

Environmental Statement

Volume 2, Chapter 2: Historic Environment

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Contents

2	HIST	ORIC ENVIRONMENT	1
	2.1	Introduction	1
	2.2	Legislative and Policy Context	2
	2.3	Consultation and Engagement	
	2.4	Study Area	
	2.5	Scope of the Assessment	36
	2.6	Methodology	38
	2.7	Baseline Environment	
	2.8	Mitigation Measures Adopted as Part of the Proposed Development	46
	2.9	Key Parameters for Assessment	50
	2.10	Assessment of Construction Effects	55
	2.11	Assessment of Operation and Maintenance Effects	62
	2.12	Assessment of Decommissioning Effects	65
		Cumulative Environmental Assessment	
	2.14	Transboundary Effects	72
	2.15	Inter-related Effects	72
	2.16	Summary of Impacts, Mitigation Measures and Monitoring	73
	2.17	References	81

Tables

Table 2.1: Summary of relevant NPS policy	4
Table 2.2: Summary of NPPF requirements relevant to this chapter	9
Table 2.3: Summary of local planning policy relevant to this chapter1	1
Table 2.4: Summary of Scoping Responses1	2
Table 2.5: Summary of consultation relevant to this chapter2	0
Table 2.6: Impacts considered within this assessment	6
Table 2.7: Impacts scoped out of the assessment	7
Table 2.8: Sensitivity/value criteria	9
Table 2.9: Impact magnitude criteria4	0
Table 2.10: Assessment Matrix4	1
Table 2.11: Summary of desk study sources used4	2
Table 2.12: Designated sites and relevant qualifying interests4	3
Table 2.13: Key receptors taken forward to assessment4	6
Table 2.14: Mitigation measures adopted as part of the Proposed Development4	7
Table 2.15: Maximum design scenario considered for the assessment of impacts5	1
Table 2.16: Impact of the construction of the Proposed Development (except the	
converter stations and the Converter Site) on designated heritage asset5	8
Table 2.17 Impact of the construction of the converter stations and the Converter Site	
on designated heritage assets6	0
Table 2.18: Impact of the operation and maintenance of the converter stations and	
the Converter Site on designated heritage assets	3
Table 2.19: List of cumulative developments considered within the CEA	8
Table 2.20: Summary of environmental effects7	
Table 2.21: Summary of cumulative environmental effects7	9

Xlinks' Morocco-UK Power Project - Environmental Statement

Figures (See Volume 2, Figures)

Figure Number	Figure Title
2.1	Historic environment study area
2.2	Designated heritage assets within the 1 km settings study area
2.3	Designated heritage assets within the 5 km settings study area
2.4	Other projects and plans considered within the Cumulative Effects Assessment

Appendices (See Volume 2, Appendices)

Appendix Number	Appendix Title
2.1	Historic Environment Desk-Based Assessment
2.2	Onshore Geophysical Survey Report
2.3	Preliminary Trial Trenching Report
2.4	Settings Assessment

Xlinks' Morocco-UK Power Project - Environmental Statement

Glossary

Term	Meaning
Abnormal Indivisible Loads	Loads or vehicles that exceed maximum vehicle weight, axle weight or dimensions as set out in the Road Vehicles (Construction and Use) Regulations 1986 as amended.
Alverdiscott Substation	The existing National Grid Electricity Transmission substation at Alverdiscott, Devon, which comprises 400 kV and 132 kV electrical substation equipment.
Alverdiscott Substation Connection Development	The development required at the existing Alverdiscott Substation Site, which is envisaged to include development of a new 400 kV substation, and other extension modification works to be carried out by National Grid Electricity Transmission. This does not form part of the Proposed Development, however, it is considered cumulatively within the Environmental Impact Assessment as it is necessary to facilitate connection to the national grid.
Alverdiscott Substation Site	The National Grid Electricity Transmission site within which the Alverdiscott Substation sits.
Applicant	Xlinks 1 Limited.
Baseline	The status of the environment without the Proposed Development in place.
Bipole	A Bipole system is an electrical transmission system that comprises two Direct Current conductors of opposite polarity (one conductor with positive voltage and one with negative voltage).
Bronze Age	The time period 1800 to 600 BC.
Climate change	A change in global or regional climate patterns, in particular a change apparent from the mid to late 20 th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.
Conservation Area	An area designated by a local authority as being of special architectural or historic interest.
Construction Environmental Management Plan	A document detailing the overarching management principles for construction, which includes construction-related environmental management measures, pollution prevention measures, the selection of appropriate construction techniques and monitoring processes.
Construction Traffic Management Plan	A document detailing the construction traffic routes for heavy goods vehicles and personnel travel, protocols for delivery of Abnormal Indivisible Loads to site, measures for road cleaning and sustainable site travel measures.
Converter Site	The Converter Site is proposed to be located to the immediate west of the existing Alverdiscott Substation Site in north Devon. The Converter Site would contain two converter stations (known as Bipole 1 and Bipole 2) and associated infrastructure, buildings and landscaping.
Converter station	Part of an electrical transmission and distribution system. Converter stations convert electricity from Direct Current to Alternating Current, or vice versa.
Cumulative Effects	The combined effect of the Proposed Development in combination with the effects from other planning applications, on the same receptor or resource.
Designated heritage asset	A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.
Development Consent Order	An order made under the Planning Act 2008, as amended, granting development consent.
Duration (of impact)	The time over which an impact occurs. An impact may be described as short, medium or long-term and permanent or temporary.
Early Medieval Period	The time period AD 410 to 1066.
Effect	The term used to express the consequence of an impact. The significance of effect is determined by correlating magnitude of the impact with the importance,

Term	Meaning
	or sensitivity, of the receptor or resource in accordance with defined significance criteria.
Environmental Impact Assessment	The process of identifying and assessing the significant effects likely to arise from a project. This requires consideration of the likely changes to the environment, where these arise as a consequence of a project, through comparison with the existing and projected future baseline conditions.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
Heritage asset	A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest.
Heritage significance	The value of a heritage asset to this and future generations because of its heritage interest. The interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.
Historic landscape characterisation	An aspect of more general landscape characterisation that seeks to provide an additional element of 'time-depth', allowing the historic evolution of the landscape to be perceived and understood.
HVAC Cables	The High Voltage Alternating Current cables which would bring electricity from the converter stations to the new Alverdiscott Substation Connection Development.
HVAC Cable Corridors	The proposed corridors (for each Bipole) within which the onshore High Voltage Alternating Current cables would be routed between the Converter Site and the Alverdiscott Substation Site.
HVDC Cables	The High Voltage Direct Current cables which would bring electricity to the UK converter stations from the Moroccan converter stations.
Impact	Change that is caused by an action/proposed development, e.g., land clearing (action) during construction which results in habitat loss (impact).
Inter-related Effects	Multiple effects on the same receptor as a result of the Proposed Development. These occur when a series of the same effect acts on a receptor over time to produce a potential additive effect or where a number of separate effects, such as noise and habitat loss, affect a single receptor.
Intertidal area	The area between Mean High Water Springs and Mean Low Water Springs.
Iron Age	The time period 600 BC to AD 43.
Landfall	The proposed area in which the offshore cables make landfall in the United Kingdom (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Cornborough Range, Devon, between Mean Low Water Springs and the transition joint bays inclusive of all construction works, including the offshore and onshore cable routes, and landfall compound(s).
Listed building	A building or structure placed on a statutory 'List' of Buildings of Special Architectural or Historic Interest. There are three grades of listing, which are:
	• grade I (these are of exceptional interest);
	 grade II* (these are particularly important); and
Least Authorit	grade II (these are of special interest).
Local Authority	A body empowered by law to exercise various statutory functions for a particular area of the United Kingdom. This includes County Councils, District Councils and County Borough Councils. The relevant Local Authorities for the Proposed Development are Devon County Council and Torridge District Council.
Maximum design scenario	The realistic worst-case scenario, selected on a topic-specific and impact specific basis, from a range of potential parameters for the Proposed Development.

Term	Meaning
Mean High Water Springs	The height of mean high low water during spring tides in a year.
Medieval Period	The time period AD 1066 to 1485.
Mesolithic Period	The time period 12,000 to 4,000 BC.
Modern Period	The time period AD 1800 to present.
National Grid Electricity Transmission	National Grid Electricity Transmission owns and maintains the electricity transmission network in England and Wales.
National Heritage List for England	List of nationally designated heritage assets maintained by Historic England.
National Policy Statement(s)	The current national policy statements published by the Department for Energy Security and Net Zero in 2023 and adopted in 2024.
Neolithic Period	The time period 4,000 to 1,800 BC.
Onshore HVDC Cable Corridor	The proposed corridor within which the onshore High Voltage Direct Current cables would be located.
Onshore Infrastructure Area	The proposed infrastructure area within the Order Limits landward of Mean High Water Springs. The Onshore Infrastructure Area comprises the transition joint bays, onshore HVDC Cables, converter stations, HVAC Cables, highways improvements, utility diversions and associated temporary and permanent infrastructure including temporary and permanent compound areas and accesses.
Order Limits	The area within which all offshore and onshore components of the Proposed Development are proposed to be located, including areas required on a temporary basis during construction (such as construction compounds).
Policy	A set of decisions by governments and other political actors to influence, change, or frame a problem or issue that has been recognized as in the political realm by policy makers and/or the wider public.
Post-medieval Period	The time period AD 1486 to 1799.
Prehistoric Period	The general term used for the time period before the Roman invasion of AD 43.
Proposed Development	The element of Xlinks' Morocco-UK Power Project within the UK. The Proposed Development covers all works required to construct and operate the offshore cables (from the UK Exclusive Economic Zone to Landfall), Landfall, onshore Direct Current and Alternating Current cables, converter stations, and highways improvements.
Preliminary Environmental Information Report	A report that provides preliminary environmental information in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. This is information that enables consultees to understand the likely significant environmental effects of a project, and which helps to inform consultation responses.
Receptor	The element of the receiving environment that is affected.
Registered Park and Garden	 A park and/or garden of special historic interest placed on a non-statutory Register. There are three grades of registration: grade I – these are of exceptional interest; grade II* - these are particularly important; and grade II – these are of special interest.
Roman Period	The time period AD 43 - 410.
Scheduled Monument	An archaeological site given legal protection by being placed on a 'Schedule' of monuments.
Scoping Opinion	Sets out the Planning Inspectorate's response (on behalf of the Secretary of State) to the Scoping Report prepared by the Applicants. The Scoping Opinion contains the range of issues that the Planning Inspectorate, in consultation with

Term	Meaning
	statutory stakeholders, has identified should be considered within the Environmental Impact Assessment process.
Spatial extent	Geographical area over which the impact may occur.
Study area	This is an area which is defined for each environmental topic which includes the Order Limits as well as potential spatial and temporal considerations of the impacts on relevant receptors. The study area for each topic is intended to cover the area within which an impact can be reasonably expected.
Survey area	The area within which each survey has been undertaken. This may differ from the study area as a survey area will be based on species or survey-specific guidance on the extent of survey required, which may be limited by, for example, habitat conditions, or be defined in terms of buffer areas around an area of potential impact.
The national grid	The network of power transmission lines which connect substations and power stations across Great Britain to points of demand. The network ensures that electricity can be transmitted across the country to meet power demands.
Transboundary effects	Effects from a project within one state that affect the environment of another state(s).
Utility Diversions	Works required by statutory utility providers to re-route infrastructure around the Proposed Development.
Xlinks' Morocco UK Power Project	The overall scheme from Morocco to the national grid, including all onshore and offshore elements of the transmission network and the generation site in Morocco (referred to as the 'Project').

Acronyms

Acronym	Meaning
AC	Alternating Current
AD	Anno Domini – after the birth of Christ
AIL	Abnormal Indivisible Load
BC	Before Christ
ClfA	Chartered Institute for Archaeologists
СТМР	Construction Traffic Management Plan
DC	Direct Current
DCO	Development Consent Order
DESNZ	The Department for Energy Security and Net Zero
DMRB	Design Manual for Roads and Bridges
EIA	Environmental Impact Assessment
ES	Environmental Statement
HDD	Horizontal Directional Drilling
HER	Historic Environment Record
HET	Historic Environment Team
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IEMA	Institute for Environmental Management and Assessment
LEMP	Landscape and Ecology Management Plan

Acronym	Meaning
MHWS	Mean High Water Springs
NGET	National Grid Electricity Transmission
NHLE	National Heritage List for England
NPPF	National Planning Policy Framework
NPS	National Policy Statement
OS	Ordnance Survey
OWSI	Outline Written Scheme of Investigation
PAS	Portable Antiquities Scheme
PEIR	Preliminary Environmental Information Report
PPG	Planning Practice Guidance
UK	United Kingdom
WSI	Written Scheme of Investigation
ZTV	Zone of Theoretical Visibility

Units

Units	Meaning
km	Kilometre
kV	Kilovolt
m	Metre
mm	Millimetre
m²	Metre squared
nm	Nautical miles

Xlinks' Morocco-UK Power Project - Environmental Statement

2 HISTORIC ENVIRONMENT

2.1 Introduction

- 2.1.1 This chapter of the Environmental Statement (ES) presents the findings of the Environmental Impact Assessment (EIA) undertaken for the United Kingdom (UK) elements of Xlinks' Morocco-UK Power Project (the 'Project'). For ease of reference, the UK elements of the Project are referred to in this chapter as the 'Proposed Development'. The ES accompanies the application to the Planning Inspectorate for development consent for the Proposed Development.
- 2.1.2 This chapter considers the likely impacts and effects of the Proposed Development on the historic environment during the construction, operation and maintenance and decommissioning phases. Specifically, it relates to the onshore elements of the Proposed Development landward of Mean High Water Springs (MHWS). Those elements of the Proposed Development located seaward of MHWS are addressed in Volume 3, Chapter 7: Marine Archaeology and Cultural Heritage of the ES.
- 2.1.3 In particular, this ES chapter:
 - identifies the key legislation, policy and guidance relevant to the historic environment;
 - details the EIA scoping and consultation process undertaken to date for the historic environment;
 - confirms the study area for the assessment, the methodology used to identify baseline environmental conditions, the impact assessment methodology, and identifies any assumptions and limitations encountered in compiling the environmental information;
 - sets out the existing and future environmental baseline conditions, established from desk studies, surveys and consultation;
 - details the mitigation and/or monitoring measures that are proposed to prevent, minimise, reduce or offset the possible environmental effects identified in the EIA process;
 - defines the project design parameters used to inform for the impact assessment;
 - presents an assessment of the likely impacts and effects in relation to the construction, operation and maintenance and decommissioning phases of the Proposed Development on the historic environment; and
 - identifies any cumulative, transboundary and/or inter-related effects in relation to the construction, operation and maintenance and decommissioning phases of the Proposed Development on the historic environment.
- 2.1.4 The assessment presented is informed by the following technical chapters and should be read in conjunction with:
 - Volume 4, Chapter 2: Landscape, Seascape and Visual Resources of the ES.
- 2.1.5 This chapter also draws upon additional information to support the assessment contained within:

Xlinks' Morocco-UK Power Project - Environmental Statement

- Volume 2, Appendix 2.1: Historic Environment Desk-based Assessment of the ES;
- Volume 2, Appendix 2.2: Onshore Geophysical Survey Report of the ES;
- Volume 2, Appendix 2.3: Preliminary Trial Trenching Report of the ES; and
- Volume 2. Appendix 2.4: Settings Assessment of the ES.

2.2 Legislative and Policy Context

Legislation

- 2.2.1 A summary of the relevant legislation is provided below, with further details included in Volume 2, Appendix 2.1: Historic Environment Desk-based Assessment of the ES.
- 2.2.2 Statutory protection for archaeological remains is principally enshrined in the Ancient Monuments and Archaeological Areas Act 1979. Nationally important archaeological sites are listed in a Schedule of Monuments and are afforded statutory protection.
- 2.2.3 The Planning (Listed Buildings and Conservation Areas) Act 1990 and the Town and Country Planning Act 1990 provide statutory protection to Listed Buildings, and present measures to designate and preserve the character and appearance of Conservation Areas.
- 2.2.4 Historic Parks and Gardens, and Historic Battlefields, have received recognition under the National Heritage Acts 1980, 1983 and 2002. Such sites are described on registers maintained by Historic England for the Department for Culture, Media and Sport, but such a designation does not afford statutory protection.
- 2.2.5 Additional protection regarding the settings of World Heritage Sites, Scheduled Monuments, Registered Parks and Gardens and Protected Wrecks is set out in the Levelling Up and Regeneration Act 2023, but the relevant section of the Act has not yet been enacted.
- 2.2.6 The Infrastructure Planning (Decisions) Regulations 2010 require decision-makers to have regard for the desirability of:
 - preserving Listed Buildings and their settings or any features of special architectural or historic interest that they possess;
 - preserving or enhancing the character or appearance of Conservation Areas; and
 - preserving scheduled monuments and their settings.
- 2.2.7 The European Landscape Convention was signed by the UK government in 2006 and introduced in March 2007. It seeks to ensure the protection, management and planning of all landscapes in Europe through the sensitive management of changes to those landscapes. It contains 18 articles which promote protection, management and planning of landscapes. Article 5 requires signatories:
 - 'to recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity;

Xlinks' Morocco-UK Power Project - Environmental Statement

- to establish and implement landscape policies aimed at landscape protection, management and planning through the adoption of the specific measures set out in Article 6;
- to establish procedures for the participation of the general public, local and regional authorities, and other parties with an interest in the definition and implementation of the landscape policies mentioned in paragraph b above; and
- to integrate landscape into its regional and town planning policies and in its cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape.'
- 2.2.8 The Convention for the Protection of the Architectural Heritage of Europe (the Grenada Convention) came into force in 1987. The UK is a signatory. It provides a legally binding instrument which provides a framework for a unified approach to the conservation of architectural heritage across Europe. Article 3 requires signatories to undertake statutory measures to protect its architectural heritage and to make provision for their protection. Article 4 requires signatories to put supervision and authorisation procedures in place to ensure the protection of protected buildings from demolition or unacceptable development, and avenues to require owners of protected buildings to maintain them, or to allow compulsory purchase where appropriate. Article 9 requires the establishment of sanctions for transgressions against protected buildings, whilst Article 10 requires signatories to establish conservation policies to ensure the protection of architectural heritage.
- 2.2.9 The European Convention on the Protection of Archaeological Heritage (the Valetta Convention) came into force in 1995. The UK is a signatory. It provides a framework for a unified approach to the protection, preservation and scientific research of archaeological heritage in Europe. Article 2 requires signatories to install a legal system for the protection of the archaeological heritage, making provision for:
 - the maintenance of an inventory of its archaeological heritage and the designation of protected monuments and areas;
 - the creation of archaeological reserves, even where there are no visible remains on the ground or under water, for the preservation of material evidence to be studied by later generations; and
 - the mandatory reporting to the competent authorities by a finder of the chance discovery of elements of the archaeological heritage and making them available for examination.
- 2.2.10 Article 3 requires signatories to preserve the archaeological heritage and guarantee the scientific significance of archaeological research work, whilst Article 4 requires them to implement measures for the physical protection of archaeological heritage. Article 5 requires that archaeological heritage is considered appropriately within planning policies, determinations and EIA, whilst also ensuring that there is the option of preserving important remains *in situ*. Article 6 establishes the 'polluter pays' principle requiring those bringing public or private schemes forward to finance the archaeological work required prior to determination of applications, along with any archaeological fieldwork, post-excavation work and publication and dissemination of that work.

Planning Policy Context

- 2.2.11 A summary of the relevant planning policy context is provided below, with further details included in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES.
- 2.2.12 The Proposed Development would be located within the UK Exclusive Economic Zone offshore waters (beyond 12 nautical miles (nm) from the English coast) and inshore waters, with the onshore infrastructure proposed to be located wholly within Devon, England. As set out in Volume 1, Chapter 1: Introduction of the ES, the Secretary of State for the Department for Energy Security and Net Zero (DESNZ) has directed that elements of the Proposed Development are to be treated as development for which development consent is required under the Planning Act 2008, as amended.

National Policy Statements

- 2.2.13 There are currently six energy National Policy Statements (NPSs), three of which contain policy relevant to the Proposed Development, specifically:
 - Overarching NPS for Energy (NPS EN-1) which sets out the UK Government's policy for the delivery of major energy infrastructure (Department for Energy Security & Net Zero 2023a);
 - NPS for Renewable Energy Infrastructure (NPS EN-3) (Department for Energy Security & Net Zero 2023b); and
 - NPS for Electricity Networks Infrastructure (NPS EN-5) (Department for Energy Security & Net Zero 2023c).
- 2.2.14 **Table 2.1** sets out key aspects from the NPSs relevant to the historic environment.
- 2.2.15 The policies within the current NPSs relevant to all topics in the ES can be viewed in the NPS Compliance Tracker within the Planning Statement (document reference 7.2), which forms part of the Development Consent Order (DCO) application.

