrastructure Project

NTEM National Trip Ends Model

NTL National Tidal Limit

NTM National Transport Model

NVQ National Vocational Qualification

NVZ Nitrate Vulnerable Zone

N2O Nitrous oxide

ODEMP Outline Decommissioning Environmental Management Plan

OEMP Operational Environmental Management Plan

OEP Office for Environmental Protection

ONS Office for National Statistics

OOEMP Outline Operational Environmental Management Plan

OS Ordnance Survey

PEA Preliminary Ecological Appraisal

PEI Preliminary Environmental Information

PFCs Perfluorocarbons

PFRA Preliminary Flood Risk Assessment

PIC Personal Injury Collision

PINS Planning Inspectorate

PM10 Particulate Matter with a diameter of 10 micrometres or less

PM_{2.5} Particulate Matter with a diameter of 2.5 micrometres or less

PPE Personal protective equipment

PPG Pollution Prevention Guidance

PPG Planning Practice Guidance

PRA Preliminary Risk Assessment

PRoW Public Rights of Way

PSYM Predictive System for Multimetrics

PV Photovoltaic

PWS Private Water Supply

RAF Royal Air Force

RBD River Basin District

RBMPs River Basin Management Plans

RCA Regional Character Areas

RCPs Representative Concentration Pathways

RFC Ratio of Flow to Capacity

RLB Red Line Boundary

RVAA Residential Visual Impact Assessment

SAC Special Areas of Conservation

SF6 Sulphur hexafluoride

SFRA Strategic Flood Risk Assessment

SM Scheduled Monument

SOAEL Significant Observed Adverse Effect Level

SOCC Statement of Community Consultation

SoS Secretary of State

SPA Special Protection Areas

SPI Species of Principal Importance

SPZ Source Protection Zone

SSSI Site of Special Scientific Interest

SuDS Sustainable Drainage Systems

SWMP Site Waste Management Plan

TA Transport Assessment

tCO2e tonnes CO2 equivalent

TEMPRO Trip Ends Model Program

TTM Temporary Traffic Management

TVL Trent Valley Landscape

TW Trent Washlands

UKBAP UK Biodiversity Action Plan

UKCP18 UK Climate Projections 2018

W Watts

WCA Wildlife and Countryside Act

WFD Water Framework Directive

WFD-UKTAG Water Framework Directive - United Kingdom Technical Advisory Group

Preliminary Environmental Information Report Volume I: Main Report

WHO World Health Organisation

WLDC West Lindsey District Council

WMP Water Management Plan

WRMP Water Resources Management Plan

WSI Written Scheme of Investigation

WTN Waste Transfer Note

WTT Well-to-tank

Zol Zone of Influence

ZTV Zone of Theoretical Visibility

μg Microgram

Definitions of Frequently Used Terms

Abnormal Indivisible Load

An abnormal load that cannot be broken down into smaller loads fortransport.

Abnormal Load

A vehicle that has a weight of more than 44,000kg, an axle load of more than 10,000kg for a single non-driving axle and 11,500kg for a single driving axle, a width of more than 2.9 metres or a rigid length of more than 18.65 metres.

Agricultural Land Classification (ALC)

The standardised method for classifying agricultural land in England and Wales according to its versatility, productivity and workability, based upon inter-related parameters including climate, relief, soil characteristics and drainage, i.e., ALC assesses land quality based upon the type and level of agricultural production the land can potentially support. These factors form the basis for classifying agricultural land into one of five grades (with Grade 3 land divided into Subgrades 3a and 3b), ranked from excellent (Grade 1) to very poor (Grade 5).

Air Quality Management Area (AQMA) Places where air quality objectives are not likely to be achieved. Where an AQMA is declared, the local authority is obliged to produce an Action Plan in pursuit of the achievement of the air quality objectives.

Application

The proposed application for a DCO to be submitted by the Applicant

APFP Regulations

The Infrastructure Planning (Application: Prescribed Forms and Procedure) Regulations 2009 (as amended).

Automatic Traffic Count

A traffic count which is undertaken automatically such as through the installation of a temporary or permanent electronic traffic recording device.

Baseline Conditions

The conditions against which potential effects arising from the Scheme are identified and evaluated.