Table 2.1: Summary of relevant NPS policy

Summary of NPS requirement	How and where considered in the ES
NPS EN-1	
'The applicant should undertake an assessment of any likely significant impacts of the proposed development as part of the Environmental Impact Assessment, and describe these along with how the mitigation hierarchy has been applied in the ES. This should include consideration of heritage assets above, at, and below the surface of the ground. Consideration will also need to be given to the possible impacts, including cumulative, on the wider historic environment. The assessment should include reference to any historic landscape or seascape character assessment and associated studies as a means of assessing impacts relevant to the proposed project.' (paragraph 5.9.9 of NPS EN-1)	The assessment of likely impacts is presented in sections 2.10 to 0 of this ES chapter and includes consideration of heritage assets below, at and above the surface of the ground. It includes consideration of impact on the wider historic landscape. The assessment of likely cumulative impacts is presented in section 2.13 of this ES chapter. The assessment includes references to historic landscape character assessments as appropriate.

Summary of NPS requirement	How and where considered in the ES
'As part of the ES the applicant should provide a description of the significance of the heritage assets affected by the proposed development, including any contribution made by their setting. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum, the applicant should have consulted the relevant Historic Environment Record (or, where the development is in English or Welsh waters, Historic England or Cadw) and assessed the heritage assets themselves using expertise where necessary according to the proposed development's impact.' (Paragraph 5.9.10 of NPS EN-1)	The baseline historic environment has been established through a review of available information acquired from appropriate sources, including the relevant Historic Environment Record (HER). A description of the significance of the heritage assets affected by the Proposed Development is provided in section 2.7 of this ES chapter. Additional information regarding the historic environment baseline situation is provided in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES.
'Where a site on which development is proposed includes, or the available evidence suggests it has the potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation. Where proposed development will affect the setting of a heritage asset, accurate representative visualisations may be necessary to explain the impact.' (Paragraph 5.9.11 of NPS EN-1)	The desk-based assessment is presented in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES. Field evaluation has been undertaken and the available results are presented in Volume 2, Appendix 2.3: Preliminary Trial Trenching Report of the ES and Volume 2, Appendix 2.2: Onshore Geophysical Survey Report of the ES. Representative visualisations have been produced for the assessment presented in Volume 4, Appendix 2.5: Landscape Visualisations. Where relevant these have been used to assist in the assessment of impacts related to the settings of heritage assets. An additional visualisation in relation to the Scheduled Monument at Higher Kingdon is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES (see Figures 5 to 7).
'The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents. Studies will be required on those heritage assets affected by noise, vibration, light and indirect impacts, the extent and detail of these studies will be proportionate to the significance of the heritage assets affected.' (Paragraph 5.9.12 of NPS EN-1)	The impact of the Proposed Development on the significance of heritage assets is clearly assessed within sections 2.10 to 0 of this ES chapter. The assessments presented within sections 2.10 to 0 of this ES chapter include consideration of potential noise, vibration, light and indirect impacts.
 The applicant is encouraged, where opportunities exist, to prepare proposals which can make a positive contribution to the historic environment, and to consider how their scheme takes account of the significance of heritage assets affected. This can include, where possible: enhancing, through a range of measures such a sensitive design, the significance of heritage assets or setting affected considering where required the development of archive capacity which could deliver significant public benefits 	of heritage assets have been identified.

Summary of NPS requirement	How and where considered in the ES
 considering how visual or noise impacts can affect heritage assets, and whether there may be opportunities to enhance access to, or interpretation, understanding and appreciation of, the heritage assets affected by the scheme. 	
(Paragraph 5.9.13 of NPS EN-1)	
Careful consideration in preparing the scheme will be required on whether the impacts on the historic environment will be direct or indirect, temporary, or permanent. (Paragraph 5.9.14 of NPS EN-1)	The impact of the Proposed Development on the significance of heritage assets is assessed within section 2.10 to 0 . This includes consideration of the nature and timescale of any impacts.
Applicants should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably. (Paragraph 5.9.15 of NPS EN-1)	No opportunities for enhancement of the significance of heritage assets have been identified.
A documentary record of our past is not as valuable as retaining the heritage asset, and therefore the ability to record evidence of the asset should not be a factor in deciding whether such loss should be permitted, and whether or not consent should be given. (Paragraph 5.9.16 of NPS EN-1)	The impact of the Proposed Development on the significance of heritage assets is assessed within section 2.10 to 0 . Where recording evidence of an asset is proposed, this is regarded as offsetting the impact rather than mitigating the impact.
Where the loss of the whole or part of a heritage asset's significance is justified, the Secretary of State will require the applicant to record and advance understanding of the significance of the heritage asset before it is lost (wholly or in part). The extent of the requirement should be proportionate to the asset's importance and significance and the impact. The applicant should be required to publish this evidence and to deposit copies of the reports with the relevant Historic Environmental Record. They should also be required to deposit the archive generated in a local museum or other public repository willing to receive it. (Paragraph 5.9.17 of NPS EN-1) Where appropriate, the Secretary of State will impose requirements on the Development Consent Order to ensure that the work is undertaken in a timely manner, in accordance with a written scheme of investigation that complies with the policy in this NPS and which has been agreed in writing with the relevant local authority, and to ensure that the completion of the exercise is properly secured. (Paragraph 5.9.18 of NPS EN-1)	An outline programme of further archaeological and geoarchaeological investigation is set out in the Outline Onshore Written Scheme of Investigation (document reference 7.8). This document provides an overview of the methodologies that would be used to record any heritage asset that may be lost (wholly or in part) during construction of the Proposed Development. It includes reference to the publication of evidence and the deposition of information with the Devon HER, also the deposition of the archive with the appropriate museum service. DCO Schedule 2, Requirement 11 within the draft DCO (document reference 3.1) establishes that a detailed Onshore Written Scheme of Investigation will be prepared in accordance with the Outline Onshore Written Scheme of Investigation (document reference 7.8).
[•] In determining applications, the Secretary of State should seek to identify and assess the particular significance of any heritage asset that may be affected by the proposed development, including by	This information is presented within section 2.7 of this ES chapter, with additional information provided in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES.

Summary of NPS requirement	How and where considered in the ES
development affecting the setting of a heritage asset.' (Paragraph 5.9.22 of NPS EN-1)	
The Secretary of State must also comply with the requirements on listed buildings, conservation areas and scheduled monuments, set out in Regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010. (Paragraph 5.9.23 of NPS EN-1)	The legislative context relevant to the historic environment, including the Infrastructure Planning (Decisions) Regulations 2010 is detailed in section 2.2 of this ES chapter.
In considering the impact of a proposed development on any heritage assets, the Secretary of State should consider the particular nature of the significance of the heritage assets and the value that they hold for this and future generations. This understanding should be used to avoid or minimise conflict between their conservation and any aspect of the proposal. (Paragraph 5.9.24 of NPS EN-1)	The historic environment baseline is summarised in section 2.7 of this ES Chapter and presented in greater detail in Volume 2, Appendix 2.1: Historic Environment Desk-based Assessment. The impact of the Proposed Development on the significance of heritage assets is assessed within section 2.10 to 0 of this ES chapter. This is supported by Volume 2, Annex 2.4: Settings Assessment of the ES.
The Secretary of State should consider the desirability of sustaining and, where appropriate, enhancing the significance of heritage assets, the contribution of their settings and the positive contribution that their conservation can make to sustainable communities, including to their quality of life, their economic vitality, and to the public's enjoyment of these assets. (Paragraph 5.9.25 of NPS EN-1)	The impact of the Proposed Development on the significance of heritage assets is assessed within section 2.10 to 0 of this ES chapter. This is supported by Volume 2, Annex 2.4: Settings Assessment of the ES. Mitigation measures are detailed in Table 2.14 of this ES chapter. No opportunities for enhancement of the significance of heritage assets have been identified.
The Secretary of State should also consider the desirability of the new development making a positive contribution to the character and local distinctiveness of the historic environment. The consideration of design should include scale, height, massing, alignment, materials, use and landscaping (for example, screen planting). (Paragraph 5.9.26 of NPS EN-1)	Volume 1, Chapter 3: Project Description of the ES provides details of the design at the time of the DCO application. Mitigation measures relevant to the historic environment are detailed in Table 2.14 of this ES chapter.
When considering the impact of a proposed development on the significance of a designated heritage asset, the Secretary of State should give great weight to the asset's conservation. The more important the asset, the greater the weight should be. This is irrespective of whether any potential harm amounts to substantial harm, total loss, or less than substantial harm to its significance. (Paragraph 5.9.27 of NPS EN-1)	The impact of the Proposed Development on the significance of heritage assets is assessed within section 2.10 to 0 of this ES chapter. This is supported by Volume 2, Annex 2.4: Settings Assessment of the ES. Mitigation measures relevant to the historic environment are detailed in Table 2.14 of this ES chapter.
The Secretary of State should give considerable importance and weight to the desirability of preserving all heritage assets. Any harm or loss of significance of a designated heritage asset (from its alteration or destruction, or from development within its setting) should require clear and convincing justification. (Paragraph 5.9.28 of NPS EN-1)	

Summary of NPS requirement	How and where considered in the ES
Substantial harm to or loss of significance of a grade II Listed Building or a grade II Registered Park or Garden should be exceptional. Substantial harm to or loss of significance of assets of the highest significance, including Scheduled Monuments; Protected Wreck Sites; Registered Battlefields; grade I and II* Listed Buildings; grade I and II* Registered Parks and Gardens; and World Heritage Sites, should be wholly exceptional. Where the proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset the Secretary of State should refuse consent unless it can be demonstrated that the substantial harm to, or loss of, significance is necessary to achieve substantial public benefits that outweigh that harm or loss, or all the following	The impact of the Proposed Development on the significance of heritage assets is assessed within section 2.10 to 0 of this ES chapter. This is supported by Volume 2, Annex 2.4: Settings Assessment of the ES.
apply:	
 the nature of the heritage asset prevents all reasonable uses of the site 	
• no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation	
• the harm or loss is outweighed by the benefit of bringing the site back into use.	
(Paragraph 5.9.29 to 5.9.31 of NPS EN-1)	
Where the proposed development will lead to less than substantial harm to the significance of the designated heritage asset, this harm should be weighed against the public benefits of the proposal, including, where appropriate securing its optimum viable use. (Paragraph 5.9.32 of NPS EN-1)	
In weighing applications that directly or indirectly	
affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.	
(Paragraph 5.9.33 of NPS EN-1)	
Not all elements of a Conservation Area or World Heritage Site will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 5.9.30 or less than substantial harm under paragraph 5.9.32, as appropriate, considering the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole. (Paragraph 5.9.34 of NPS EN-1)	
Where there is evidence of deliberate neglect of, or damage to, a heritage asset, the Secretary of State	Information relating to the historic environment baseline (including heritage assets) is provided in section 2.7 of this ES chapter and in Volume 2,

Summary of NPS requirement	How and where considered in the ES
should not take its deteriorated state into account in any decision. (Paragraph 5.9.35 of NPS EN-1)	Appendix 2.1: Historic Environment Desk-Based Assessment of the ES.
When considering applications for development affecting the setting of a designated heritage asset, the Secretary of State should give appropriate weight to the desirability of preserving the setting such assets and treat favourably applications that preserve those elements of the setting that make a positive contribution to, or better reveal the significance of, the asset. When considering applications that do not do this, the Secretary of State should give great weight to any negative effects, when weighing them against the wider benefits of the application. The greater the negative impact on the significance of the designated heritage asset, the greater the benefits that will be needed to justify approval. (Paragraph 5.9.36 of NPS EN-1)	The impact of the Proposed Development on the significance of designated and non-designated heritage assets is assessed within section 2.10 to 0 of this ES chapter. This chapter is informed by Volume 2, Annex 2.4: Settings Assessment, which presents the results of the assessment of potential impacts and effects arising from changes within the settings of designated heritage assets as a result of the Proposed Development.

2.2.16 The NPS for Renewable Energy Infrastructure (EN-3; DESNZ, 2023b) and the NPS for Electricity Networks Infrastructure (EN-5; DESNZ, 2023c) do not provide any additional policies or advice specific to the historic environment over and above those presented within NPS EN-1. However, a section in EN-5 regarding landscape and visual effects (section 2.9) advises that there are issues regarding the undergrounding of electricity cables, including impacts on designated heritage assets, that may have to be taken in account when considering this action as an alternative to the construction and use of an overhead line.

The National Planning Policy Framework

- 2.2.17 The National Planning Policy Framework (NPPF) was published in 2012 and updated in 2018, 2019 and 2021 and 2023 (Ministry of Housing, Communities & Local Government, 2023). The NPPF sets out the Government's planning policies for England.
- 2.2.18 The NPPF has been updated and the draft version was published for consultation on 30 July 2024 with the consultation period ending on 24 September 2024 (Ministry of Housing, Communities and Local Government, 2024).
- 2.2.19 Policies regarding the historic environment are set out in Chapter 16 of the NPPF and further details of these policies are provided Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES.
- 2.2.20 **Table 2.2** sets out a summary of the NPPF policies relevant to this chapter.

Table 2.2: Summary of NPPF requirements relevant to this chapter

Policy	Key provisions	How and where considered in the ES
Paragraph 200	Applicants should provide a description of the significance of the heritage assets affected by the proposed development and the contribution of their setting towards that significance.	A description of the baseline heritage assets is provided in section 2.7 of this ES chapter, with further detail provided in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES.

Xlinks' Morocco-UK Power Project - Environmental Statement

Policy	Key provisions	How and where considered in the ES
Paragraph 201	Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.	The impact of the Proposed Development on the significance of designated and non-designated heritage assets is assessed within sections 2.10 to 0 of this ES chapter. This chapter is informed by Volume 2, Appendix 2.4: Settings Assessment of the ES, which presents the results of the assessment of potential impacts and effects arising from changes within the settings of designated heritage assets as a result of the Proposed Development.
Paragraph 202	Where there is evidence of deliberate neglect of, or damage to, a heritage asset, the deteriorated state of the heritage asset should not be taken into account in any decision.	Information relating to the historic environment baseline (including heritage assets) is provided in section 2.7 of this ES chapter and in Volume 2, Annex 2.1: Historic Environment Desk-Based
Paragraph 203	In determining applications, local planning authorities should take account of: a) the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation; b) the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and c) the desirability of new development making a positive contribution to local character and distinctiveness.	Assessment of the ES.
Paragraph 205	When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.	The impact of the Proposed Development on the significance of designated and non-designated heritage assets is assessed within sections 2.10 to 0 of this ES chapter. This chapter is informed by Volume 2, Appendix 2.4: Settings Assessment of the ES. The assessment of cumulative impacts is presented within section 2.13 of this ES chapter.

- 2.2.21 The draft NPPF includes similar provisions as the current designated NPPF. The draft NPPF has been reviewed and there are no material updates for Historic Environment.
- 2.2.22 The Planning Practice Guidance (PPG) (Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities and Local Government, 2023) supports the NPPF and provides guidance across a range of topic areas.
- 2.2.23 With regard to the historic environment, the PPG provides guidance on specific issues such as '*What is 'significance*'' and '*What is the setting of a heritage asset and how should it be taken into account?*'. Further details of this guidance are

provided in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES.

Local Planning Policy

2.2.24 The onshore elements of the Proposed Development are located within the administrative area of Torridge District Council (and Devon County Council at the County level). The relevant local planning policies applicable to the historic environment based on the extent of the study areas for this assessment are summarised in **Table 2.3** with further details provided in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES.

Policy	Key provisions	How and where considered in the ES
North Devon and Tor	ridge Local Plan 2011-2023	
ST15: Conserving Heritage Assets	Great weight will be given to the desirability of preserving and enhancing the historic environment of northern Devon.	Where possible, conservation and protection of the historic environment has been achieved through the design of the Proposed Development as described in section 2.8 of this ES chapter.
DM07: Historic Environment	Development proposals should be accompanied by sufficient information to enable the impact of the proposals on any heritage assets to be properly assessed.	A description of the baseline heritage assets is provided in section 2.7 of this ES chapter and in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES. The impact of the Proposed Development on the significance of heritage assets is assessed within sections 2.10 to 0 of this ES chapter.

Table 2.3: Summary of local planning policy relevant to this chapter

Relevant Guidance

- 2.2.25 The following guidance documents have been considered in the compilation of the historic environment baseline and the subsequent assessment of impacts and effects.
 - Conservation Principles, Policies and Guidance for the sustainable management of the historic environment (English Heritage, 2008);
 - Standard and guidance for historic environment desk-based assessment (Chartered Institute for Archaeologists (CIfA), 2020a);
 - Standard and guidance for archaeological geophysical survey (CIfA, 2020b);
 - Managing Significance in Decision-Taking in the Historic Environment (Historic England, 2015);
 - The Setting of Heritage Assets (Historic England, 2017);
 - Statements of Heritage Significance: Analysing Significance in Heritage Assets (Historic England, 2019);
 - Design Manual for Roads and Bridges LA106: Cultural heritage assessment, Revision 1 (Highways England, Transport Scotland, Welsh Government and Department for Infrastructure, 2020a);

Xlinks' Morocco-UK Power Project - Environmental Statement

- Principles of Cultural Heritage Impact Assessment in the UK (Institute of Environmental Management and Assessment (IEMA), Institute of Historic Building Conservation and CIfA, 2021);
- Standard for archaeological field evaluation (CIfA, 2023a); and
- Universal guidance for archaeological field evaluation (CIfA, 2023b).
- 2.2.26 Further information on these guidance documents is presented within Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES and also within Volume 2, Appendix 2.4: Settings Assessment of the ES.

2.3 Consultation and Engagement

Scoping

- 2.3.1 In January 2024, the Applicant submitted a Scoping Report to the Planning Inspectorate, which described the scope and methodology for the technical studies being undertaken to provide an assessment of any likely significant effects for the construction, operation and maintenance and decommissioning phases of the Proposed Development. It also described those topics or sub-topics which are proposed to be scoped out of the EIA process and provided justification as to why the Proposed Development would not have the potential to give rise to significant environmental effects in these areas.
- 2.3.2 Following consultation with the appropriate statutory bodies, the Planning Inspectorate (on behalf of the Secretary of State) provided a Scoping Opinion on 7 March 2024. Key issues raised during the scoping process specific to the historic environment are listed in **Table 2.4**, together with details of how these issues have been addressed within the ES.

Comment	How and where considered in the ES
Planning Inspectorate	
'Given that the operation/maintenance of the onshore elements is unlikely to require additional land take, the Inspectorate agrees that this matter is unlikely to give rise to significant effects. However, consideration should be given to the potential for changes to groundwater levels and/or heat output from buried cables to result in the deterioration of buried archaeological/geoarchaeological assets and how the risk of such impacts would be managed. Where significant effects are likely, this matter should be scoped into the ES.' ID 3.2.1	The cable trenches would be backfilled with the excavated material, which would not affect the current permeability of the subsurface deposit sequence, thus there would be no dewatering of organic deposits. During transmission of power, buried cables generate heat which dissipates to the surrounding ground. The heat loss from electrical cables has the potential to alter the environment and therefore, damage any waterlogged archaeological remains. Until the final engineering design and soil structure are known, it is not possible to determine the maximum heat loss and subsequent dissipation of heat. Regardless, any heat dissipation would be localised to the areas immediately surrounding the onshore cables and ducts. These same areas, including any sub-surface archaeological/ geoarchaeological remains, would have been disturbed during the installation of the buried cables during the construction phase. These remains, if present, will have been considered during the

Table 2.4: Summary of Scoping Responses

Xlinks' Morocco-UK Power Project - Environmental Statement

Comment	How and where considered in the ES
	construction phase and effects mitigated where possible (See section 2.10 of this ES chapter).
'The Inspectorate notes that unlike for the operation phase above, no justification is presented in the Scoping Report to explain why this matter is scoped out for decommissioning. The Inspectorate agrees that should loss of, or harm to, buried archaeological remains and deposits of geoarchaeological interest have occurred in the construction phase and no further loss or harm/disturbance occurs at the decommissioning stage, this can be scoped out of the impact assessment. However, in the absence of such confirmation, the ES should include an assessment of decommissioning effects, where likely significant effects could occur, or further evidence why likely significant effects would not arise.' ID 3.2.2	Effects arising from impacts on buried archaeological and geoarchaeological resources during decommissioning have been scoped out, as set out in section 2.5 . The Outline Decommissioning Strategy (document reference 7.17) sets out that onshore decommissioning plan(s) would be developed if decommissioning plan (s) would be developed in a timely manner in consultation with the relevant consultees and prior to commencement of decommissioning. It is currently considered that the decommissioning of the onshore elements of the Proposed Development will not require additional land take and is unlikely to damage or result in the permanent loss of buried archaeological and geoarchaeological resources. Any such resources would have been suitably examined during the construction phase. If this is not the case and additional land take is required for decommissioning, a suitable programme of archaeological work will be agreed with the relevant consultees as part of the onshore decommissioning plan.
'The Inspectorate agrees that likely significant effects on the settings of above ground heritage assets during operation and maintenance from the Proposed Development (excluding the converter stations) are unlikely and is content that this matter can be scoped out of further assessment.' ID 3.2.3	Noted - this has been scoped out of the assessment.
'The Design Manual for Roads and Bridges LA 106 was updated in 2020 and the National Planning Policy Framework was updated in 2023 (although the latter is correctly referenced at Paragraph 7.3.3 of the Scoping Report). The Applicant's attention is directed to the response of Historic England at Appendix 2 of this Opinion, which highlights other guidance and legislative documents which the Applicant should have regard to. The ES should be based on up to date and relevant guidance documents.' ID 3.2.4	The assessment has been undertaken with reference to the most up to date and relevant guidance documents, including the Design Manual for Roads and Bridges (2020) and the NPPF (2023). It has also been undertaken with reference to the current relevant guidance and legislative documents, including those highlighted by Historic England. A full list of legislation and guidance utilised during this assessment can be found in section 2.2 of this ES chapter and in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES.
 'The Scoping Report states that a study area of 5 km will be used to assess the effects on heritage assets resulting from the Converter Site. A 1 km study area has been set for impacts on heritage assets resulting from the cable corridor. The Zone of Theoretical Visibility (ZTV) has not yet been established and therefore it is not possible at this stage to understand if there may be any heritage assets located outside the respective 5 km and 1 km study areas which may be affected. Where significant effects on heritage assets beyond 5 km 	A ZTV has been established for the Converter Site. Designated heritage assets potentially affected by the Converter Site through development within their setting are listed in Table 2.12 and shown in Volume 2, Figure 2.3 of the ES, with further information presented in Volume 2, Appendix 2.4: Settings Assessment of the ES. Examination has also been made regarding potential designated heritage assets outwith the 5 km settings study area that could be affected by the Proposed Development – no such assets have been identified.