Battery Energy Storage System (BESS) Batteries with associated infrastructure to store and export electricity to the national grid.

Best and most versatile (BMV) agricultural land

Best and most versatile (BMV) agricultural land of excellent (ALC Grade 1), very good (Grade 2) and good (Subgrade 3 a) agricultural quality.

Byways Open to All Traffic

A highway over which the public have a right of way for vehicular and all other kinds of traffic, but which is primarily used by the public for walking, cycling or horse riding. Cable Route Corridor Corridor which represents the land within which the cable route would be located.

CO2 equivalent (CO2e)

Carbon dioxide (CO2) equivalent is a measure of how much a gas contributes to global warming, relative to carbon dioxide, by multiplying the mass of the gas (in tonnes), by the gas' global warming potential (GWP).

Conservation Area

An area of special environmental or historic interest or importance, of which the character or appearance is protected (Section 69 of the Planning (Listed Buildings and Conservation Areas) Act 1990).

Construction Environmental Management Plan (CEMP) A site-specific plan developed to ensure that appropriate environmental management practices are followed during the construction phase of a project.

Consultation Report

A report forming part of the DCO application, outlining the statutory consultation undertaken on the Scheme.

Cumulative Effects

Effects upon the environment that result from the incremental impact of an action when added to other past, present or reasonably foreseeable actions. Each impact by itself may not be significant but can become a significant effect when combined with other impacts.

Degree of Saturation/ Ratio of Flow to Capacity A ratio of demand to capacity on each approach to the junction, with a value of 100% meaning the demand and capacity are equal and no further traffic is able to progress through the junction

Designated Landscape

Areas of landscape identified as being of importance at international, national or local levels, either defined by statute or identified in development plans or other documents.

Development Consent Order (DCO) Development consent is required pursuant to the Planning Act 2008 for Nationally Significant Infrastructure Projects. A development consent order is the order which grants development consent when an application is made to the Secretary of State.

Direct employment

Employment generated by direct activity on site.

Drinking Water Protected Area

Drinking Water Protected Areas (Surface Water) are, within the WFD, where raw water is abstracted from rivers and reservoirs. Raw water needs to be protected to ensure that it is not polluted which could lead to additional purification treatment. To do this water companies and the Environment Agency identify raw water sources that are 'at risk' of deterioration which would result in the need for additional treatment. These zones are areas where the land use is causing pollution of the raw water. Action is targeted in these zones to address pollution so that extra treatment of raw water can be avoided.

Drinking Water Safeguard Zones

Catchment areas that influence the water quality for their respective Drinking Water Protected Area (Surface Water), which are at risk of failing the drinking water protection objectives. These non-statutory Safeguard Zones are where action to address water contamination will be targeted, so that extra treatment by water companies can be avoided.

EN 15804

European Standard for the generation of EPD for construction products

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 in the environment from a 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. For certain projects, EIA is a statutory requirement.

Environmental Product Declaration (EPD)

An EPD is a document that quantifiably demonstrates the environmental impacts of a product.

Environmental Statement

A document produced in accordance with the EIA Directive as transposed into UK law by the EIA Regulations to report the results of an EIA.

Examining Authority

The person(s) appointed by the Secretary of State (SoS) to assess the Application and make a recommendation to the SoS.

Flood Zone 1

This is land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1% Annual Exceedance Probability (AEP)).

Flood Zone 2 This zone comprises land assessed as having between a 1

in 100 and 1 in 1,000 annual probability of river flooding (1% - 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% - 0.1%) in any year.

Flood Zone 3 This zone comprises land assessed as having a 1 in 100 or

greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea

(>0.5%) in any year.

Geophysical survey

Geophysical survey is a non-intrusive pre-construction archaeological evaluation technique that exploits a variety of physical or chemical characteristics of rocks and soils etc, in an attempt to locate underground features of archaeological interest. Types of geophysical survey include magnetometer survey, magnetic susceptibility survey and resistivity survey.

Grid Connection The

Route

The cable route between the Solar and Energy Storage Park and the substation at Cottam Power Station.

Gross impact Overall impact before taking into account the impact of

deadweight, displacement, leakage and substitution.

Heavy Goods Vehicle (HGV) Vehicles with 3 axles (articulated) or 4 or more axles (rigid and articulated).