Comment	How and where considered in the ES
and 1 km respectively are identified, they should be assessed in the ES. Additionally, the study area must take into account any likely significant effects associated with temporary elements of the Proposed Development such as haul roads and utility diversions. See also the Inspectorate's comment at ID 2.1.5 above with respect to the proposed Alverdiscott Substation Connection Development, which is not referenced in this aspect chapter.' ID 3.2.5	The study areas identified in Volume 2, Figure 2.1 of the ES cover all elements of the Proposed Development with the potential for impacts on heritage assets. These include temporary elements such as utility diversions, haul roads and construction compounds. The Alverdiscott Substation Connection Development is not part of the Proposed Development, however it is addressed within section 2.13 of this ES chapter as part of the Cumulative Environmental Assessment.
'The ES should include a figure (similar to Figure 7.3.1) to show the location of the converter site in relation to the identified assets, in addition to the cable route. The study areas/ZoI should also be shown on this figure.' ID 3.2.6	The locations of designated heritage assets in relation to the Converter Site together with the 5 km study area and the ZTV are shown in Volume 2, Figure 2.3 of the ES. The location of designated heritage assets in relation to the 1 km study area for the cable route is shown in Volume 2, Figure 2.2 of the ES.
'The Applicant's attention is directed to the comments of Torridge District Council at Appendix 2 to this Opinion with regards to specific heritage assets that may be affected by the Proposed Development and should be considered in the assessment, where likely significant effects could occur.' ID 3.2.6	Comments from Torridge District Council have been addressed, and the assets they identified incorporated within this assessment. The site of the possible windmill has been investigated through geophysical survey and trial trenching.
'The ZTV developed for the Landscape and Visual Impact Assessment (LVIA) should be used to confirm the heritage assets that may experience visual impacts from the Proposed Development. The assessment should be supported by appropriate visualisations such as photomontages to help illustrate the likely impacts of the Proposed Development. Effort should be made to agree appropriate viewpoint locations and such visualisations with relevant consultation bodies, including Local Authorities and Historic England. Cross reference can be made to the LVIA ES assessment to avoid duplication.' ID 3.2.7	A ZTV has been prepared for the Converter Site and incorporated within this assessment. Designated heritage assets potentially affected by the Converter Site through development within their setting are listed in Table 2.12 and shown in Volume 2, Figure 2.3 of the ES. Detailed information is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES. The assessment has been supported through review of the visualisations presented within Volume 4, Appendix 2.5: Landscape Visualisations of the ES. An additional visualisation in relation to the Scheduled Monument at Higher Kingdon is presented in Volume 2, Appendix 2.4: Settings Assessment of the ES (see Figures 5 to 7).
[•] The Scoping Report states that the WSI would be developed prior to construction and that this would detail survey and mitigation requirements during the construction phase. Where possible, the WSI should be developed in conjunction with the Local Authority(ies)'s Historic Environment Team and Conservation Officer/archaeological advisor to ensure that local knowledge is captured.' ID 3.2.8	The Outline Onshore Written Scheme of Investigation (document reference 7.8) has been developed in consultation with the archaeological advisors to the Local Authority. A detailed Onshore Written Scheme of Investigation (WSI) will be submitted to the archaeological advisors to the Local Authority for their review and approval prior to the commencement of the works.
'The Inspectorate notes that the assessment methodology proposed for this aspect will follow the matrix approach described in Section 5 of the Scoping Report, with reference also to the assessment guidance documents listed at Paragraph 7.3.22, including the Design Manual for	In addition to the matrix-based approach set out in the Scoping Report, the assessment of individual impacts is also articulated in an accompanying narrative setting out the significance of any heritage assets affected and the level of impact and harm, and duly cognisant of the relevant Historic England

Comment	How and where considered in the ES
Roads and Bridges (DMRB) and Historic England guidance. The Applicant's attention is directed to the comments of Historic England at Appendix 2 to this Opinion with regards to the approach to recording significance of heritage assets (both designated and non-designated). The Applicant should make effort to agree the approach with Historic England and other relevant consultation bodies. In the event that the Applicant's approach to recording significance of an asset deviates from the advice it has received, the ES should explain why and provide justification based on relevant evidence and professional opinion.' ID 3.2.9	guidance. This information is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES. This approach has proved acceptable to Historic England in recent similar DCO applications.
⁽ Impacts on heritage assets from alterations to drainage patterns, changes to groundwater flows and levels, and from the movement of contaminants or pollutants should be assessed, where significant effects are likely to occur. This should consider the potential for hydrological effects from both drying out and inundation. Cross references to Chapter 7.5: Hydrology, Geology and Ground Conditions should be included.' ID 3.2.10	No areas of waterlogged ground have been identified within the Onshore Infrastructure Area therefore there is no potential for the Proposed Development to cause drying out of such ground with consequent effects on deposits of palaeoenvironmental importance. The Proposed Development would not lead to alterations in drainage patterns or groundwater flows. This is set out in Volume 2, Chapter 3: Hydrology and Flood Risk of the ES.
'The impact on human receptors and heritage assets arising from vibration generated during operation and maintenance The Scoping Report proposes to scope out impacts on human receptors and heritage assets arising from vibration on the basis that operation and maintenance of the Proposed Development is unlikely to generate high levels of vibration, and the plant strategy for the converter stations would incorporate vibration control as part of the design. The Inspectorate is content that vibration from the operation and maintenance of the onshore cable is unlikely to result in significant effects and agrees this matter can be scoped out of the ES. With regards to the converter stations, the Inspectorate is not in a position to agree to scope out this matter as the location of the converter stations are not yet determined and the distance to any human receptor or historic asset is unknown. The Scoping Report does not provide information on the anticipated vibration levels from the stations. Accordingly, the ES should include an assessment of these matters or the information demonstrating agreement with relevant stakeholders and the absence of likely significant effect. The ES should describe the potential sources of vibration arising from the operation of the converter stations, as well as any measures to control emissions and confirmation of how these are secured through the DCO or other mechanism.' Historic England	The assessment of predicted impacts on heritage assets during construction of the Converter Site includes consideration of vibration impacts. This is set out within Volume 2, Appendix 2.4: Settings Assessment of the ES.

Comment	How and where considered in the ES
'It will be essential that any tabular approach to heritage assessment using Design Manual for Roads and Bridges (ORMS) - which is often not ideal in relation to heritage - is complemented and supported by a reasoned, narrative discussion of the significance of any heritage assets affected and the level of impact and harm. This should preferably be informed by the approaches contained in Historic England guidance, and will be necessary to meet the policies within Chapter 5.9 (Historic Environment) of the Overarching National Policy Statement for Energy (EN-1).'	In addition to the matrix-based approach set out in the Scoping Report, the assessment of individual impacts is also articulated in an accompanying narrative setting out the significance of any heritage assets affected and the level of impact and harm, and duly cognisant of the relevant Historic England guidance. This information is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES. This approach has proved acceptable to Historic England in recent similar DCO applications.
 'In relation to heritage it will be important that the assessment of significance of effects using a tabular approach is adequately supported by careful analysis and commentary on the historic significance of any heritage assets that are affected and how development would impact on that significance, e.g. following Historic England guidance such as (both of which are listed in section 7.3 Historic Environment): Good Practice Advice in Planning 2: Managing Significance in Decision-Taking in the Historic Environment Good Practice Advice in Planning 3: The Setting of Heritage Assets Good Practice Advice in Planning (GPA) 12: Statements of Heritage Significance' 	As set out in section 2.6.10 of this ES chapter, the evaluation of receptor sensitivity, impact magnitude and significance of effect has been informed by professional judgement and is underpinned by narrative to explain the conclusions reached. A list of the relevant guidance documents, including those mentioned by Historic England, can be found in section 2.2 of this ES chapter and also in Volume 2, Appendix 2.1: Historic Environment Desk- Based Assessment of the ES.
 'Historic Environment - Legislative and Policy context - we suggest that the following are also reviewed: European Landscape Convention The Convention for the Protection of the Architectural Heritage of Europe The European Convention on the Protection of Archaeological Heritage.' 	Relevant legislative and guidance documents utilised in this assessment, including those identified by Historic England, are set out in section 2.2 of this ES chapter.
'Historic environment study area - how will this take account of potential impacts associated with utilities diversions and temporary haul roads as mentioned at 4.4.2 and 4.4.3?'	The study areas identified in section 2.4 and presented on Volume 2, Figure 2.1 of the ES cover all elements of the Proposed Development with the potential for impacts on heritage assets. These include temporary elements such as utility diversions, haul roads and construction compounds.
'Table 7.3.1 Baseline data sources - this should include consideration of any historic landscape and seascape characterisation relevant to the area.'	A brief summary of the baseline historic environment within the study area is provided in section 2.7 of this ES chapter; greater detail regarding historic landscape characterisation is presented within Volume 2, Appendix 2.1: Historic Environment Desk- Based Assessment of the ES. Historic seascape characterisation is addressed in Volume 3, Chapter 7: Marine Archaeology and Cultural Heritage of the ES.
[•] Table 7.3.4 Impacts proposed to be scoped out: While we accept that certain heritage impacts are likely to occur primarily as a result of construction activity, it will be important to accurately recognise	The assessment methodology (section 2.6 of this ES chapter) is sufficiently nuanced to allow for recognition of different impacts as a result of construction. The issue of time delay when dealing

Comment	How and where considered in the ES
whether these are permanent (as is likely to be the case with buried archaeology) or temporary impacts. While setting impacts as a result of vegetation loss during construction is usually treated as temporary, it should be noted that in the case of impacts associated with the loss of mature trees, mitigating planting could take many years to be fully effective.'	with planted mitigation is noted, and is reflected in the assessment set out in section 2.8 of this ES chapter.
'As far as Heritage Impact Assessment methodology, DMRB should not be seen as industry standard, as it is not appropriate for most cases and we would not expect it for this if it wasn't NCIP/EIA. For EIA there is a requirement for the differing headings and a tabular approach, but the terrestrial impacts here are so few we still expect a fully GPA3 and GPA12 (as referenced above) compliant reasoned narrative discussion of affected Scheduled Monuments. Identifying significance, impact and harm, based upon an approach that describes 'what is it and how is it affected'. We cannot overstate the need for this, as purely tabular assessments are limited in scope and poor in practice -and the Applicant should be made aware of this. We feel that DMRB tables are a tool and should be an appendix to the main discussion/HIA.'	In addition to the matrix-based approach set out in the Design Manual for Road and Bridges, the assessment of individual impacts is also articulated in an accompanying narrative setting out the significance of any heritage assets affected and the level of impact and harm, and duly cognisant of the relevant Historic England guidance. This information is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES. This approach has proved acceptable to Historic England in recent similar DCO application.
'Photographic visualisations should be 75-80mm single image where required for Scheduled Monuments.'	Any visualisations required to assist with the assessment of impacts on Scheduled Monuments will be prepared in accordance with the technical standards published by the Landscape Institute. The visualisation image prepared in relation to the Scheduled Monument at Higher Kingdon (see Figures 5 to 7 in Volume 2, Appendix 2.4: Settings Assessment of the ES) has been produced using a 50 mm single image.
'In terms of Scheduled Monuments, the Applicant needs to consider Hallsannery limekiln and the Roman site at Alverdiscott. This is equally important in relation to associated development and expansion. The Applicant should also be made aware that they will need to avoid these Scheduled Monuments as Scheduled Monument Consent is unlikely to be forthcoming.'	The assessment has considered these Scheduled Monuments. No physical impacts on the Scheduled Areas themselves are anticipated. The setting of a heritage asset makes a contribution to its heritage significance, and this has been assessed on an asset by asset basis. The results of this assessment are presented within Volume 2, Appendix 2.4: Settings Assessment of the ES.
'In addition, we recommend that the Project continue to engage with the Local Authority throughout the pre-application, application and examination process to ensure all works which have the potential to impact upon archaeology and the preservation of archaeological remains: such as road junction improvements, haul roads, temporary and permanent utilities or utility diversions, landscaping, drainage, ecological mitigation and offsetting etc. are adequately and appropriately managed.'	There has been extensive liaison with the archaeological advisors to the Local Authority throughout the course of the assessment.
[•] In order to consider the potential impact on the geoarchaeological and palaeoenvironmental significance of deposits, the heritage assessment should include a detailed geoarchaeological and palaeoenvironmental desk based assessment which considers recent palaeoenvironmental studies with	The research and fieldwork undertaken to date have not identified any deposits of geoarchaeological or palaeoenvironmental interest that could be impacted by the Proposed Development. The onshore High Voltage Direct Current (HVDC) Cables will be installed beneath the River Torridge using trenchless

Comment	How and where considered in the ES
in the Taw Torridge estuary, this should be supported by a review of current, previous and any intended geotechnical assessment or targeted geoarchaeological boreholes. With clear reference to applicable Historic England guidance.'	technology such as Horizontal Directional Drilling (HDD) which will avoid deposits of geoarchaeological or palaeoenvironmental interest in this area.
'With respect to measures to mitigate impacts to known and potential archaeological features and deposits within the intertidal, nearshore and punch- out area onshore, a full strategy to assess and survey this area needs to be discussed and agreed upon with Historic England and the Local Authority ahead of any PEIR submission.'	Works within the nearshore and intertidal areas fall within the offshore part of the Proposed Development and are addressed within Volume 3, Chapter 7: Marine Archaeology and Cultural Heritage of the ES. Works within the onshore landfall area are addressed within this chapter of the ES. Archaeological surveys in this area have been carried out in accordance with methodologies agreed with the archaeological advisors to the Local Authority.
North Devon Council	
'There are many designated heritage assets within the vicinity of the site boundary, part of which lies within North Devon Council's area. These include the highly graded listed buildings at Eastleigh, Crosspark farmhouse at Higher Lovacott, and various listed buildings in Horwood. The proposed PV farm may or may not affect the setting of these heritage assets, it would depend on the siting, this factor should be included.'	Designated heritage assets potentially affected by the Proposed Development are listed in Table 2.6 of this ES chapter and shown in Volume 2, Figure 2.2 of the ES. An asset by asset assessment of potential impacts arising from change within the settings of heritage assets is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES.
 'List of heritage assets in NDDC in proximity to the site: Tapeley Park (Registered Park and Garden) Grade II Church of St Michael Horwood Grade I The Courtledge Horwood Grade II Church Farm Cottage Horwood Grade II The Forge Horwood Grade I Lynton House Hoopers Cottage Horwood Grade II* Horwood house Grade II West Barton Farmhouse Grade II The Old Parsonage Grade II East Barton Grade II Stable block at east Barton Grade II Barns at east Barton Grade II Crosspark farmhouse Grade II Eastleigh Manor Grade II* Eastleigh Manor Grade II* Eastleigh Manor Grade II In Prines Eastleigh Grade II The Pines Eastleigh Grade II I Rock Cottage Eastleigh Grade II Little Pillhead Farmhouse (Webbery) Grade II. 	Designated heritage assets potentially affected by the Proposed Development are listed in Table 2.12 of this ES chapter and shown in Volume 2, Figure 2.2 of the ES. An asset by asset assessment of potential impacts arising from change within the settings of heritage assets is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES.

Comment	How and where considered in the ES
This should be presented in an appropriate Heritage Statement and it will be assessed against Policies ST15 and DM07 of the NDTLP, chapter 16 of the NPPF and the statutory duties in Section 66 and 72 of the Town and Country Planning (Listed Buildings and Conservation Areas) Act 1990.'	
Torridge District Council	
'The compound area at Abbotsham Cross covers the site of a windmill identified in a heritage appraisal on the Clovelly Road South site and this will need to be recorded before any site disturbance.'	Geophysical survey of the compound area at Abbotsham Cross has identified potential archaeological anomalies associated with the possible site of the windmill, forming a series of possible small enclosures (Volume 2, Appendix 2.2: Onshore Geophysical Survey Report of the ES, Site 31). These anomalies were investigated through trial trenching (Volume 2, Appendix 2.3: Preliminary Trial Trenching Report of the ES, Trenches 2 and 3) and Post-medieval pottery was recovered. A programme of further archaeological work will be agreed and incorporated within the Onshore WSI for Archaeology set out in Table 2.14 .
'The routing and compounds where the cable crosses the river has potential to impact on the view into Bideford, and the views from Landcross- Tennacott are visible from the A388. The level of visual harm to the views into Bideford will need to be assessed as part of a wider heritage assessment.'	Where relevant, views into Bideford are assessed within Volume 4, Chapter 2: Landscape, Seascape and Visual Resources of the ES.

Preliminary Environmental Information Report

- 2.3.3 The preliminary findings of the EIA process were published in the Preliminary Environmental Information Report (PEIR) on 16 May 2024. The PEIR was prepared to provide the basis for statutory public consultation under the Planning Act 2008. This included consultation with statutory bodies under section 42 of the Planning Act 2008.
- 2.3.4 A summary of the key items raised specific to the historic environment is presented in **Table 2.5**, together with how these issues have been considered in the production of this ES chapter.

Further Engagement

- 2.3.5 Throughout the EIA process, consultation and engagement (in addition to scoping and section 42 consultation) with interested parties specific to the historic environment has been undertaken.
- 2.3.6 A summary of the key items raised specific to the historic environment is presented in **Table 2.5**, together with how these issues have been considered in the production of this ES chapter.

Xlinks' Morocco-UK Power Project - Environmental Statement

Table 2.5: Summary of consultation relevant to this chapter

Date	Consultee and type of response	Issues raised	How and where considered in the ES
May 2022	Devon County Council Historic Environment Team	Initial advice regarding extent of the study area for acquisition of Historic Environment Record data.	The extent of the historic environment study area is shown in Volume 2, Figure 2.1 of the ES.
August 2022	Devon County Council Historic Environment Team	Comments on the draft WSI for archaeological geophysical survey.	The archaeological geophysical survey has been undertaken in accordance with the agreed WSI for archaeological geophysical survey. The results of the survey are set out in
September 2022	Devon County Council Historic Environment Team	Agreement on the final WSI for archaeological geophysical survey.	Volume 2, Appendix 2.2: Onshore Geophysical Survey Report of the ES.
November 2022	Devon County Council Historic Environment Team	Progress update regarding the archaeological geophysical survey.	
February 2023	Devon County Council Historic Environment Team	Meeting to discuss principles of the programme of trial trenching.	The archaeological trial trenching has been undertaken in accordance with the agreed WSI for archaeological trial trenching. The results of the trial trenching to date are set out in
March 2023	Devon County Council Historic Environment Team	Comments on the draft WSI for archaeological trial trenching.	Volume 2, Appendix 2.3: Preliminary Trial Trenching Report of the ES.
June 2023	Devon County Council Historic Environment Team	Site meetings to review progress on the programme of archaeological trial trenching.	
August 2023	Devon County Council Historic Environment Team	Site meetings to review progress on the programme of archaeological trial trenching.	
June 2024	Historic England (meeting 26 June 2024)	The change to the proposed location of the Converter Site.	The optioneering process regarding sites considered for the Converter Site is set out in Volume 1, Chapter 4: Need and Alternatives of the ES.
June 2024	Historic England (meeting 26 June 2024)	Design of the converter stations.	The parameters for the converter stations are identified in Volume 1, Chapter 3: Project Description of the ES and an indicative layout of the Converter Site has been provided as part of the DCO application in the Indicative Converter Site plan (document reference 2.6).

Date	Consultee and type of response	Issues raised	How and where considered in the ES
			The final designs will be prepared by the contractors in line with the Design Principles (document reference 7.4).
June 2024	Historic England (meeting 26 June 2024)	Visualisations regarding the likely impact of the converter stations on the significance of the Scheduled Monument at Higher Kingdon as a result of change within its setting.	Visualisations have been produced to show how the Converter Site could appear in views from this Scheduled Monument. These are presented within Volume 2, Appendix 2.4: Settings Assessment of the ES (see Figures 5 to 7).
June 2024	Historic England (meeting 26 June 2024)	Consultation regarding the WSI prepared for the trial trenching.	This WSI was agreed in advance with the Devon County Council Historic Environment Team (HET) in their capacity as archaeological advisor to the Local Authority. No consultation was undertaken with Historic England, as this is an issue usually dealt with by the Local Authority rather than Historic England.
June 2024	Historic England (meeting 26 June 2024)	Onshore Outline WSI (OWSI).	The Outline Onshore Written Scheme of Investigation has been submitted as part of the DCO application (document reference 7.8).
June 2024	Historic England (meeting 26 June 2024)	The potential requirement for additional overhead electricity cables.	The Proposed Development does not include any new overhead electricity cables, although there may need to be some minor realignment and/or undergrounding of existing overhead electricity cables. This is set out in Volume 1, Chapter 3: Project Description of the ES.
June 2024	Historic England (meeting 26 June 2024)	The potential for associated works to take place outside of the Order Limits for the Proposed Development.	The Order Limits include all land required for the construction, operation and maintenance, and decommissioning of the Proposed Development. This includes land required for temporary haul roads and utility diversions. This is set out in Volume 1, Chapter 3: Project Description of the ES.
June 2024	Historic England (meeting 26 June 2024)	The attribution of 'no more than regional significance' to the archaeological remains identified by the trial trenching within the Onshore Infrastructure Area.	The attribution of significance is set out in Volume 2, Appendix 2.1: Historic Environment Desk-based Assessment of the ES.
July 2024	Devon County Council Historic Environment Team	Agreement on the proposed trench locations for Phase 2 of the trial trenching.	Phase 2 of the trial trenching has not yet commenced.
July 2024	Historic England, Section 42 response	The Converter Site is proposed to be located to the immediate west of the existing	A detailed assessment of the likely harm to the significance of this Scheduled Monument is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES. This has been

Date	Consultee and type of response	Issues raised	How and where considered in the ES
		Alverdiscott Substation site. The Converter Site would contain two converter stations (known as Bipole 1 and Bipole 2) of approximately 26-30m height, and associated infrastructure, buildings and landscaping. This site is located approximately 160 m east of a Scheduled Monument: Iron Age enclosure and Roman marching camp (National Heritage List Entry No 1004558), an asset of the highest significance according to the National Planning Policy Framework. The elevated position of this strategic defensive site adds to its significance and we are therefore concerned about the potential for the proposed development to harm the significance of this asset as a result of development in its setting. The information available to assess this impact is currently limited.	informed in part by visualisations that show how the Converter Site could appear in views from this Scheduled Monument.
July 2024	Historic England, Section 42 response	As set out in the policy section below, the Applicant will need to show how the mitigation hierarchy has been applied to the proposed development, giving priority to the avoidance of impacts in the first instance. In decision making, great weight will be given to the conservation of heritage assets. We would therefore welcome more information about the rationale for selecting the Converter Site and for the locations of converter buildings and construction areas within this site.	The optioneering process regarding sites considered for the Converter Site is set out in Volume 1, Chapter 4: Need and Alternatives of the ES. The parameters for the Converter stations are identified in Volume 1, Chapter 3: Project Description of the ES and an indicative layout plan of the Converter Site is provided as part of the DCO application (document reference 2.6). The final designs will be prepared by the contractors in line with the Design Principles (document reference 7.4).
July 2024	Historic England, Section 42 response	We appreciate that the local topography comprising of winding sunken lanes bordered by hedgerows, valleys and combes means there is limited intervisibility between the scheduled site and the current substation. However, the proposed Converter Stations, which are closer than the existing sub- station to the Scheduled Monument, would each comprise of a solid mass of considerable scale and height, in stark contrast to their rural setting. A more detailed and robust assessment of their impacts on	A detailed assessment of the likely harm to the significance of this Scheduled Monument is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES. This has been informed in part by visualisations that show how the Converter Site could appear in views from this Scheduled Monument.

Date	Consultee and type of response	Issues raised	How and where considered in the ES
		the setting of the monument will therefore be needed as part of the Environmental Statement.	
July 2024	Historic England, Section 42 response	The Converter Site has an area of some 37 hectares and will include a range of associated works and infrastructure including cut and fill levelling, bunding, planting, security fencing, lighting, aerials etc. All of these elements have the potential to harm the setting of the Scheduled Monument. We would expect visualisations to illustrate and inform assessment of the level of harm to this and potentially other heritage assets. Zone of Theoretical Visibility modelling and site survey should be used to identify appropriate viewpoints and we would welcome further engagement on proposed viewpoints in relation to the Scheduled Monument.	All aspects of the Converter Site such as security fencing and lighting have been considered within the assessment presented in Volume 2, Appendix 2.4: Settings Assessment of the ES. Visualisations have been prepared which show how the Converter Site would appear in views from the Scheduled Monument at Higher Kingdon (see Figures 5 to 7 in Volume 2, Appendix 2.4: Settings Assessment of the ES). These visualisations have been provided to Historic England and were discussed at a meeting held on 23 September 2024. Other visualisations have been prepared as part of the Landscape and Visual Impact Assessment (Volume 4, Appendix 2.5: Landscape Visualisations) and reference has been made to these as appropriate within Volume 2, Appendix 2.4: Settings Assessment of the ES.
July 2024	Historic England, Section 42 response	We note that Volume 1, Chapter 3 Project Description (3.7.17) states that the structure and design of the converter station buildings, including the built form and external materials, will be developed alongside consultation and stakeholder feedback, and that a Design Code will be developed to support the application for development consent. We suggest that this should consider matters such as orientation, shape, height, roof lines, materials, colours and lighting (which is highlighted for inclusion at 3.7.38). We would also therefore welcome further engagement on design development for the Converter Site.	The parameters for the converter stations are identified in Volume 1, Chapter 3: Project Description of the ES and an indicative layout of the Converter Site is provided as part of the DCO application (document reference 2.6). The final designs will be prepared by the contractors in line with the Design Principles and approved by the local planning authority (document reference 7.4). Historic England will be consulted as part of the detailed design of the Converter Site.
July 2024	Historic England Section 42 response	In addition to this, we request that the Applicant considers whether there are opportunities for enhancement of, or contributions towards investigation, interpretation and recording of the Scheduled Monument, or other heritage assets, including assets on the Heritage at Risk register that are close to the proposed development.	

Date	Consultee and type of response	Issues raised	How and where considered in the ES
July 2024	Historic England Section 42 response	EN-1 paragraph 4.3.15 highlights the requirement that as part of their Environmental Statement, Applicants must provide information about the reasonable alternatives they have studied. This should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility. The consideration of alternatives needs to be proportionate.	The optioneering process regarding sites considered for the Converter Site is set out in Volume 1, Chapter 4: Need and Alternatives of the ES.
July 2024	Historic England Section 42 response	 EN-1 paragraph 4.7.2 states that applying good design to energy projects should produce sustainable infrastructure sensitive to place, including impacts on heritage. EN-1 also highlights the potential for impacts on both above and below ground heritage. 	Proposed mitigation on the setting of the Scheduled Monument is based on landscape mitigation (landscape bunding) which will be designed in consultation with Historic England. The requirement to consult Historic England is secured by Requirement 4 in Schedule 2 of the draft DCO (Document Ref. 3.1). The detailed design of the Converter Site will be developed in accordance with the requirements of the Design Principles Statement (Document reference 7.4).
July 2024	Historic England Section 42 response	Paragraph 5.9.6 confirms the principle that non- designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments should be considered subject to the policies for designated heritage assets. The absence of designation for such assets does not indicate that they are of lower significance or not of national importance.	The desk-based assessment and archaeological fieldwork undertaken for the Proposed Development has not identified any non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments.
July 2024	Historic England Section 42 response	Paragraph 5.9.9 confirms that in relation to heritage, the Environmental Statement should describe how the mitigation hierarchy has been applied. Paragraph 5.9.10 goes on to require the Applicant to describe the significance of any heritage assets affected by the proposed development, including any contribution made by their setting.	Section 2.7 of this ES chapter describes the significance of heritage assets affected by the Proposed Development, with additional information presented in Volume 2, Appendix 2.1: Historic Environment Desk-based Assessment of the ES and Volume 2, Appendix 2.4: Settings Assessment of the ES.

Date	Consultee and type of response	Issues raised	How and where considered in the ES
July 2024	Historic England Section 42 response	The policy statement describes the need for information to support assessment of impacts such as archaeological desk-based assessment, field evaluation and accurate visualisations to explain the impact on settings (5.9.11). Further studies may be needed in relation to matters such as noise, vibration and light (5.9.12). Applicants are also encouraged to explore measures to enhance the historic environment (5.9.13) or to better reveal significance (5.9.15).	The assessment of impacts and effects presented within Sections 2.10 to 2.12 of this ES chapter include considerations of impacts arising from noise, vibration and lighting.
July 2024	Historic England Section 42 response	Any loss or harm to a heritage asset's significance should be justified (5.9.17) and the Secretary of State may impose requirements on the DCO to ensure that work is carried out in accordance with a Written Scheme of Investigation (5.9.18); and to ensure that loss does not occur until the relevant part of the development has commenced (5.9.20) and that appropriate procedures are in place if as yet unknown heritage assets are discovered.	An Outline Onshore Written Scheme of Investigation has been prepared (document reference 7.8). DCO Schedule 2, Requirement 11 within the draft DCO (document reference 3.1) establishes that a detailed Onshore Written Scheme of Investigation will be prepared in accordance with the Outline Onshore Written Scheme of Investigation (document reference 7.8).
July 2024	Historic England Section 42 response	 Assessment of Effects We recognise that the development of detailed proposals is at an early stage and that there is no requirement for the PEIR to be a draft Environmental Statement. Nevertheless, we stress that the assessment of impacts on the historic environment will need to be greatly enhanced prior to submission, both in terms of the level of detail and precision. This will help to ensure that the impacts are properly understood and that appropriate mitigation can be secured through DCO requirements. 	The assessment of impacts and effects is presented within Sections 2.10 to 2.12 of this ES chapter, with additional detail provided in Volume 2, Appendix 2.4: Settings Assessment of the ES.
July 2024	Historic England Section 42 response	Volume 1 Appendix 3.1 Draft Mitigation Schedule Mitigation measures will need to be carefully designed to ensure that these proposals do not, in themselves, result in harm to the historic	The design of the mitigation measures includes consideration of the potential harm (to the historic environment) that may be caused by such measures.

Date	Consultee and type of response	Issues raised	How and where considered in the ES
		environment through the introduction of large, intrusive elements to the rural landscape.	
July 2024	Historic England Section 42 response	We note the commitment to mitigate impacts on a site of potential archaeological interest at Winscott Barton through Horizontal Directional Drilling. Expert archaeological advice should be sought on the methodology for this mitigation measure.	The design of the HDD crossing at Winscott Barton includes consideration of archaeological issues. The HDD entrance and exits pits and any compounds may be subject to further archaeological evaluation once the exact location of the pits and compounds have been identified by the construction contractor. The depth of the HDD beneath the area of archaeological interest will be set such that the drill remains lower than the base of the enclosure ditch as recorded in the trial trenches here.
July 2024	Historic England Section 42 response	 We also note the proposed mitigation measures for the Converter Site in relation to (i) cut and fill earthworks, (ii) landscape planting to de detailed in an Outline Landscape and Ecological Management Plan, and (iii) design of the converter buildings including a Design Code to be secured as a requirement of the DCO. In relation to the latter, architectural design is mentioned, along with materials, colours and finishes. We request that this is expanded to specifically require consideration of how impacts can be mitigated through siting, orientation, shape, height, roof lines and sensitive lighting design. We note that according to the Project Description (Volume 1, Chapter 3) operational outdoor lighting at the Converter Site boundary would normally be restricted to motion-activated security lighting and will be secured through the Design Code (3.7.37). 	A detailed assessment of the likely harm to the significance of this Scheduled Monument is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES. This has been informed in part by visualisations that show how the Converter Site could appear in views from this Scheduled Monument. The requirement to consult Historic England on elements of the design relevant to its function is secured by Requirement 4 in Schedule 2 of the draft DCO (Document Ref. 3.1). The detailed design of the Converter Site buildings and landscaping will be approved by Torridge District Council in accordance with Requirement 4 of the draft DCO (Document Ref. 3.1). The detailed design of the Converter Site will be developed in accordance with the requirements of the Design Principles Statement (Document Ref. 7.4) which includes requirements for the architectural design of the Converter Site.
July 2024	Historic England Section 42 response	We welcome the proposed mitigation measures in relation to the historic environment and would be pleased to have an opportunity to comment on the Outline Written Scheme of Investigation prior to submission. This document should cover preconstruction works (such as archaeological,	This is noted. The Outline Onshore WSI was provided to Historic England for comment, prior to submission of the DCO application. Amendments were included with the latest revision, submitted as part of the DCO application (document reference 7.8).

Date	Consultee and type of response	Issues raised	How and where considered in the ES
		geoenvironmental or habitat creation works) as well as the surveys and archaeological mitigation required during construction. It would also be helpful if Historic England had an opportunity to review and comment on the Outline Landscape and Ecology Management Plan prior to submission, bearing in mind that this will include details of mitigation planting at the Converter Site.	
July 2024	Historic England Section 42 response	Volume 1 Appendix 3.2 Outline Onshore Construction Environmental Management Plan We welcome the commitment within this document to the preparation of an Outline Onshore and Intertidal Written Scheme of Investigation. It will be important that this document sets out overarching methods and approaches for all archaeological works, including construction and pre-construction works and the mechanism for development, consultation, approval and monitoring of site-specific Written Schemes of Investigation. We look forward to receiving these at the earliest opportunity.	An Outline Onshore Written Scheme of Investigation has been submitted as part of the DCO application, document reference 7.8.
July 2024	Historic England Section 42 response	Volume 2 Chapter 2 Historic Environment We note that according to Table 2.1 no representative visualisations relating to heritage assets have been included in the PEIR. We acknowledge that the design is not yet finalised. It will be important that at submission and examination the DCO is supported by an ES containing visualisations that illustrate the impact on the Iron Age enclosure and Roman marching camp Scheduled Monument, including a visualisation from the monument itself. The significance of views across the landscape from the Scheduled monument including any intervisibility with other monuments should be considered.	A detailed assessment of the likely harm to the significance of this Scheduled Monument is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES. This has been informed in part by visualisations that show how the Converter Site could appear in views from this Scheduled Monument. Intervisibility with other monuments has been considered within the assessment.

Date	Consultee and type of response	Issues raised	How and where considered in the ES
July 2024	Historic England Section 42 response	We welcome confirmation within the methodology that reference has been made to Historic England guidance documents in drawing up this assessment.	Noted.
July 2024	Historic England Section 42 response	A methodology for site-specific surveys including trial trenching is set out in paragraphs $2.4.11 - 2.4.14$. Our detailed comments on the ongoing programme of trial trenching are provided below in relation to Volume 2 Appendix 2.3 Preliminary Trial Trenching Report. We would welcome further engagement with this work prior to submission.	The Applicant will engage with Historic England prior to the commencement of Phase 2 of the trial trenching surveys.
July 2024	Historic England Section 42 response	We welcome confirmation at 2.5.2 that according to the information available at this stage, no designated heritage assets would be directly physically impacted by the construction, operation and maintenance of the proposed development. However, owing to their considerable scale and	The assessment of impacts and effects is presented within sections 2.10 to 0 of this ES chapter. It confirms that no designated heritage assets would be directly physically impacted by the construction, operation and maintenance, or decommissioning of the Proposed Development. A detailed assessment of the likely harm to the significance of
		height, Figure 2.3 illustrates the large number if heritage assets within the Zone of Theoretical Visibility (ZTV) of the converter stations, and the close proximity and likely intervisibility with the Iron Age enclosure and Roman marching camp Scheduled Monument is a key concern.	the Iron Age enclosure and Roman marching camp Scheduled Monument is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES.
		In relation to the trial trenching findings (2.5.16 – 2.5.18), please refer to our comments below on Volume 2 Appendix 2.3 Preliminary Trial Trenching Report.	
		We note the summary of mitigation measures adopted as part of the proposed development within Section 2.7, Table 2.15. Our comments on mitigation measures have been provided above in response to Volume 1 Appendix 3.1 Draft Mitigation Schedule.	
July 2024	Historic England Section 42 response	Paragraph 2.8.18 suggests that following construction land will be reinstated to its former use leaving no noticeable trace above ground. However, as we stated in our Scoping Response, where impacts (including setting impacts) are associated	No Ancient Woodland or veteran trees will be removed for the construction, operation and maintenance, or decommissioning of the Proposed Development.

Date	Consultee and type of response	Issues raised	How and where considered in the ES
		with vegetation loss, and in particular loss of mature trees, mitigation in the form of new tree planting can take many years to be fully effective. We suggest that this is acknowledged here, and also at paragraph 2.8.40.	
July 2024	Historic England Section 42 response	We question the suggestion at 2.8.31 and subsequently at 2.9.7 that construction of the converter stations is potentially 'fully reversible'. If this installation is likely to be in place for 25+ years then this is a considerable length of time and we do not think that reversibility is likely to be an acceptable argument.	The assessment of impacts and effects considers factors such as magnitude, direction, frequency and reversibility, based on the guidance set out within Volume 1, Chapter 5: EIA Methodology of the ES. It should be noted that within the assessment presented within sections 2.10 to 0 of this ES chapter, the reversibility (or otherwise) of an impact does not affect the assessed magnitude of the impact or the consequent significance of the effect. It is an established legal principle that the concept of reversibility does not include any judgement regarding the likelihood of the reversal taking place – it is simply that the impact is capable of being reversed (<i>cf.</i> Buxton v Cambridge City Council [2021] EWHC 2028 (admin)).
July 2024	Historic England Section 42 response	Alternatively, clarification may be needed about what aspects of the converter station development are being assessed in association with its 'construction', and what aspects form part of its 'operation'.	The assessment of construction impacts presented within section 2.10 of this ES chapter considers all aspects of the construction within the Converter Site, including the mitigation measures, and covers issues such as construction noise and lighting. The assessment of operation and maintenance impacts presented within section 2.11 of this ES chapter considers all aspects of the operation of the converter stations, including operational noise and lighting, also the continuing growth of vegetation with regard to the mitigation measures.
July 2024	Historic England Section 42 response	We note that asset by asset assessments will be included in the Environmental Statement. We therefore wish to reiterate a key message from our Scoping Response, acknowledged within the PEIR, that it will be important that the tabular approach to assessing heritage impacts is supported by a reasoned, narrative discussion of the significance of heritage assets and the level of impact and harm.	The assessment of impacts and effects is presented within sections 2.10 to 0 of this ES chapter, with additional detail provided in Volume 2, Appendix 2.4: Settings Assessment of the ES.