Historic Environment Record The record of archaeological and built heritage features in a county or district, usually held and maintained by the relevant County Council.

Indirect employment

Employment growth arising through spending in the supply chain by activity on site (i.e. contracted out manufacturing and services).

Induced employment

Employment generated through spending by workforce (direct employment) in the economy.

Interconnecting Cables

Cables lying outside the Solar PV Site which link the Solar PV Areas to the substations. This excludes the 400 kV Grid Connection Cable.

This term is used to define the cables themselves and the land in which they are situated.

Interface cables
Buried high-voltage cables linking the on-site electrical

infrastructure to the National Grid.

Internal Cables Cables within the Solar PV Site.

Inverter Inverters are required to convert the DC electricity collected

by the PV modules into alternating current (AC), which

allows the electricity generated to be exported to the National Grid.

ISO 14025 ISO 14025:2006 establishes the principles and specifies

the procedures for developing Type III environmental declaration programmes and Type III environmental

declarations.

Jointing pit 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.

An area, as perceived by people, the character of which is Landscape

the result of the action and interaction of natural and/or

human factors.

Landscape and Visual Impact Assessment

A tool used to identify and assess the likely significance of the effects of change resulting from development both on the landscape as an environmental resource in its own

right and on people's views and visual amenity.

Landscape Character

A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from

another, rather than better or worse.

Landscape Character Area These are single unique areas which are the discrete geographical areas of a particular landscape type.

Landscape Character Assessment

The process of identifying and describing variation in the character of the landscape and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscapes distinctive. The process

results in the production of a Landscape Character

Assessment.

Landscape Character Types These are distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement

pattern, and perceptual and aesthetic attributes.

Landscape Effects Effects on the landscape as a resource in its own right.

Landscape Receptors

Defined aspects of the landscape resource that have the potential to be affected by a proposal.

Landscape Sensitivity A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor.

Landscape Value

The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons.

Light Goods Vehicle A commercial motor vehicle with a total gross weight of 3,500kg or less.

Link boxes

Underground chambers or above ground cabinets next to the cable route housing low voltage electrical earthing links.

Magnitude (of effect)

A term that combines judgements about the size and scale of the effect, 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.

Major Road Network The middle tier of England's busiest and most economically important local authority 'A' roads.

Manually
Classified Count

A traffic count which is undertaken manually such as by an observer visually counting and recording the volume of vehicles on a tally sheet.

Maximum parameters

These defines the worst case extent of design elements of the Scheme, or factors arising from them, for example maximum panel height should more than one option be considered, or trip generation if one layout/panel arrangement requires a greater number of HGV deliveries.

Middle Super Output Area A geographic hierarchy designed to improve the reporting of small area statistics in England and Wales, built from groups of contiguous Lower Layer Super Output Areas.

Mitigation

Measures including any process, activity, or design to avoid, prevent, reduce, or, if possible, offset any identified significant adverse effects on the environment.

National Grid Cottam Substation The substation at Cottam Power Station located south of Cottam village, Nottinghamshire owned and operated by National Grid and where the Grid Connection Cable will connect to.

National Policy Statement (NPS) National Policy Statements are produced by government. They comprise the government's central policy documents for the development of nationally significant infrastructure.

National Road Traffic Forecast A forecast for traffic demand, congestion and emissions in England and Wales.

Nationally Significant Infrastructure Projects (NSIP) NSIPs are large scale developments such as certain new harbours, power generating stations (including wind farms), highways developments and electricity transmission lines, which require a type of consent known as 'development consent' under procedures governed by the Planning Act 2008 (and amended by the Localism Act 2011).

National Transport Model A multi-modal model of land-based transport in Great Britain, used to inform transport policy and roads strategy and produce road traffic forecasts.

National Trip Ends Model A model which forecasts the growth in trip origindestinations (or production-attractions) for use in transport.

Nationally Significant Infrastructure Projects (NSIP) NSIPs are large scale developments such as certain new harbours, power generating stations (including wind farms), highways developments and electricity transmission lines, which require a type of consent known as 'development consent' under procedures governed by the Planning Act 2008 (and amended by the Localism Act 2011).