Date	Consultee and type of response	Issues raised	How and where considered in the ES
July 2024	Historic England Section 42 response	We also query the suggestion at 2.8.41 and 2.9.10 that impacts are of local spatial extent, and suggest that the findings of the settings study and further visualisations will be needed to establish this.	This text has been amended within the assessment of impacts and effects presented within sections 2.10 to 0 of this ES chapter.
July 2024	Historic England Section 42 response	Paragraphs 2.8.33, 2.8.36 and 2.9.12 refer to further detailed design work to consider not just the design of the converter stations themselves but also their location within the site, the lighting design and landscaping including earth bunds and planting. Should the current proposed site be confirmed as the preferred option, we would welcome further engagement on these matters with the aim of avoiding or reducing impacts on designated heritage assets arising from changes within their settings.	Proposed mitigation on the setting of the Scheduled Monument is largely based on landscape mitigation (landscape bunding) which will be designed in consultation with Historic England. The requirement to consult Historic England on elements of the design relevant to its function is secured by Requirement 4 in Schedule 2 of the draft DCO (Document Ref. 3.1). The detailed design of the Converter Site buildings and landscaping will be approved by Torridge District Council in accordance with Requirement 4 of the draft DCO (Document Ref. 3.1). The detailed design of the Converter Site will be developed in accordance with the requirements of the Design Principles Statement (Document Ref. 7.4) which includes requirements for the architectural design of the Converter Site.
July 2024	Historic England Section 42 response	We again question the suggestion at 2.8.34 and 2.9.10 that impacts would generally be reversible and suggest that this aspect of the assessment is reconsidered.	See above with regard to the Applicant's position on reversibility.
July 2024	Historic England Section 42 response	We note that the significance of effect of both the construction and operation of the converter stations, substation and grid connection at Alverdiscott are at PEIR stage assessed as up to major adverse, and significant in EIA terms. It will be particularly important that this is further supported by the settings study, visualisations and a reasoned narrative discussion.	The assessment of impacts and effects is presented within sections 2.10 to 0 of this ES chapter, with additional detail provided in Volume 2, Appendix 2.4: Settings Assessment of the ES. Visualisations have been produced to support this assessment - these are presented within Volume 4, Appendix 2.5: Landscape Visualisations. A further visualisation in relation to the Scheduled Monument at Higher Kingdon is provided in Figures 5 to 7 in Volume 2, Appendix 2.4: Settings Assessment of the ES.
July 2024	Historic England Section 42 response	Volume 2 Appendix 2.3 Preliminary Trial Trenching Report The report has identified areas of archaeological interest, which includes Early Neolithic activity and possible Iron Age/Roman human cremations. The	The second phase of trial trenching has been designed to examine areas of land within the Order Limits that were not examined during the first phase, either because no geophysical survey data were available ahead of the first phase, or because access for the trial trenching was not possible. There is no

Date	Consultee and type of response	Issues raised	How and where considered in the ES
		intended purpose of this evaluation and the subsequent preliminary report is to best inform the client on the archaeological potential and significance of the development area to best inform on future mitigation strategies. As the trial trenching investigation is adopting a two staged approach, the results from the first phase could be used to advise trench placement for the second phase of work.	intention to undertake additional trial trenching ahead of (DCO) consent in any area where such work was undertaken during the first phase. This is due to the need to retain good relations with landowners and tenant farmers who do not wish to see repeated surveys across their land. The information obtained during the first phase of trial trenching, along with the results of the geophysical survey, is sufficiently robust for the preparation of future mitigation strategies in areas covered by that first phase.
July 2024	Historic England Section 42 response	While we weren't offered the opportunity to comment on the Written Scheme of Investigation for trial trench evaluation, given that further evaluation is required it would be useful if we were able to provide comment now as this will reduce potential risks to the project and increase our evidence base for decision making as the scheme develops.	The Applicant will engage with Historic England prior to the commencement of Phase 2 of the trial trenching surveys.
July 2024	Historic England Section 42 response	There are a number of discrete features characterised as either pits or postholes and linear ditches left unexcavated without explanation. It is often not possible to confidently assess the archaeological potential of a feature without some level of excavation. We would recommend a more inclusive excavation strategy in the next phase of work.	Noted. The decisions taken during fieldwork regarding which features should be examined were taken in consultation with the Devon County Council HET in their capacity as archaeological advisor to the Local Authority.
July 2024	Historic England Section 42 response	Without investigation and assessment, mitigation should treat the possible cremations in Trench 79 as human and a specific cremation excavation strategy that adheres to the relevant guidance should be included and implemented within the Outline Written Scheme of Investigation to accompany the DCO.	This issue is addressed within the Outline Onshore Written Scheme of Investigation (document reference 7.8).

Date	Consultee and type of response	Issues raised	How and where considered in the ES
July 2024	Historic England Section 42 response	DCMS Policy Statement: Scheduled Monuments and nationally important but non-scheduled monuments (2013) sets out the policy for nationally significant sites. By default, sites that comprise only groups of objects (artefacts or ecofacts) or other deposits that provide evidence of human activity during early prehistory cannot usually be designated as Scheduled Monuments because they do not satisfy the 1979 Act's definition of a monument, despite potentially being of high significance and national or international importance.	Noted – this issue is additionally addressed through footnote 72 of the NPPF.
July 2024	Historic England Section 42 response	Given the significance of the early Neolithic features and the potential for finds to have high archaeological potential we would expect a more refined excavation and environmental sampling strategy for mitigation, as well as potentially identifying areas for further exploration that would otherwise be missed, such as the palaeoenvironmental and finds that may be contained within the undated features.	Noted – this is addressed within the Outline Onshore Written Scheme of Investigation (document reference 7.8).
July 2024	Historic England Section 42 response	Provision should be made in the Outline Written Scheme of Investigation for the potential to process a more representative array of environmental samples if needed to answer the aims and objectives of the project. It may be useful to consider the principles of the CIfA selection toolkit, which presents a useful resource for considering selection and retention in consultation with appointed specialists. In addition, it is noted that all of the samples fall below the recommended volumes for samples as set out in the Historic England	Noted – this is addressed within the Outline Onshore Written Scheme of Investigation (document reference 7.8).

Date	Consultee and type of response	Issues raised	How and where considered in the ES
		guidelines. Though it can be appreciated that not all of these features may have produced a 40-60 litre sediment sample, there are a number of cases where it would be recommended.	
July 2024	Historic England Section 42 response	We agree with the recommendations at paragraph 7.20 that if further archaeological work takes place along the proposed development route that any of the remaining unprocessed evaluation samples that fall within the mitigation areas could be considered for processing. It would be beneficial to process a proportion of samples from securely dated features, to allow for better characterisation of the deposit in order to inform future research questions and on whether further analysis is required (e.g. charred plant remains). Assessing the palaeoenvironmental potential of a greater number of undated features may contribute towards their characterisation and recommendation for scientific dating.	Noted – this is addressed within the Outline Onshore Written Scheme of Investigation (document reference 7.8).
July 2024	Devon County Council Section 42 response		
July 2024	Devon County Council Section 42 response	In addition and in alignment with Paragraph 211 of the NPPF, as well as detailing the fieldwork and post-excavation tasks to be undertaken, the WSI shall also include details of community engagement	Noted – this is addressed within the Outline Onshore Written Scheme of Investigation (document reference 7.8).

Date	Consultee and type of response	Issues raised	How and where considered in the ES
		with regard to the historic environment and the results of any archaeological investigations undertaken in order to advance the understanding of the significance of any heritage assets. This should include consideration of public participation in fieldwork and public engagement the form of open- days, school and interested party site visits, on-line information and talks to local interest groups.	
July 2024	Torridge District Council Section 42 response	The information supplied does not give detailed information in relation to the appearance and scale of the transformer building nor the levels for the building. The Route of the cable corridor is not shown in any more detail than the initial enquiry and as such the assessment of visual impact on the setting of heritage assets along this corridor cannot be fully quantified at this stage.	The assessment of impacts and effects is presented within sections 2.10 to 0 of this ES chapter, with additional detail provided in Volume 2, Appendix 2.4: Settings Assessment of the ES. Visualisations have been produced to support this assessment - these are presented within Volume 4, Appendix 2.5: Landscape Visualisations. A further visualisation in relation to the Scheduled Monument at Higher Kingdon is provided in Figure 5 to 7 in Volume 2, Appendix 2.4: Settings Assessment of the ES.
July 2024	Torridge District Council Section 42 response	Page 24 para 2.5.7 Archaeology and history - will this be expanded and enhanced	The detailed appraisal of the archaeological and historic baseline within the defined study area is presented within Volume 2, Appendix 2.1: Historic Environment Desk-based Assessment of the ES and summarised within section 2.7 of this ES chapter.
July 2024	Torridge District Council Section 42 response	Page 27- Para 2.14 Maximum design scenario table. This is where the onshore HVDC cable link boxes and joint bays are noted. The table is noted but details of the link boxes and joint bays are requested.	These details are set out within Volume 1, Chapter 3: Project Description of the ES.
July 2024	Torridge District Council Section 42 response	Construction compounds – Locations and duration?	These details are set out within Volume 1, Chapter 3: Project Description of the ES.
July 2024	Torridge District Council Section 42 response	Page 33-Future Monitoring para 2.8.18 – once construction work has been completed there would be no impacts (visual and/or noise) in respect of the settings of the designated heritage assets – can this be stated definitively at this stage?	This would be the case for all designated heritage assets other than those impacted by the development at the Converter Site. This issue is addressed within sections 2.10 to 0 of this ES chapter, with additional detail provided in Volume 2, Appendix 2.4: Settings Assessment of the ES.

Date	Consultee and type of response	Issues raised	How and where considered in the ES
July 2024	Torridge District Council Section 42 response	Para 2.8.21 – Impacts on designated heritage assets as a result of change within their settings during construction would be indirect (non -physical) and short term. – need short term to be quantified in relation to construction and maintenance.	This issue is addressed within sections 2.10 to 0 of this ES chapter, with additional detail provided in Volume 2, Appendix 2.4: Settings Assessment of the ES. Impacts occurring during the operation and maintenance phase would be long-term.
July 2024	Torridge District Council Section 42 response	Para 2.8.28 – the need for lighting on the development for security could impact on the wider landscape.	The potential impacts of construction lighting and operational lighting on the character of the historic landscape have been included within the assessments presented in sections 2.10 to 0 of this ES chapter.
July 2024	Torridge District Council Section 42 response	Page 36 – para 2.8.38 Impact on the Character of the Historic Landscape. This takes into account hedgebanks but not the cable corridor in terms of use or restrictions in previous farming activity.	The impacts of the change in land-use within the cable corridor during construction are included within the assessment presented in section 2.10 of this ES chapter.
July 2024	Torridge District Council Section 42 response	Page 49-50 Table 2.17 Summary of potential environmental effects. – Noted but is the historic landscape really a low sensitivity of receptor especially during the construction phase?	Yes – the attributions of sensitivity/value are set out in Table 2.8 of this ES chapter. These attributions apply unchanged for all stages of the Proposed Development – construction, operation and maintenance, and decommissioning.
October 2024	Devon County Council	Comments regarding the draft Outline Onshore Written Scheme of Investigation.	The comments were reviewed and appropriate changes were made within the Outline Onshore Written Scheme of Investigation (document reference 7.8).
October 2024	Historic England	Comments regarding the draft Outline Onshore Written Scheme of Investigation.	The comments were reviewed and appropriate changes were made within the Outline Onshore Written Scheme of Investigation (document reference 7.8).

2.4 Study Area

- 2.4.1 The historic environment study area is made up of all land within the following.
 - The 5 km settings study area a circle with a radius of 5 km centred on the Converter Site (for all categories of designated heritage assets). This enables the identification of designated heritage assets whose settings may change following the construction of the converter stations.
 - The 1 km settings study area a zone extending for 1 km from the edge of the Onshore Infrastructure Area (excluding the Abnormal Indivisible Loads (AIL) route works) for all categories of designated heritage assets. This enables the identification of designated heritage assets whose settings may change during construction of the Proposed Development. It is limited to 1 km as there would be no above ground visible infrastructure in place following construction, therefore any impacts would only occur during the construction phase.
 - The 500 m historic environment study area a buffer zone extending for 500 m from the edge of the Onshore Infrastructure Area (excluding the AIL routes) for non-designated heritage assets including buried archaeological remains. This enables the identification of the general potential for buried archaeological remains and, deposits of geoarchaeological and palaeoenvironmental interest to be present within the Onshore Infrastructure Area. It also enables the identification of other non-designated heritage assets such as locally listed buildings within this defined study area.
- 2.4.2 These study areas have been agreed through the Scoping process and are identified on Figures 2.1 2.3 (see Volume 2, Figures of the ES).
- 2.4.3 The proposed minor works to the AIL routes incorporated within the Order Limits have been scoped out of assessment within this chapter of the ES. This is due to construction proposals associated with the AIL routes being limited to minor works to the existing carriageway and, as such, will not generate any impacts to adjacent heritage assets. As a result of the AIL routes being scoped out of assessment, the historic environment study areas will focus on those elements of the Proposed Development listed above, and will not incorporate the AIL routes.

2.5 Scope of the Assessment

- 2.5.1 The scope of this ES has been developed in consultation with relevant statutory and non-statutory consultees as detailed in **Table 2.4** and **Table 2.5**. This includes consultation undertaken specifically with statutory bodies as well as through the defined consultation process.
- 2.5.2 Taking into account the scoping and consultation process, **Table 2.6** summarises the impacts considered as part of this assessment.

Activity	Impacts scoped into the assessment
Construction Phase	
Construction within the Onshore Infrastructure Area.	Impacts resulting in damage to or permanent loss of buried archaeological and geoarchaeological resources.
	Impacts resulting in changes within the settings of designated heritage assets.

Table 2.6: Impacts considered within this assessment

Xlinks' Morocco-UK Power Project - Environmental Statement

Activity	Impacts scoped into the assessment
	Impacts resulting in changes to the character of the historic landscape.
Operation and Maintenance	
Operation and maintenance of the converter stations	Impacts resulting in changes within the settings of designated heritage assets.
	Impacts resulting in changes to the character of the historic landscape.
Operation and maintenance of buried cables, including vegetation clearance and planting restrictions imposed by any cabling easements.	Impacts resulting in changes to the character of the historic landscape.
Decommissioning Phase	
Decommissioning within the Onshore Infrastructure Area.	Impacts resulting in changes within the settings of designated heritage assets.
	Impacts resulting in changes to the character of the historic landscape.

2.5.3 Impacts that are not likely to result in significant effects have been scoped out of the assessment. A summary of the impacts scoped out, together with justification for scoping them out and whether the approach has been agreed with key stakeholders through either scoping or consultation, is presented in **Table 2.7**.

Table 2.7: Impacts scoped out of the assessment

Impact	Justification			
Operation and Maintenance				
Impacts resulting in damage to or permanent loss of buried archaeological and geoarchaeological resources, other than a requirement to consider changes to groundwater levels and/or heat output from buried electrical cables.	Activities associated with the operation and maintenance of the onshore cables/landfall and associated infrastructure would not result in damage to or permanent loss of buried archaeological and geoarchaeological resources. This was agreed by the Planning Inspectorate in the Scoping Opinion (ID 3.2.1).			
Impacts resulting in changes within the settings of designated heritage assets (other than impacts resulting from the operation and maintenance of the converter stations.	Activities associated with the operation and maintenance of the onshore cables/landfall and associated infrastructure (other than the converter stations would not result in changes within the settings of designated heritage assets. This was agreed by the Planning Inspectorate in the Scoping Opinion (ID 3.2.3).			
Decommissioning Phase				
Impacts on buried archaeological and geoarchaeological resources during decommissioning.	The Outline Decommissioning Strategy (document reference 7.17) sets out that onshore decommissioning plan(s) would be developed if decommissioning is required. An onshore decommissioning plan would be developed in a timely manner in consultation with the relevant consultees and prior to commencement of decommissioning. It is currently considered that the decommissioning of the onshore elements of the Proposed Development will not require additional land take and is unlikely to damage or result in the permanent loss of buried archaeological and geoarchaeological resources. If this is not the case a suitable programme of archaeological work will be agreed with the relevant consultees as part of the Onshore Decommissioning Plan. This was agreed by the Planning Inspectorate in the Scoping Opinion (ID 3.2.2).			

2.6 Methodology

Methodology for Baseline Studies

Desk Studies

2.6.1 A brief summary of the baseline historic environment within the study area is provided in **section 2.7** of this chapter. More detailed information on the baseline historic environment within the study area is presented within Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES.

Site-Specific Surveys

- 2.6.2 A programme of archaeological geophysical survey has been undertaken within the Onshore Infrastructure Area. The survey programme has examined all of the land within the Onshore Infrastructure Area which is suitable for this type of survey, and within which access for the survey has been obtained. The geophysical survey methodology comprises magnetometry (fluxgate gradiometry). This methodology was agreed in advance with the HET at Devon County Council.
- 2.6.3 A summary of the results of the geophysical survey is presented within **section 2.7** of this ES chapter, with the full report provided in Volume 2, Appendix 2.2: Onshore Geophysical Survey Report of the ES.
- 2.6.4 A programme of archaeological trial trenching has been initiated within the Onshore Infrastructure Area. The programme of trial trenching is ongoing and will examine all land within the Onshore Infrastructure Area which is suitable for trial trenching, and within which access for the trial trenching can be obtained. The methodology for the programme of trial trenching has been agreed with the HET at Devon County Council.
- 2.6.5 A summary of the results of the programme of archaeological trial trenching undertaken thus far is presented within **section 2.7** of this ES chapter, with the full assessment provided in Volume 2, Appendix 2.3: Preliminary Trial Trenching Report of the ES.

Impact Assessment Methodology

Overview

2.6.6 The approach to determining the significance of effects is a two-stage process that involves defining the magnitude of the impact and the sensitivity/value of the receptor. This section describes the criteria applied in this chapter to assign values to the magnitude of impacts and the sensitivity/value of the receptors. The terms used to define magnitude and sensitivity are based on relevant guidance, including the Design Manual for Roads and Bridges (DMRB) methodology (Highways England *et al.*, 2020b) where appropriate as described in further detail in Volume 1, Chapter 5: EIA Methodology of the ES.

Receptor Sensitivity/Value

2.6.7 The criteria for defining sensitivity in this chapter are outlined in **Table 2.8**.

Table 2.8: Sensitivity/value criteria

Sensitivity/value	Definition
Very High	Heritage assets of international importance. World Heritage Sites and the individual attributes that convey their Outstanding Universal Value. Areas associated with intangible heritage and areas with associations with particular innovations, scientific developments, movements or individuals of global importance. Assets that can contribute significantly to acknowledged international research objectives.
High	 Scheduled Monuments, Listed Buildings (Grade I, II*), Registered Historic Parks and Gardens (Grade I, II*), Registered Battlefields, Protected Wrecks, Protected Military Remains. Other listed buildings that can be shown to have exceptional qualities in their fabric or historical association not adequately reflected in the listing grade. Unscheduled sites and monuments of schedulable quality and/or importance including those discovered through the course of evaluation or mitigation. Archaeological assets that can contribute significantly to acknowledged national research objectives. Conservation Areas containing very important buildings (Grade I and II* Listed Buildings). Undesignated structures of clear national importance. Palaeogeographic features with a demonstrable high potential to include artefactual and/or palaeoenvironmental material, possibly as part of a prehistoric site or landscape. Undesignated sites of wrecked ships and aircraft that are demonstrably of equivalent archaeological importance to those already designated.
Medium	Conservation Areas, Grade II Listed Buildings and Grade II Registered Historic Parks and Gardens. Undesignated archaeological assets that can contribute to regional research objectives. Historic townscapes and landscapes with reasonable coherence, time depth and other critical factor(s). Unlisted assets that can be shown to have exceptional qualities or historic association. Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value. Averagely well-preserved historic landscapes with reasonable coherence, time- depth or other critical factors. Prehistoric deposits with moderate potential to contribute to an understanding of the palaeoenvironment. Undesignated wrecks of ships or aircraft that have moderate potential based on a formal assessment of their importance in terms of build, use, loss, survival and investigation.
Low	Heritage assets with importance to local interest groups or that contribute to local research objectives. Locally Listed Buildings and Sites of Importance within a district level. Robust undesignated assets compromised by poor preservation and/or poor contextual associations. Robust undesignated historic landscapes.

Sensitivity/value	Definition
	Historic landscapes with importance to local interest groups.
	Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.
	Prehistoric deposits with low potential to contribute to an understanding of the palaeoenvironment.
	Undesignated wrecks of ships or aircraft that have low potential based on a formal assessment of their importance in terms of build, use, loss, survival and investigation.
Negligible	Assets with little or no archaeological or historical interest due to poor preservation or survival.
	Buildings of little or no architectural or historic note; buildings of an intrusive character.
	Landscapes with little or no significant historical interest.
Unknown	The importance of the heritage asset cannot be ascertained from available evidence.

Magnitude of Impact

2.6.8 The criteria for defining magnitude in this chapter are outlined in **Table 2.9**.

Table 2.9:	Impact	magnitude	criteria
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Magnitude of impact		Definition
High Adverse		Change to most or all key elements of the heritage asset, or changes within the setting of the asset, such that the heritage significance of the asset is lost or substantially harmed.
	Beneficial	Change to most or all key elements of the heritage asset, or changes within the setting of the asset, such that the heritage significance of the asset is substantially enhanced.
Medium	Adverse	Change to elements of the heritage asset, or changes within the setting of the asset, such that the heritage significance of the asset is clearly harmed.
	Beneficial	Change to elements of the heritage asset, or changes within the setting of the asset, such that the heritage significance of the asset is clearly enhanced.
Low	Adverse	Change to elements of the heritage asset, or changes within the setting of the asset, such that the heritage significance of the asset is slightly harmed.
	Beneficial	Change to elements of the heritage asset, or changes within the setting of the asset, such that the heritage significance of the asset is slightly enhanced.
Negligible	Adverse	Change to elements of the heritage asset, or changes within the setting of the asset, such that the heritage significance of the asset is barely affected.
	Beneficial	Change to elements of the heritage asset, or changes within the setting of the asset, such that the heritage significance of the asset is barely affected.
No change		No discernible changes to elements of the heritage asset, or within the setting of the asset.

Significance of Effect

2.6.9 The significance of the effect upon a heritage asset has been determined by taking into account the sensitivity/value of the receptor and the magnitude of the impact. The method employed for this assessment is presented in **Table 2.10**.

Where a range of significance levels is presented, the final assessment for each effect is based upon expert judgement.

- 2.6.10 In all cases, the evaluation of receptor sensitivity, impact magnitude and significance of effect has been informed by professional judgement and is underpinned by narrative to explain the conclusions reached.
- 2.6.11 For the purpose of this assessment, any effects with a significance level of minor or less are not considered to be significant in terms of the EIA Regulations.

Sensitivity of	Magnitude of Impact			
Receptor	Negligible	Low	Medium	High
Unknown	Unknown	Unknown	Unknown	Unknown
Negligible	Negligible	Negligible or Minor	Negligible or Minor	Minor
Low	Negligible or Minor	Negligible or Minor	Minor	Minor or Moderate
Medium	Negligible or Minor	Minor	Moderate	Moderate or Major
High	Minor	Minor or Moderate	Moderate or Major	Major
Very High	Minor	Moderate or Major	Major	Major

Table 2.10: Assessment Matrix

2.6.12 Where the magnitude of impact is 'no change', no effect would arise.

2.6.13 The definitions for significance of effect levels are described as follows.

- Major: These beneficial or adverse effects are considered to be very important considerations and are likely to be material in the decision-making process. These effects are generally, but not exclusively, associated with sites or features of international, national or regional importance that are likely to suffer a most damaging impact and loss of resource integrity. However, a major change in a site or feature of local importance may also enter this category. Effects upon human receptors may also be attributed this level of significance.
- Moderate: These beneficial or adverse effects have the potential to be important and may influence the key decision-making process. The cumulative effects of such factors may influence decision-making if they lead to an increase in the overall adverse or beneficial effect on a particular resource or receptor.
- Minor: These beneficial or adverse effects are generally, but not exclusively, raised as local factors. They are unlikely to be critical in the decision-making process but are important in enhancing the subsequent design of the project.
- Negligible: No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.
- No change: No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Assumptions and Limitations of the Assessment

2.6.14 All readily available data required for the assessment have been acquired, collated and critically examined. A number of methodologies have been utilised in order to gain as much information as possible, including walkover surveys, geophysical survey and trial trenching.

Xlinks' Morocco-UK Power Project - Environmental Statement

- 2.6.15 One key limitation is with regard to the presence, absence, extent, nature and heritage significance of buried archaeological remains within some parts of the Onshore Infrastructure Area, including the Converter Site. Although geophysical survey has been undertaken within these areas, further investigation by way of trial trenching has not yet been carried out. This trial trenching is planned to take place post-consent and pre-construction, as set out in the Outline Onshore Written Scheme of Investigation (document reference 7.8). All investigations will be carried out in accordance with written methodologies agreed in advance with appropriate stakeholders including the archaeological advisors to the local planning authority.
- 2.6.16 On this basis, no significant assumptions or limitations have therefore been identified in the preparation of this chapter with regard to historic environment that would prevent an assessment of the potential effects being made, other than with regard to buried archaeological remains within some parts of the Onshore Infrastructure Area, including the Converter Site. For the latter, a worst case assessment has been made, assuming that buried archaeological remains (potentially including remains of high sensitivity or value) are present at some locations.

2.7 Baseline Environment

Desk Study

2.7.1 Information on the historic environment baseline within the study area was collected through a detailed review of existing studies and datasets. These are summarised in **Table 2.11**.

Table 2.11: Summary of desk study sources used	
Titlo	Sourco

Title	Source
National Heritage List for England (NHLE)	Historic England
Devon HER	Devon County Council
ArchSearch database	Archaeological Data Service
Portable Antiquities Scheme (PAS)	Online database
British Geological Survey	Online database
Historic maps and documents	Devon Heritage Centre

Identification of Designated Heritage Assets

- 2.7.2 No designated heritage assets would be directly physically impacted by the construction, operation and maintenance, and decommissioning of the Proposed Development. Any impacts on the significance of designated heritage assets would arise from a change within the setting of the asset.
- 2.7.3 The locations of the designated heritage assets within the historic environment study area are shown in Figures 2.2 and 2.3 (see Volume 2, Figures).
- 2.7.4 A list of key designated heritage assets within the historic environment study area that could be affected by the construction, operation and maintenance, and decommissioning phases of the Proposed Development is set out in **Table 2.12**. All designated heritage assets within the 1 km settings study area for the Onshore HVDC Cable Corridor except Grade II listed buildings (as there are many of

these) have been allocated a project-specific Site Number. For the 5 km settings study area for the Converter Site, all designated heritage assets (except Grade II listed buildings as there are many of these) not also within the 1 km settings study area but within the Zone of Theoretical Visibility (ZTV) established for the Converter Site have been allocated a project-specific Site Number and have been identified in **Table 2.12** below and shown in Figure 2.2 and Figure 2.3 (Volume 2, Figures).

Site No.	NHLE No.	Name	Designation
1	1013671	Two bowl barrows south of Haycroft, Huntshaw	Scheduled Monument
2	1004558	Iron Age enclosure and Roman marching camp east of Higher Kingdon Barn	Scheduled Monument
3	1002640	Part of a cross dyke known as Goodborough Castle	Scheduled Monument
4	1105152	Church of St Swithun, Littleham	Grade I listed building
5	1325319	Church of St Michael, Horwood	Grade I listed building
6	1104408	Church of St Helen, Abbotsham	Grade II* listed building
7	1200933	Old Ford, New Road, Bideford	Grade II* listed building
8	1326528	Church of St Mary Magdalene, Huntshaw	Grade II* listed building
10	11707220	Church of All Saints, Alverdiscott	Grade II* listed building
11	1000704	Tapeley Park	Grade II* Registered Park and Garden
12	1002639	Kenwith Castle - 18 th century garden feature	Scheduled Monument
13	1004578	Hallsannery limekiln (near Landcross Bridge)	Scheduled Monument
14	1325320	Hoopers Cottage, Horwood	Grade II* listed building
15	1107574	Southcott Barton, Westleigh	Grade II* listed building
205	1105150	Church of Holy Trinity, Landcross	Grade II* listed building
214	1012445	Round barrow on Darracott Moor	Scheduled Monument

Table 2.12: Designated sites and relevant qualifying interests

- 2.7.5 In addition to the designated heritage assets identified above in **Table 2.12** there are also numerous Grade II listed buildings within the historic environment study area and within the ZTV established for the Converter Site.
- 2.7.6 Further information regarding the designated heritage assets within the historic environment study area is presented within Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment of the ES.

Archaeology and History

- 2.7.7 Within the historic environment study area, the earliest evidence for human activity derives from an extensive scatter of Prehistoric worked flints found during construction of the Cornborough Waste Water Treatment Works, just to the north of Abbotsham. The majority of the 1,785 artefacts recovered were dated to the Mesolithic period, although some Neolithic material is also thought to be present. Prehistoric worked flints have also been recovered from several other locations within the historic environment study area.
- 2.7.8 Features and sites of definite or likely Prehistoric date within the historic environment study area include Bronze Age round barrows and at least one ring

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ditch likely to represent the remains of another round barrow, several enclosures and also linear features associated with former field systems.

- 2.7.9 Some or all of the enclosures may have been occupied or otherwise used into the Roman period, whilst other monuments of this date within the historic environment study area include the marching camp referenced in **Table 2.12** above (Site 2) and also the remains of a possible tower (although this could also be the base of a Post-Medieval windmill.
- 2.7.10 The Domesday Survey of 1086 AD identified the presence of settlements at Abbotsham, Landcross, Webbery, Little Weare and Huxhill, with the latter four containing just seven households or fewer and therefore considered to be hamlets rather than villages. Abbotsham was named as '*Hama*' in the Survey; the current name being derived from its subsequent development as a foundation estate of Tavistock Abbey. The appearance of these settlements in the Survey suggests that they were very likely to have originated in the Early Medieval period, but no material definitely of that date has been found within the historic environment study area.
- 2.7.11 Other settlements which were established during the Medieval period include Winscott and Shamland, whilst numerous isolated farmsteads within the historic environment study area would have been developed at this time if not earlier. Field systems and enclosures have been identified which represent remnants of the land use during the Medieval period.
- 2.7.12 Activity in the Post-medieval and Modern periods included the expansion of some settlements and the establishment of additional farmsteads. Sites and features of these period within the historic environment study area also include chapels, smithies, mills, wells, limekilns, quarries and railways. A rifle range was established at Abbotsham whilst nearby was the short-lived Shebberton (Bideford) Racecourse.

Site-Specific Surveys

2.7.13 In order to inform the ES, site-specific surveys have been undertaken, as agreed with the appropriate stakeholders.

Geophysical Survey

- 2.7.14 An extensive geophysical survey which covers part of the Onshore Infrastructure Area was undertaken in 2011 in support of a previous planning application. Additional geophysical survey was undertaken in the period 2022 - 2024 across those parts of the Onshore Infrastructure Area that had not been previously surveyed. The report on the results of this additional survey work is presented in Volume 2, Appendix 2.2: Onshore Geophysical Survey Report of the ES.
- 2.7.15 The 2022 2024 geophysical survey recorded a number of magnetic anomalies of probable archaeological interest, including frequent ditches, pits, a round barrow, enclosures, a ring ditch, trackways and potential settlements. Some of the anomalies correspond with heritage assets that are detailed in the HER while others appear to be unknown prior to the geophysical survey. Numerous responses of uncertain origin have also been plotted which could be due to combinations of agricultural and natural processes. Corroborated and conjectural former field boundaries are visible along with evidence of remnant ridge and

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furrow earthworks that represent arable farming during the Medieval and early Post-medieval periods.

Trial Trenching

- 2.7.16 Following on from the examination of the results of the geophysical survey, a programme of archaeological trial trenching was initiated across much of the land within the Onshore Infrastructure Area. The results of the first phase of this additional survey work are described in Volume 2, Appendix 2.3: Preliminary Trial Trenching Report of the ES.
- 2.7.17 The programme of trial trenching confirmed that the identification of the presence of archaeological sites and features based on geophysical anomalies was largely correct, but that additional features were also present in some areas that had not been detected by the geophysical survey.
- 2.7.18 Evidence of Early Neolithic activity was found in one area within the Onshore Infrastructure Area, also a possible later Prehistoric roundhouse with three potential cremation burials which may be contemporary or could be Roman. A sub-square enclosure was examined; this appeared to be of Roman date. Most of the features identified during the trial trenching remain undated.

Future Baseline Conditions

- 2.7.19 Schedule 4, paragraph 3 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 require that 'an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge' is included within the ES. This section provides an outline of the likely future baseline conditions in the absence of the Proposed Development.
- 2.7.20 Future changes to the historic environment baseline could include additions to the list of designated heritage assets, e.g., additional designations of Scheduled Monuments, listed buildings etc. or amendments to the descriptions of the assets and the area covered by the current designation.
- 2.7.21 Other changes could occur as a result of further information being discovered regarding archaeological sites, possibly through the completion of the programme of archaeological trial trenching.
- 2.7.22 No significant change to the historic environment baseline in this area is anticipated to occur as a result of climate change. Drier weather in the summer months may lead to the discovery of as yet unknown archaeological sites that become visible as cropmarks or parchmarks. However, this could also lead to some drying out of deposits (within palaeochannels) which are currently waterlogged or damp and this may result in some loss of significance of these deposits in terms of palaeoenvironmental potential.

Key Receptors

2.7.23 **Table 2.13** identifies the receptors taken forward into the assessment.

Xlinks' Morocco-UK Power Project - Environmental Statement

Receptor	Description	Sensitivity/Value
Buried archaeological remains	Archaeological sites and features of any period.	Up to High
Deposits of geoarchaeological and palaeoenvironmental interest	Could include organic deposits such as peat which may be waterlogged.	Up to High
Designated heritage assets	Scheduled Monuments, listed buildings (Grades I, II* and II) and Registered Historic Parks and Gardens (Grade II*).	Up to High
Historic Landscape Character	Several Broad Historic Landscape Character Types.	Low

 Table 2.13: Key receptors taken forward to assessment

2.8 Mitigation Measures Adopted as Part of the Proposed Development

- 2.8.1 For the purposes of the EIA process, the term *'measures adopted as part of the Proposed Development'* is used to include the following types of mitigation measures (adapted from IEMA, 2016). These measures are set out in Volume 1, Appendix 3.1: Commitments Register of the ES.
 - Embedded mitigation. This includes the following:
 - Primary (inherent) mitigation measures included as part of the Proposed Development design. IEMA describes these as 'modifications to the location or design of the development made during the pre-application phase that are an inherent part of the project and do not require additional action to be taken'. This includes modifications arising through the iterative design process. These measures will be secured through the consent itself through the description of the project and the parameters secured in the DCO and/or marine licences. For example, a reduction in footprint or height.
 - Tertiary (inexorable) mitigation. IEMA describes these as 'actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislative requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects'. It may be helpful to secure such measures through a Construction Environmental Management Plan or similar.
 - Secondary (foreseeable) mitigation. IEMA describes these as 'actions that will require further activity in order to achieve the anticipated outcome'. These include measures required to reduce the significance of environmental effects (such as lighting limits) and may be secured through environmental management plans.
- 2.8.2 In addition, where relevant, measures have been identified that may result in enhancement of environmental conditions. Such measures are clearly identified within Volume 1, Appendix 3.1: Commitments Register of the ES. The measures relevant to this chapter are summarised in **Table 2.14**.

Xlinks' Morocco-UK Power Project - Environmental Statement

- 2.8.3 Embedded measures that will form part of the final design (and/or are established legislative requirements/good practice) have been taken into account as part of the initial assessment presented in **section 2.10** to **0** below (i.e., the initial determination of impact magnitude and significance of effects assumes implementation of these measures). This ensures that the measures to which the Applicant is committed are taken into account in the assessment of effects.
- 2.8.4 Where an assessment identifies likely significant adverse effects, further or secondary mitigation measures may be applied. These are measures that could further prevent, reduce and, where possible, offset these effects. They are defined by IEMA as actions that will require further activity in order to achieve the anticipated outcome and may be imposed as part of the planning consent, or through inclusion in the ES (referred to as secondary mitigation measures in IEMA, 2016). For further or secondary measures both pre-mitigation and residual effects are presented.

Table 2.14: Mitigation measures adop	pted as part of th	e Proposed Development

Commitment Number	Measure Adopted	How the Measure Will be Secured
Embedded Measu	ures	
ONS64	The onshore elements of the Proposed Development, including temporary land required for construction, have been designed to minimise land take and to avoid, where possible and as far as reasonably practicable, direct physical impacts on designated heritage assets and known buried archaeological sites and features.	This is secured through the DCO Schedule 1, Authorised Development.
ONS32	 An Outline Onshore Construction Environmental Management Plan (On-CEMP) has been prepared as part of the application for development consent (document reference 7.7). On- CEMP(s)) will be developed to align with the prepared Outline On-CEMP. The On-CEMP(s) will incorporate measures to ensure that any potential environmental impacts would be minimised during construction as far as reasonably practicable. The On-CEMP(s) will include measures to maintain and address the following topics: ecology and nature conservation (including protected species and invasive species); surface water and groundwater environment (including flood protection and control, drainage, and pollution prevention); transport and access; noise management measures; air quality and dust management; land use and recreation; landscape and visual; historic environment; climate change; waste management; site security; and health and safety. 	Implemented through the On-CEMP(s). On- CEMP(s) to be secured as DCO Schedule 2, Requirement 7 (Management plans).
ONS33	An Outline Onshore Construction Environmental Management Plan (On-CEMP) has been prepared as part of the application for development consent (document reference 7.7). On- CEMP(s)) will be developed to align with the prepared Outline On-CEMP. The On-CEMP(s) would include construction noise	Implemented through the On-CEMP(s). On- CEMP(s) to be secured via DCO Schedule 2,

Commitment Number	Measure Adopted	How the Measure Will be Secured
	and vibration limits and Best Practicable Means (as defined in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990) to mitigate disruption caused by construction noise and vibration associated with the Proposed Development as far as reasonably practicable.	Requirement 7 (Management plans)
ONS05	 An Outline Construction Traffic Management Plan (CTMP) has been submitted with the application for development consent (document reference 7.12). CTMP(s) will be developed in accordance with the Outline CTMP prior to commencement of construction and agreed with relevant stakeholders. The CTMP(s) will set out reasonably practicable measures that include: Managing the numbers and routing of HGVs during the construction phase; Managing the movement of construction worker traffic during the construction phase; Details of measures to manage the safe passage of HGV traffic via the local highway network; and Details of localised road improvements if and where these may be necessary to facilitate the safe use of the existing road network. 	This is secured via DCO Schedule 2, Requirement 8 (Construction Traffic Management Plan)
ONS04	An Outline Decommissioning Strategy has been submitted as part of the application for development consent (document reference 7.17), which details that onshore and offshore decommissioning plans will be prepared in accordance with the principles set out in the Outline Decommissioning Strategy, if decommissioning of the Proposed Development is required at the end of the Proposed Development's operational life. The onshore decommissioning plan(s) will be developed in consultation with the relevant authority and in line with the latest available guidance, legislation and any new technologies available at the time of the Proposed Development's decommissioning. The onshore decommissioning plan(s) will include an assessment of the need to remove above ground infrastructure and the decommissioning of below ground infrastructure and include details relevant to flood risk (e.g. maintenance/reinstatement of existing land drainage), pollution prevention and avoidance of ground disturbance. The onshore decommissioning plan(s) will also include provision for the protection (during decommissioning) of any significant archaeological remains within the Onshore Infrastructure Area which were identified and protected from harm during construction.	This is secured via DCO Schedule 2, Requirement 16 (Decommissioning Strategy)
Secondary (Furth		
ONS17	 An Outline Landscape and Ecology Management Plan (LEMP) has been prepared as part of the application for development consent (document reference 7.10). An LEMP(s) would be developed in accordance with the Outline LEMP. It would include as far as reasonably practicable the following: A series of pre-commencement ecological surveys, to understand conditions prior to construction. Requirements and management measures relating to ecology and conservation. 	This is secured via DCO Schedule 2, Requirement 6 (Implementation and Maintenance of landscaping)

Commitment	Measure Adopted	How the Measure
Number		Will be Secured
	• Methodologies required for the removal, reinstatement and enhancement of hedgerows and other habitats.	
	 Methods required to prevent disturbance to or to comply with protected species licensing 	
	 Details and role specifications for Ecological Clerks of Works, including duties, responsibilities and reporting structure. 	
	• Details regarding the use of native and locally appropriate plant species around the converter stations and in replacement hedgerows along the Onshore HVDC Cable Corridor.	
	 Identification of areas where it may be possible to achieve advance planting. Where practical, landscape mitigation planting will be established as early as reasonably practicable in the construction phase. 	
	• Details of proposed landscape planting at the Converter Site to assist with softening and screening the buildings.	
	Details of management and maintenance of planting scheme.	
ONS65	An Outline Onshore Written Scheme of Investigation (WSI) has been prepared and submitted with the application for development consent (document reference 7.8). One or more detailed Onshore WSIs will be developed in line with the Outline Onshore WSI. The detailed Onshore WSI(s) will detail the surveys and archaeological mitigation requirements in advance of and during construction.	This is secured via DCO Schedule 2, Requirement 11 (Archaeology)
ONS86	Construction site lighting would only operate when required and would be designed, positioned and directed to avoid unnecessary illumination of adjacent properties, sensitive ecological receptors and users of public footpaths as far as reasonably practicable. Construction site lighting will be designed in accordance with latest relevant available guidance and legislation and the details of the location, height, design and luminance of lighting to be used will be detailed within the Onshore Construction Environmental Management Plan(s) (On-CEMP(s)). The design of the construction site lighting will accord with the details arguided in the Outline On CEMP	This is secured via DCO Schedule 2, Requirement 7 (Management plans)
ONS87	details provided in the Outline On-CEMP. Operational lighting at the Converter Site would be designed in accordance with the Design Principles Statement (document reference 7.4), as well as the latest guidance and legislation. The details of the location, height, design and luminance of lighting to be used would be provided as part of the detailed design. The operational lighting would be designed to avoid illumination of areas beyond the operational site as far as reasonably	This is secured via DCO Schedule 2, Requirement 4 (Detailed design approval)
	practicable. The design would include:directional lighting to minimise overspill into the surrounding landscape.	
	• operational outdoor lighting at the Converter Site boundary normally set to motion-activated security lighting.	