Net impact

Impact discounting deadweight (impact that would have happened without the intervention), displacement (proportion of intervention outputs/outcomes accounted for by reduced outputs/outcomes elsewhere in the target area), leakage (proportion of outputs that benefit those outside of the intervention's target area or group) and substitution (effect arises where a firm substitutes one activity for a similar one).

Nitrate Vulnerable Zone

NVZs are statutory designated areas as being at risk from agricultural nitrate pollution and includes about 55% of land in England. The designations are made in accordance with the Nitrate Pollution Prevention Regulations 2015.

NPS

National Policy Statement. National Policy Statements are produced by government. They comprise the government's central policy documents for the development of nationally significant infrastructure.

On-site substation

Compound containing electrical equipment to enable connection to the national grid.

PA 2008 The Planning Act 2008 (as amended).

Personal Injury Collision A collision involving a mechanically propelled vehicle on a road or other public area which causes injury or damage to a person.

Photomontage

A visualisation which superimposes an image of a proposed development upon a photograph or series of photographs.

Preferred Cable Route Corridor

The preferred routing of the 400 kV cables connecting the Solar PV Site to National Grid Cottam Substation within the wider Grid Connection Corridor.

Preliminary Ecological Appraisal (PEA) Comprises a desk study, Phase 1 Habitat Survey (which categorises habitats to a broad level using the methodologies set out by JNCC (1993 as amended) guidelines) and Protected Species Scoping survey (which includes preliminary survey work to identify the presence or potential presence of legally protected species).

Preliminary

PEI is defined in the EIA Regulations as: "information referred to in Regulation 14(2) which –

Environmental Information (PEI)

- (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)."

Preliminary Risk Assessment Report that presents a summary of readily-available information on the geotechnical and/or geo-environmental characteristics of the site and provides a qualitative assessment of geo-environmental and/or geotechnical risks in relation to the proposed development.

Principal Aquifer

These are layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer.

Proposed DCO Boundary The land potentially required temporarily and/or permanently for the construction, operation and maintenance of the Scheme.

Public Rights of Way

Rights across land exercisable by the public at all times.

Prepared for: Tillbridge Solar Ltd

Q95 Flow

River flow rate that is exceeded 95% of the time.

Receptor

A component of the natural or man-made environment that is affected by an impact, including people.

Representative Concentration

Pathways (RCPs)

Representative Concentration Pathways (RCPs) capture, within a set of scenarios, assumptions about the economic, social and physical changes to our environment that will influence climate change. The conditions of each scenario are used in the process of modelling possible future climate evolution.

RCPs specify concentrations of greenhouse gases that will result in total radiative forcing increasing by a target amount by 2100, relative to pre- industrial levels. Total radiative forcing is the difference between the incoming and outgoing radiation at the top of the atmosphere. Radiative forcing targets for 2100 have been set at 2.6, 4.5, 6.0 and 8.5 watts per square metre (W m-2) to span a wide range of plausible future emissions scenarios and these targets are incorporated into the names of the RCPs; RCP2.6, RCP4.5, RCP6.0 and RCP8.5. Each pathway results in a different range of global mean temperature increases over the 21st century.

Scheduled Monument

A 'nationally important' archaeological site or historic building, given protection against unauthorised change and included in the Schedule of Monuments kept by the Secretary of State for Culture, Media and Sport. The protection given to scheduled monuments is given under the Ancient Monuments and Archaeological Areas Act 1979.

Scheme

Tillbridge Solar is to be referred to as the Scheme, do not use the terms Project or Proposed Development. On first use within a chapter please use Tillbridge Solar (thereafter referred to as 'the Scheme').

The Scheme is the collective term for the Solar PV Site, the Interconnecting Cables and the Grid Connection Corridor. For example, 'The Scheme is located in the administrative areas of West Lindsey District Council and Bassetlaw District Council'.

The boundary of the Scheme is defined as the draft Order limits.

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 and avoids those that are considered to be less significant. Secondary (undifferentiated) aquifer

Assigned in cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.

Secondary A Aquifer

Secondary A aquifers comprise permeable layers that can support local water supplies and may form an important source of base flow to rivers.

Secondary B Aquifer

Predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.

The surroundings within which a heritage asset is experienced and any element, which contributes to the understanding of its significance.

> A measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic.