2.9 Key Parameters for Assessment

Maximum Design Scenario

2.9.1 The maximum design scenarios identified in **Table 2.15** have been selected as those having the potential to result in the greatest effect on an identified receptor or receptor group. These scenarios have been selected from the information provided in Volume 1, Chapter 3: Project Description of the ES. Effects of greater adverse significance are not predicted to arise should any other development scenario, based on details within the Project Design Envelope (e.g. different infrastructure layout), to that assessed here be taken forward in the final design. Therefore, this comprises a conservative assessment of a worst case scenario.

Impact	Phase ^a		a	Maximum Design Scenario	Justification	
	С	0	D			
Loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest	~	×	×	 Construction phase: Converter Site Maximum area of the converter station platforms (m²): 130,000 Maximum number of converter stations: 2 Maximum height of converter buildings (m): 26 	The largest footprint and greatest number of buildings at the Converter Site, and the maximum duration of construction, represents the greatest potential for impacts during construction on buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental	
The impact of construction and decommissioning of the Proposed Development (except the converter stations and the Converter Site) on designated heritage assets as a result of change within their setting.	~	×	*	 Maximum height of converter buildings (m): 26 Maximum height of lightning protection for converter buildings (m): 30 Maximum permanent footprint of Converter Site (combined) including landscape bunding, planting and drainage (m²): 395,000 Maximum duration of construction at Converter Site (months): 72 Onshore HVDC Cable Corridor 	interest, the settings of heritage assets and on the character of the historic landscape. The largest footprint and greatest number and height of buildings at the Converter Site represents the greatest potential impact during operation and maintenance on designated heritage assets as a result of change within their setting and on the character of the historic landscape.	
The impact of construction, operation and maintenance and decommissioning of the converter stations and the Converter Site on designated heritage assets as a result of change within their setting.	~	~	•	 Maximum length of Onshore HVDC Cable Corridor (km): 14.5 Maximum width of Onshore HVDC Cable Corridor (m): 65 Maximum number of cable trenches within Onshore HVDC Cable Corridor: 2 Maximum width of cable trenches within Onshore HVDC Cable Corridor (m): 4.3 at surface, 1.6 at base Maximum depth of cable trenches within Onshore HVDC Cable Corridor (m): 1.4 	The greatest length and width of the Onshore HVDC Cable Corridor and the HVAC Cable Corridors during construction represents the greatest potential for impacts on buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest, the settings of heritage assets and on the character of the historic landscape.	

Table 2.15: Maximum design scenario considered for the assessment of impacts

Impact	Ph	ase	a	Maximum Design Scenario	Justification			
	С	0	D					
The impact of construction and decommissioning of the Proposed Development on the character of the historic landscape.	×	 Maximum number of joint bay Corridor: 34 Maximum width of joint bays Corridor (m): 5 Maximum length of joint bays Corridor (m): 20 Maximum depth of joint bays Corridor (m): 1.4 Maximum area of joint bays a 	 Corridor: 34 Maximum width of joint bays along Onshore HVDC Cable Corridor (m): 5 Maximum length of joint bays along Onshore HVDC Cable Corridor (m): 20 Maximum depth of joint bays along Onshore HVDC Cable Corridor (m): 1.4 Maximum area of joint bays along Onshore HVDC Cable Corridor (below ground) (m²): 100 	The greatest number, width and depth of the cable trenches within the Onshore HVDC Cable Corridor and HVAC Cable Corridors during construction represents the greatest potential for impacts on buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest. The greatest number, width and depth of the joint bays within the Onshore HVDC Cable Corridor during construction represents the greatest				
			 Maximum volume of material excavated per joint bay (per circuit) (m³): 140 Maximum number of link boxes along Onshore HVDC Cable Corridor: 34 	potential for impacts on buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest.				
				Maximum width of link boxes along Onshore HVDC Cable Corridor (m): 1.5	The greatest number, width and depth of the link boxes within the Onshore HVDC Cable Corridor during construction represents the greatest potential for impacts on buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest.			
				 Maximum length of link boxes along Onshore HVDC Cable Corridor (m): 1.5 Maximum depth of link boxes along Onshore HVDC Cable 				
				 Corridor (m): 1.4 Maximum area of link boxes along Onshore HVDC Cable Corridor (below ground) (m²): 2.25 	The greatest duration of construction of the onshore HVDC and HVAC Cables represents the			
					• Maximum volume of material excavated per link box joint bay (per circuit) (m ³): 3.15	greatest potential for impacts on the settings of heritage assets and on the on the character of		
								Maximum duration of construction of onshore HVDC cable corridor (months): 36
								HVAC Cables
				Maximum length of HVAC Cable Corridors (km): 1.2	represents the greatest potential for impacts on			
				• Maximum width of HVAC Cable Corridors (m): 65 (32.5 m width for each Bipole) (Each HVAC Bipole system would be connected to the corresponding converter station (Bipole 1 and Bipole 2) and routed separately (32.5 m width for each corridor) towards the Alverdiscott Substation Site)	buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest, the settings of heritage assets and on the on the character of the historic landscape.			

Impact	Phase ^a		Phase ^a		Phase ^a		Phase ^a		a	Maximum Design Scenario	Justification
	С	0	D								
				 Maximum number of cable trenches within HVAC Cable Corridors: 4 Maximum width of cable trenches within HVAC Cable Corridors (m): 4.9 at surface, 2.1 at base Maximum depth of cable trenches within HVAC Cable Corridors (m): 1.4 Maximum duration of construction of HVAC Cable Corridors (months): 6 months per bipole Compounds Maximum size of Converter Site compound including working and laydown area (but excluding permanent Converter Site footprint) (m²): 20,000 Maximum area of Gammaton Road construction compound (m²): 63,000 Maximum area of secondary construction compound (A39 road) (m²): 48,000 Maximum area of Landfall construction compound (m²): 10,000 Maximum number of HDD compounds along Onshore HVDC Cable Corridor: 11 Maximum duration of each HDD (months): 12 HDD Maximum number of HDD entry pits at Landfall: 4 	The greatest duration of the use of the construction compounds and HDD compounds represents the greatest potential for impacts on the settings of heritage assets and on the on the character of the historic landscape. The maximum areas and numbers of the HDD pits, and transition joint bays at Landfall represents the greatest potential for impacts on buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest, the settings of heritage assets and on the on the character of the historic landscape. The greatest duration of construction at Landfall represents the greatest potential for impacts on the settings of heritage assets and on the on the character of the historic landscape.						
				 Maximum area of HDD entry pits at Landfall (m²): 225 Maximum volume of HDD entry pits at Landfall (m³): 75 							
				Maximum width of HDD entry pits at Landfall (m): 5							
				Maximum length of HDD entry pits at Landfall (m): 5 Maximum depth of HDD entry pits at Landfall (m): 2							
				 Maximum depth of HDD entry pits at Landfall (m): 3 Maximum number of transition joint bays at Landfall: 2 							

Impact	Phase ^a			Phase ^a			Maximum Design Scenario	Justification
	С	0	D					
				• Maximum area of transition joint bays at Landfall (m ²): 750				
				 Maximum volume of transition joint bays at Landfall (m³): 1,875 				
				 Maximum width of transition joint bays (m): 15 				
				 Maximum length of transition joint bays (m): 50 				
				 Maximum depth of transition joint bays (m): 2.5 				
				 Maximum duration of work at Landfall (months): 24 (split over two phases, 18 months and 6 months with a gap in-between). Duration of Landfall compound would be 36 months. 				
				Operation and Maintenance phase				
				Maximum number of converter stations: 2				
				 Maximum height of converter buildings (m): 26 				
				 Maximum height of lighting protection for converter buildings (m): 30 				
				 Maximum permanent footprint of Converter Site (combined) including landscape bunding, planting and drainage (m²): 395,000 				
				Decommissioning phase				
				Decommissioning is likely to operate within the parameters identified for construction (i.e., any activities are likely to occur within construction working areas and to require no greater amount or duration of activity than assessed for construction).				

^a C=construction, O=operation and maintenance, D=decommissioning

2.10 Assessment of Construction Effects

- 2.10.1 The impacts of the construction of the Proposed Development have been assessed. The impacts arising from the construction phase of the Proposed Development are listed in **Table 2.15**, along with the maximum design scenario against which each impact has been assessed.
- 2.10.2 A description of the likely effect on receptors caused by each identified impact is given below.

Loss of, or Harm to, Buried Archaeological Remains and Deposits of Geoarchaeological and Palaeoenvironmental Interest

- 2.10.3 Construction activities within the Onshore Infrastructure Area may lead to direct physical impacts on buried archaeological remains and/or deposits of geoarchaeological and palaeoenvironmental interest.
- 2.10.4 The maximum design scenario is summarised in **Table 2.15** and includes Onshore HVDC Cable Corridor up to 14.5 km long and 65 m wide, HVAC Cable Corridors up to 1.2 km long and 65 m wide, and Converter Site footprint measuring up to 395,000 m².
- 2.10.5 These direct impacts could occur through the removal of overlying topsoil and subsoil, through excavation of trenches for cables, through bulk excavation for deeper works such as launch and reception pits where HDD is required, and through reprofiling of land within the Converter Site.

Sensitivity/value of the Receptor

- 2.10.6 Known archaeological sites and features within the defined study area around the Onshore Infrastructure Area include evidence for activity during the Mesolithic, Neolithic, Bronze Age, Iron Age, Roman, Medieval, Post-medieval and Modern periods.
- 2.10.7 Buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest could be of national importance, although no remains definitely of this level of significance have currently been identified within the Onshore Infrastructure Area. However, the potential discovery of features or deposits of national importance ahead of or during construction cannot be entirely ruled out.
- 2.10.8 Taking a precautionary approach, the sensitivity/value of the receptor is assessed as up to **high**.

Magnitude of Impact

2.10.9 Impacts on buried archaeological remains and/or deposits of geoarchaeological and palaeoenvironmental interest would usually be direct and permanent. Such impacts would occur due to the physical removal of all or part of the features or deposits of interest. If features or deposits of national importance are identified within the land required for the Proposed Development as a result of the ongoing

Xlinks' Morocco-UK Power Project - Environmental Statement

programme of archaeological trial trenching then the scheme design will aim to ensure avoidance or minimisation of impacts on such features or deposits wherever possible.

- 2.10.10 In some situations, impacts on deposits of geoarchaeological and palaeoenvironmental interest (and possibly on buried archaeological remains) will be indirect and potentially permanent. These impacts occur when construction activities affect the environmental properties of deposits of geoarchaeological and palaeoenvironmental interest adjacent to the areas of direct physical removal.
- 2.10.11 Where direct impacts on buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest cannot be avoided through scheme design, programmes of further investigation will be undertaken post consent ahead of and during construction. These will not reduce the overall magnitude of impacts or significance of effects, but will serve to offset such impacts and effects.
- 2.10.12 The impact is predicted to be of up to local spatial extent, permanent duration, and irreversible. It is predicted that the impact will almost exclusively affect the receptor directly. The magnitude is considered to be up to **medium adverse**.

Significance of the Effect

- 2.10.13 Overall, the sensitivity/value of the receptor is up to **high** and the magnitude of the impact is up to **medium adverse**. The effect will, therefore, be of up to **moderate** or **major adverse** significance, which is significant.
- 2.10.14 For the reasons discussed above, there is a level of uncertainty attached to this level of significance. This uncertainty has been addressed through the adoption of precautionary threshold.

Further (Secondary) Mitigation and Residual Effect

2.10.15 No further mitigation is proposed. As set out above (paragraph 2.10.11), programmes of further investigation will be undertaken post consent ahead of and during construction but these will not reduce the overall magnitude of impacts or significance of effects. The residual effect will, therefore, be of up to moderate or major adverse significance, which is significant.

Future Monitoring

2.10.16 No future monitoring is proposed.

The Impact of the Construction of the Proposed Development (Except the Converter Stations and the Converter Site) on Designated Heritage Assets as a Result of Change Within Their Setting

2.10.17 Construction activities are likely to take place within the settings of designated heritage assets. These activities could harm the heritage significance of such assets, principally through changes in visual aspects of the setting (including construction lighting) but also through changes to the noise environment and potentially through vibration impacts.

Xlinks' Morocco-UK Power Project - Environmental Statement

- 2.10.18 The visual impacts during construction would result from the presence of construction equipment and the establishment of a construction corridor measuring up to 65 m in width for the Onshore HVDC Cable Corridor and the HVAC Cable Corridors. In some locations there would also be construction compounds and HDD compounds. The maximum design scenario is summarised in **Table 2.15**. Noise and potentially vibration impacts would also result from the use of construction equipment.
- 2.10.19 Once construction work has been completed, there would no impacts (visual and/or noise) in respect of the settings of designated heritage assets. The land within the construction corridor and the compounds would be reinstated to its former use and all equipment removed, leaving no noticeable trace above ground. Accesses required for link boxes would be flush with the existing surface at each location.
- 2.10.20 The detailed assessment of impacts and effects arising from changes within the settings of designated heritage assets during construction is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES. **Table 2.16** presents the results of that assessment with regard to the likely impacts and effects resulting from the construction of the Proposed Development (except the converter stations and the Converter Site).

Table 2.16: Impact of the construction of the Proposed Development (except the converter stations and the Converter Site) on designated heritage asset

Asset name	NHLE number	Asset type	Sensitivity/ value	Magnitude of impact	Significance of effect
19th century lime kiln 365 m north north west of Landcross Bridge	1004578	Scheduled Monument	High	Negligible adverse	Minor adverse
Abbotsham Court, Tower House and East Wing	1104405	Grade II listed building	Medium	Negligible adverse	Minor adverse
Coombe	1333179	Grade II listed building	Medium	Negligible adverse	Negligible adverse
Barn c. 10 m west of Coombe	1170667	Grade II listed building	Medium	Negligible adverse	Negligible adverse
Cottage c. 15 m north north west of Coombe	1333180	Grade II listed building	Medium	Negligible adverse	Negligible adverse
Outbuilding c. 15 m north north east of Coombe	1104410	Grade II listed building	Medium	Negligible adverse	Negligible adverse
Shamland, outbuilding <i>c</i> . 20 m north east of house	1170681	Grade II listed building	Medium	Negligible adverse	Negligible adverse

The Impact of the Construction of the Converter Stations and the Converter Site on Designated Heritage Assets as a Result of Change Within Their Setting

- 2.10.21 Construction activities are likely to take place within the settings of designated heritage assets including Scheduled Monuments and listed buildings. These activities could harm the heritage significance of such assets, principally through changes in visual aspects of the setting (including construction lighting) but also through changes to the noise environment and potentially through vibration impacts.
- 2.10.22 The visual impacts would result from the presence of construction equipment, the works within the Converter Site (including earth-moving), and the establishment of construction compounds. The maximum design scenario is summarised in **Table 2.15**. Noise and potentially vibration impacts would also result from the use of construction equipment.
- 2.10.23 The detailed assessment of impacts and effects arising from changes within the settings of designated heritage assets during construction is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES. **Table 2.17** presents the results of that assessment with regard to the likely impacts and effects resulting from the construction of the converter stations and the Converter Site.

Asset name	NHLE number	Asset type	Sensitivity/ value	Magnitude of impact	Significance of effect
Two bowl barrows south of Haycroft	1013671	Scheduled Monument	High	Negligible adverse	Minor adverse
Round barrow on Darracott Moor	1012445	Scheduled Monument	High	Negligible adverse	Minor adverse
Iron Age defended settlement and Roman camp 125 m east of Higher Kingdon Barn	1004558	Scheduled Monument	High	Medium adverse	Moderate adverse
Tapeley Park	1000704	Grade II* Registered Park and Garden	High	Negligible adverse	Minor adverse
Church of St Mary Magdalene, Huntshaw	1326528	Grade II* listed building	High	Negligible adverse	Minor adverse
Church of All Saints, Alverdiscott	1170720	Grade II* listed building	High	Negligible adverse	Minor adverse
Haddacott Farmhouse and attached wall and barn	1105147	Grade II listed building	Medium	Negligible adverse	Negligible adverse
Barn c. 50 m east of West Webbery Farmhouse	1170742	Grade II listed building	Medium	Negligible adverse	Negligible adverse
Little Webbery	1104417	Grade II listed building	Medium	Low adverse	Minor adverse
Webbery Barton	1305951	Grade II listed building	Medium	Low adverse	Minor adverse

Table 2.17 Impact of the construction of the converter stations and the Converter Site on designated heritage assets

The Impact of the Construction of the Proposed Development on the Character of the Historic Landscape

2.10.24 Construction activities could change the character of the historic landscape within the study area. These activities could harm the heritage significance of the historic landscape, principally through changes in visual aspects such as the construction of the converter stations which represent the introduction of very modern elements, but also through temporary or permanent loss of elements of the historic landscape such as field boundaries. Some of these field boundaries may be 'Important hedgerows' as defined by the criteria identified in the Hedgerow Regulations 1997. The maximum design scenario is summarised in **Table 2.15**.

Sensitivity/value of the Receptor

- 2.10.25 There are no well-preserved historic landscapes within the study area. The sensitivity of the receptor is therefore considered to be **low**.
- 2.10.26 Impacts on the character of the historic landscape during construction would be direct (physical and non-physical) and medium term. The design of the Proposed Development would seek to minimise any loss of elements of the historic landscape, and field boundaries that are fully or partially removed during construction would be replaced. The exception to this would be within the Converter Site, where it may not be possible to replace any field boundaries removed during construction.
- 2.10.27 The impact is predicted to be of up to regional spatial extent, medium term duration, and generally reversible. It is predicted that the impact will affect the receptor directly and indirectly. The magnitude is therefore, considered to be **low adverse**.

Significance of the Effect

2.10.28 Overall, the sensitivity/value of the receptor is **low** and the magnitude of the impact is **low adverse**. The effect will, therefore, be of up to **minor adverse** significance, which is not significant.

Further (Secondary) Mitigation and Residual Effect

2.10.29 No further mitigation is proposed. The residual effect will, therefore, be of up to **minor adverse** significance, which is not significant.

Future Monitoring

2.10.30 No future monitoring is proposed.

Xlinks' Morocco-UK Power Project - Environmental Statement

2.11 Assessment of Operation and Maintenance Effects

- 2.11.1 The impacts of the operation and maintenance phase of the Proposed Development have been assessed. The impacts arising from the operation and maintenance phase of the Proposed Development are listed in **Table 2.15**, along with the maximum design scenario against which each impact has been assessed.
- 2.11.2 A description of the likely effect on receptors caused by each identified impact is given below.

The Impact of the Operation and Maintenance of the Converter Stations and the Converter Site on Designated Heritage Assets as a Result of Change Within Their Setting

- 2.11.3 The converter stations and the Converter Site are located within the settings of designated heritage assets including Scheduled Monuments and listed buildings. The introduction of these structures within the settings could harm the heritage significance of such assets, principally through changes in visual aspects of the setting including the presence of permanent lighting.
- 2.11.4 The visual impacts would result from the presence of the converter station buildings and the associated landscape mitigation measures within the setting of the designated heritage assets. The maximum design scenario is summarised in **Table 2.15**.
- 2.11.5 The detailed assessment of impacts and effects arising from changes within the settings of designated heritage assets during construction is presented within Volume 2, Appendix 2.4: Settings Assessment of the ES. **Table 2.18** presents the results of that assessment with regard to the likely impacts and effects resulting from the construction of the converter stations and the Converter Site.