This is the extent of the land required identified at PEIR stage which is expected to be included within the DCO Application. For example, 'the land within the Scheme Boundary is...'.

This term is to be used rather than PEIR Boundary, Redline Boundary, Site Boundary, Development Boundary, etc.

The area scoped on for the purpose of the EIA and included within the Scoping Report. This term should not be utilised in the PEIR or ES reporting, unless specifically cross-referring to the Scoping Report or the definition of a study area defined by the scoping boundary.

Areas of land within which the solar PV panels and associated solar PV and battery storage infrastructure, including substations, are to be located.

Describes the total area covered by all the Solar PV Areas.

Setting

Significance

Scheme Boundary

Solar PV Areas

Scoping Boundary

Solar PV Site

Source Protection
Zone (SPZ)

SPZs show the risk of contamination from any activities that might cause pollution to groundwater sources such as wells, boreholes and springs used for public water supplies. The closer the activity, the greater the risk. SPZs can comprise of up to three main zones (inner, outer and total catchment). A fourth zone of special interest can also occasionally be applied to a groundwater source.

Study Area

The spatial area within which environmental effects are assessed (i.e., extending a distance from the project footprint in which significant environmental effects are anticipated to occur). This will vary between technical disciplines and should be defined early in each chapter under the appropriate heading.

Susceptibility

The ability of a defined landscape or visual receptor to accommodate the specific proposed development without undue negative consequences.

Sustainable drainage systems (SuDS)

Surface water drainage systems developed in line with the ideals of sustainable development (e.g. swales, ponds, basins, filtration flow control, etc).

Tillbridge Solar Limited

Describe on first use as 'the Applicant' and use the term the Applicant afterwards.

For example: Tillbridge Solar Limited (hereafter referred to as 'the Applicant').

Temporary construction compound

Any working area defined for the purpose of storage of plant, materials or equipment or for the use of welfare and site management.

Note: the cable working width will be used for storage and laydown also on an ad hoc basis to facilitate constructability.

Temporary Traffic Management

A system of controlling traffic movement (such as through or past a works site) to maximise safety for and minimise inconvenience to road workers and road users.

Tranquility A state of calm and quietude associated with peace, considered to be a significant asset of landscape.

Transformers Transformers control the voltage of the electricity generated across the site before it reaches the On-site substations.

Trip Ends Model Program

Software which allows users to view the National Trip Ends Model dataset and provides forecasts of trip ends and associated documentation.

Visual Effects

Effects on specific views and on the general visual amenity experienced by people.

Visual Receptors

People with views of the development or associated activities. These are located within the visual envelope and are typically residents, motorists, pedestrians, recreational users in residential areas on publicly accessible roads, footpaths and open spaces.

Water Framework Directive

The Water Framework Directive ("WFD") introduced a new system for monitoring and classifying the quality of surface and ground waters.

The Directive requires that Environmental Objectives be set for all surface waters and groundwater to enable them to achieve Good Ecological Potential/Status by a defined date.

Water Framework Directive Assessment As part of its role, the Environment Agency must consider whether proposals for new developments have the potential to a) Cause a deterioration of a water body from its current status or potential; and/or b) Prevent future attainment of Good status (or potential where not already achieved). A WFD Assessment determines whether a scheme is compliant with these criteria.

Well-to-tank (WTT) emissions

A Well-to-Tank emissions factor, also known as upstream or indirect emissions, is an average of all the GHG emissions released into the atmosphere from the production, processing and delivery of a fuel or energy vector.

Written Scheme of Investigation A Written Scheme of Investigation outlines known and potential archaeological features and deposits or built heritage elements on a site and suggests a structure for exploring them using the latest, most appropriate and cost-effective archaeological techniques.

Zone of Influence

The limit determined for each specialist study in which the construction or operation of the Scheme component has the potential to cause an adverse or beneficial effect on a receptor. This will inform the definition of the discipline-specific study area defined for their assessment.

This definition has been included for clarity and is a term commonly utilised by some disciplines. However, it is recommended that use of this term is avoided unless a specific process has been followed using a Zol to determine the study area.

Zone of Theoretical Visibility The zone within which views of a proposed development may be experienced, as determined by analysis of OS data and field survey. It is influenced by many factors including topography and intermediate visual intrusions, such as blocks of woodland and buildings.