Table 2.18: Impact of the operation and maintenance of the converter stations and the Converter Site on designated heritage assets

Asset name	NHLE number	Asset type	Sensitivity/ value	Magnitude of impact	Significance of effect
Two bowl barrows south of Haycroft	1013671	Scheduled Monument	High	Negligible adverse	Minor adverse
Round barrow on Darracott Moor	1012445	Scheduled Monument	High	Negligible adverse	Minor adverse
Iron Age defended settlement and Roman camp 125 m east of Higher Kingdon Barn	1004558	Scheduled Monument	High	Medium adverse	Moderate adverse
Tapeley Park	1000704	Grade II* Registered Park and Garden	High	Negligible adverse	Minor adverse
Church of St Mary Magdalene, Huntshaw	1326528	Grade II* listed building	High	Negligible adverse	Minor adverse
Church of All Saints, Alverdiscott	1170720	Grade II* listed building	High	Negligible adverse	Minor adverse
Haddacott Farmhouse and attached wall and barn	1105147	Grade II listed building	Medium	Negligible adverse	Negligible adverse
Barn c. 50 m east of West Webbery Farmhouse	1170742	Grade II listed building	Medium	Negligible adverse	Negligible adverse
Little Webbery	1104417	Grade II listed building	Medium	Low adverse	Minor adverse
Webbery Barton	1305951	Grade II listed building	Medium	Low adverse	Minor adverse

The Impact of Operation and Maintenance of the Proposed Development on the Character of the Historic Landscape

2.11.6 Operation and maintenance activities associated with the converter stations could change the character of the historic landscape within the study area. These activities could harm the heritage significance of the historic landscape, principally through changes in visual aspects such as the introduction of very modern elements, but also through permanent loss of elements of the historic landscape such as field boundaries. Some of these field boundaries may be 'Important hedgerows' as defined by the criteria identified in the Hedgerow Regulations 1997. The maximum design scenario is summarised in **Table 2.15**.

Sensitivity/value of the Receptor

2.11.7 There are no well-preserved historic landscapes within the study area. The sensitivity of the receptor is therefore considered to be **low**.

Magnitude of the Impact

- 2.11.8 Impacts on the character of the historic landscape during operation and maintenance would be direct (physical and non-physical) and long term. The detailed design of the Converter Site, including any landscape mitigation measures, would have regard to the character of the historic landscape. All of these elements of the design would include consideration of the need to avoid or reduce impacts on the character of the historic landscape.
- 2.11.9 The impact is predicted to be of up to regional spatial extent, long term duration, and generally reversible. It is predicted that the impact will affect the receptor directly and indirectly. The magnitude is therefore, considered to be **low adverse**.

Significance of the Effect

2.11.10 Overall, the sensitivity/value of the receptor is **low** and the magnitude of the impact is **low adverse**. The effect will, therefore, be of up to **minor adverse** significance, which is not significant.

Further (Secondary) Mitigation and Residual Effect

2.11.11 No further mitigation is proposed. The residual effect will, therefore, be of up to **minor adverse** significance, which is not significant.

Future Monitoring

2.11.12 No future monitoring is proposed.

Xlinks' Morocco-UK Power Project - Environmental Statement

2.12 Assessment of Decommissioning Effects

2.12.1 The impacts of the decommissioning phase of the Proposed Development have been assessed. The impacts arising from the decommissioning phase of the Proposed Development are listed in **Table 2.6** along with the maximum design scenario against which each impact has been assessed.

The Impact of the Decommissioning of the Proposed Development on Designated Heritage Assets as a Result of Change Within Their Setting

2.12.2 With regard to impacts on designated heritage assets as a result of change within their setting, it is considered that all such effects relating to the decommissioning of the converter stations and Converter Site would be the same as, or lower than, those recorded for the construction phase. The limited extent of decommissioning work along the Onshore HVDC Cable Corridor and the HVAC Cable Corridors would not result in any impacts to designated heritage assets as a result of change within their setting.

The Impact of the Decommissioning of the Proposed Development on the Character of the Historic Landscape

2.12.3 Decommissioning activities could change the character of the historic landscape within the study area. These activities could harm the heritage significance of the historic landscape, principally through changes in visual aspects such as the presence of equipment used for decommissioning although there may also be some limited noise impacts. The maximum design scenario is summarised in **Table 2.15**.

Sensitivity/value of the Receptor

2.12.4 There are no well-preserved historic landscapes within the study area. The sensitivity of the receptor is therefore considered to be **low**.

Magnitude of Impact

- 2.12.5 Impacts on the character of the historic landscape during decommissioning would be direct (physical and non-physical) and short term.
- 2.12.6 The impact is predicted to be of up to regional spatial extent, short term duration, and generally reversible. It is predicted that the impact will affect the receptor directly and indirectly. The magnitude is therefore, considered to be **negligible adverse**.

Xlinks' Morocco-UK Power Project - Environmental Statement

Significance of the Effect

2.12.7 Overall, the sensitivity/value of the receptor is **low** and the magnitude of the impact is **negligible adverse**. The effect will, therefore, be of up to **minor adverse** significance, which is not significant.

Further (Secondary) Mitigation and Residual Effect

2.12.8 No further mitigation is proposed. The residual effect will, therefore, be of up to **minor adverse** significance, which is not significant.

Future Monitoring

2.12.9 No future monitoring is proposed.

2.13 Cumulative Environmental Assessment

- 2.13.1 The Cumulative Effects Assessment (CEA) takes into account the impact associated with the Proposed Development together with other projects and plans. The projects and plans selected as relevant to the CEA presented within this chapter are based upon the results of a screening exercise (see Volume 1, Appendix 5.3: CEA Screening Matrix). Each project has been considered on a case-by-case basis for screening in or out of this chapter's assessment based upon data confidence, effect-receptor pathways and the spatial/temporal scales involved.
- 2.13.2 The historic environment CEA methodology has followed the methodology set out in Volume 1, Chapter 5: EIA methodology of the ES. As part of the assessment, all projects and plans considered alongside the Proposed Development have been allocated into 'tiers' reflecting their current stage within the planning and development process.
 - Tier 1
 - Under construction
 - Permitted application
 - Submitted application
 - Those currently operational that were not operational when baseline data were collected, and/or those that are operational but have an ongoing impact
 - Tier 2
 - Scoping report has been submitted
 - Tier 3
 - Scoping report has not been submitted
 - Identified in the relevant Development Plan
 - Identified in other plans and programmes.
- 2.13.3 This tiered approach is adopted to provide a clear assessment of the Proposed Development alongside other projects, plans and activities.

Xlinks' Morocco-UK Power Project - Environmental Statement

- 2.13.4 The CEA also considers the Proposed Development and the anticipated National Grid Electricity Transmission (NGET) substation (which will be implemented by NGET and thus, does not form part of the Proposed Development) together. This is because the NGET substation will be required for the connection of the Proposed Development to the national grid.
- 2.13.5 The specific projects, plans and activities scoped into the CEA, are outlined in **Table 2.19**. The locations of such projects, plans and activities are presented on Volume 2, Figure 2.4 of the ES.

Project	Status	Distance from Proposed Development (nearest point, km)	Description	Dates of Construction (if available)	Dates of Operation (if available)	Overlap with the Proposed Development?
Tier 1						
1/1057/2021/FULM Solar farm at Webbery Barton and Cleave Farm	Under construction	Adjacent to the Converter Site	Installation and operation of a solar farm with all associated works, equipment and necessary infrastructure	Commenced		Yes
Tier 2			-		-	
None						
Tier 3						
Alverdiscott Substation Connection Development	Unknown	Partially within the Converter Site	The development area for the Alverdiscott Substation Connection Development comprises up to 3.8 hectares. Within that area it is assumed that the substation itself will occupy a footprint of approximately 2.8 hectares, with a maximum height of 15 m excluding connecting tower structures.			Yes

Table 2.19: List of cumulative developments considered within the CEA

Scope of Cumulative Effects Assessment

- 2.13.6 The cumulative effects presented and assessed in this section have been based on the Project Design Envelope set out in Volume 1, Chapter 3: Project Description of the ES as well as the information available on other projects and plans. The maximum design scenario as described for the Proposed Development (see **Table 2.15**) has been assessed cumulatively with the following other projects/plans:
 - Alverdiscott Substation Connection Development
 - Solar farm at Webbery Barton and Cleave Farm
- 2.13.7 The CEA has considered the Proposed Development, alongside the Alverdiscott Substation Connection Development to be developed at the existing Alverdiscott Substation Site. The assessed design has been based upon a combination of reasonable worst case parameters, as detailed within Volume 1, Chapter 3: Project Description of the ES. The development area for the substation would comprise up to 3.8 ha of land. Within that area it is assumed that the substation itself will occupy a footprint of approximately 2.8 ha, with a maximum height of 15 m, excluding connecting tower structures. If further information is available for the proposal before the Proposed Development receives development consent, the Applicant will review the information and provide any update needed to the CEA.

Cumulative Effects Assessment

2.13.8 A description of the significance of cumulative effects upon the historic environment receptors arising from construction, operation and maintenance and decommissioning is given below.

Alverdiscott Substation Connection Development

Construction

- 2.13.9 The Alverdiscott Substation Connection Development is located within the Order Limits. Construction of the Proposed Development is likely to occur ahead of any works associated with the Alverdiscott Substation Connection Development, thus it is assumed that the loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest will have been fully addressed ahead of such works. Construction of the Alverdiscott Substation Connection Development would therefore not result in any cumulative effects in respect of the loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest.
- 2.13.10 The construction of the Converter Site, including the converter station buildings, has the potential to result in harm to the significance of designated heritage assets as a result of change within their settings. For some designated heritage assets there may be a cumulative effect when this change is considered alongside the change within their setting resulting from the construction of the Alverdiscott Substation Connection Development. Given the proposed height and massing of the converter station buildings in comparison to the Alverdiscott Substation Development, any cumulative effects would be no greater than the effects of the Proposed Development alone.

Xlinks' Morocco-UK Power Project - Environmental Statement

2.13.11 The construction of the Converter Site, including the converter station buildings, has the potential to result in harm to the historic landscape as a change to its character. There may be a cumulative effect when this change is considered alongside the change resulting from the construction of the Alverdiscott Substation Connection Development. Given the proposed height and massing of the converter station buildings in comparison to the Alverdiscott Substation Connection Development, any cumulative effects would be no greater than the effects of the Proposed Development alone.

Operation and Maintenance

- 2.13.12 The operation and maintenance of the Converter Site, including the converter station buildings, has the potential to result in harm to the significance of designated heritage assets as a result of change within their settings. For some designated heritage assets there may be a cumulative effect when this change is considered alongside the change within their setting resulting from the operation and maintenance of the Alverdiscott Substation Connection Development. Given the proposed height and massing of the converter station buildings in comparison to the Alverdiscott Substation Connection Development, any cumulative effects would be no greater than the effects of the Proposed Development alone.
- 2.13.13 The operation and maintenance of the Converter Site, including the converter station buildings, has the potential to result in harm to the historic landscape as a change to its character. There may be a cumulative effect when this change is considered alongside the change resulting from the construction and operation and maintenance of the Alverdiscott Substation Connection Development. Given the proposed height and massing of the converter station buildings in comparison to the Alverdiscott Substation Connection Development, any cumulative effects would be no greater than the effects of the Proposed Development alone.

Decommissioning

- 2.13.14 The decommissioning of the Converter Site, including the converter station buildings, has the potential to result in harm to the significance of designated heritage assets as a result of change within their settings. For some designated heritage assets there may be a cumulative effect when this change is considered alongside the change within their setting resulting from the operation of the Alverdiscott Substation Connection Development. Given the proposed height and massing of the converter station buildings in comparison to the Alverdiscott Substation Connection Development, any cumulative effects would be no greater than the effects of the Proposed Development alone.
- 2.13.15 The decommissioning of the Converter Site, including the converter station buildings, has the potential to result in harm to the historic landscape as a change to its character. There may be a cumulative effect when this change is considered alongside the change resulting from the operation of the Alverdiscott Substation Connection Development. Given the proposed height and massing of the converter station buildings in comparison to the Alverdiscott Substation Connection Development, any cumulative effects would be no greater than the effects of the Proposed Development alone.

Solar Farm at Webbery Barton and Cleave Farm

Construction

- 2.13.16 The solar farm at Webbery Barton and Cleave Farm is located partially within the Order Limits. Where construction of the solar farm has occurred ahead of any works associated with the Proposed Development, it is assumed that the loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest will have been fully addressed ahead of that construction. Works associated with the Proposed Development would therefore not result in any cumulative effects in respect of the loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest.
- 2.13.17 The construction of the Converter Site, including the converter station buildings and the Alverdiscott Substation Connection Development and associated infrastructure has the potential to result in harm to the significance of designated heritage assets as a result of change within their settings. For some designated heritage assets there may be a cumulative effect when this change is considered alongside the change within their setting resulting from the operation and maintenance of the solar farm at Webbery Barton and Cleave Farm. Given the proposed height and massing of the converter station buildings in comparison to the solar farm, any cumulative effects would be no greater than the effects of the Proposed Development alone.
- 2.13.18 The construction of the Converter Site, including the converter station buildings and the Alverdiscott Substation Connection Development and associated infrastructure has the potential to result in harm to the historic landscape as a change to its character. There may be a cumulative effect when this change is considered alongside the change resulting from the operation and maintenance of the solar farm at Webbery Barton and Cleave Farm. Given the proposed height and massing of the converter station buildings in comparison to the solar farm, any cumulative effects would be no greater than the effects of the Proposed Development alone.

Operation and Maintenance

- 2.13.19 The operation and maintenance of the Converter Site, including the converter station buildings and the Alverdiscott Substation Connection Development and associated infrastructure has the potential to result in harm to the significance of designated heritage assets as a result of change within their settings. For some designated heritage assets there may be a cumulative effect when this change is considered alongside the change within their setting resulting from the operation and maintenance of the solar farm at Webbery Barton and Cleave Farm. Given the proposed height and massing of the converter station buildings in comparison to the solar farm, any cumulative effects would be no greater than the effects of the Proposed Development alone.
- 2.13.20 The operation and maintenance of the Converter Site, including the converter station buildings and the Alverdiscott Substation Connection Development and associated infrastructure has the potential to result in harm to the historic landscape as a change to its character. There may be a cumulative effect when this change is considered alongside the change resulting from the operation and maintenance of the solar farm at Webbery Barton and Cleave Farm. Given the

Xlinks' Morocco-UK Power Project - Environmental Statement

proposed height and massing of the converter station buildings in comparison to the solar farm, any cumulative effects would be no greater than the effects of the Proposed Development alone.

Decommissioning

- 2.13.21 The decommissioning of the Converter Site, including the converter station buildings and the Alverdiscott Substation Connection Development and associated infrastructure has the potential to result in harm to the significance of designated heritage assets as a result of change within their settings. For some designated heritage assets there may be a cumulative effect when this change is considered alongside the change within their setting resulting from the operation of the solar farm at Webbery Barton and Cleave Farm. Given the proposed height and massing of the converter station buildings in comparison to the solar farm, any cumulative effects would be no greater than the effects of the Proposed Development alone.
- 2.13.22 The decommissioning of the Converter Site, including the converter station buildings and the Alverdiscott Substation Connection Development and associated infrastructure has the potential to result in harm to the historic landscape as a change to its character. There may be a cumulative effect when this change is considered alongside the change resulting from the operation of the solar farm at Webbery Barton and Cleave Farm. Given the proposed height and massing of the converter station buildings in comparison to the solar farm, any cumulative effects would be no greater than the effects of the Proposed Development alone.

2.14 Transboundary Effects

2.14.1 A screening of transboundary impacts has been carried out and has identified that there was no potential for significant transboundary effects with regard to the historic environment from the Proposed Development upon the interests of other states.

2.15 Inter-related Effects

- 2.15.1 Inter-relationships are the impacts and associated effects of different aspects of the Proposed Development on the same receptor. These are as follows.
 - Project lifetime effects: Assessment of the scope for effects that occur throughout more than one phase of the Proposed Development (construction, operation and maintenance, and decommissioning), to interact to potentially create a more significant effect on a receptor than if just assessed in isolation in these three phases.
 - Receptor led effects: Assessment of the scope for all relevant effects (including inter-relationships between environmental topics) to interact, spatially and temporally, to create inter-related effects on a receptor.
- 2.15.2 A description of the likely inter-related effects arising from the Proposed Development on the historic environment is provided in Volume 4, Chapter 5: Inter-related effects of the ES.

Xlinks' Morocco-UK Power Project - Environmental Statement

2.16 Summary of Impacts, Mitigation Measures and Monitoring

- 2.16.1 Information on the historic environment within the study area was collected through desk-based reviews of available data, along with site visits and programmes of archaeological fieldwork. Consultation was undertaken with relevant stakeholders to ensure that the data sources examined thus far were the appropriate ones and that the archaeological fieldwork is being undertaken in accordance with best practice.
- 2.16.2 **Table 2.20** presents a summary of the likely impacts, measures adopted as part of the Proposed Development and residual effects in respect to the historic environment. The impacts assessed include:
 - loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest during construction;
 - the impact of construction and decommissioning of the Proposed Development (other than the converter stations) on designated heritage assets as a result of change within their setting;
 - the impact of construction, operation and maintenance, and decommissioning of the converter stations on designated heritage assets as a result of change within their setting;
 - the impact of construction and decommissioning of the Proposed Development on the character of the historic landscape; and
 - the impact of the operation and maintenance of the converter stations on the character of the historic landscape.
- 2.16.3 Overall, it is concluded that there will be the following likely significant effects arising from the Proposed Development during the construction, operation and maintenance or decommissioning phases:
 - an effect of up to major adverse significance arising from loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest during construction – this has been identified on a precautionary basis and the likelihood of this may reduce or disappear as the programme of archaeological evaluation continues;
 - an effect of moderate adverse significance arising from the change within the setting of one Scheduled Monument during construction of the converter stations and associated landscaping; and
 - an effect of **moderate adverse** significance arising from the change within the setting of one Scheduled Monument during operation and maintenance of the converter stations and associated landscaping.
- 2.16.4 **Table 2.21** presents a summary of the cumulative impacts, mitigation measures and residual effects. The cumulative impacts assessed include:
 - loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest during construction;
 - the impact of construction, operation and maintenance, and decommissioning of the converter stations and associated landscaping on designated heritage assets as a result of change within their setting; and

Xlinks' Morocco-UK Power Project - Environmental Statement

- the impact of construction, operation and maintenance, and decommissioning of the converter stations and associated landscaping on the historic landscape as a result of change to its character.
- 2.16.5 Overall, it is concluded that there will be the following significant cumulative effects from the Proposed Development alongside other projects/plans:
 - an effect of up to major adverse significance arising from loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest during construction – this has been identified on a precautionary basis and the likelihood of this may reduce or disappear as the programme of archaeological evaluation continues;
 - an effect of **moderate adverse** significance arising from the change within the setting of one Scheduled Monument during construction of the converter stations and associated landscaping; and
 - an effect of **moderate adverse** significance arising from the change within the setting of one Scheduled Monument during operation and maintenance of the converter stations and associated landscaping. The impact may reduce over time as any proposed landscape planting reaches maturity.
- 2.16.6 The assessment has not identified any cumulative effects of a greater level of significance than those arising from the Proposed Development when considered on its own.
- 2.16.7 No transboundary impacts have been identified in regard to effects of the Proposed Development.

Table 2.20: Summary of environmental effects

Description of Impact	Pl C		se ^a D	Embedded Mitigation	Sensitivity/ value of receptor	Magnitude of impact	Significance of Effect	Further Mitigation	Residual Effect	Proposed Monitoring
Loss of, or Harm to, Buried Archaeological Remains and Deposits of Geoarchaeological and Palaeoenvironmental Interest	~	×	×	ONS64, ONS32, ONS33, and ONS04 (see Table 2.14).	C: Up to High O: Up to High D: Up to High	C: Up to Medium O: No change D: No change	C: Up to Moderate or Major Adverse O: No change D: No change	ONS65 (see Table 2.14).	C: Up to Moderate or Major Adverse O: No change D: No change	C: None O: None D: None
The impact of the Proposed Development (except the converter stations and the Converter Site) on a 19th century lime kiln 365 m north north west of Landcross Bridge (Scheduled Monument) as a result of change within its setting		×	×	ONS64, ONS32 and ONS33 (see Table 2.14).	C: High O: N/A D: N/A	C: Negligible adverse O: N/A D: N/A	C: Minor adverse O: N/A D: N/A	None	C: Minor adverse O: N/A D: N/A	C: None O: None D: None
The impact of the Proposed Development (except the converter stations and the Converter Site) on Abbotsham Court, Tower House and East Wing (Grade II listed building) as a	~	×	×	ONS64, ONS32 and ONS33 (see Table 2.14).	C: Medium O: N/A D: N/A	C: Negligible adverse O: N/A D: N/A	C: Minor adverse O: N/A D: N/A	None	C: Minor adverse O: N/A D: N/A	C: None O: None D: None

Description of Impact	Phase ^a			Embedded Mitigation	Sensitivity/		Significance			Proposed
	С	0	D		value of receptor	of impact	of Effect	Mitigation	Effect	Monitoring
result of change within its setting.										
The impact of the Proposed Development (except the converter stations and the Converter Site) on four Grade II listed buildings at Coombe as a result of change within their setting.	×	×	×	ONS64, ONS32 and ONS33 (see Table 2.14).	C: Medium O: N/A D: N/A	C: Negligible adverse O: N/A D: N/A	C: Negligible adverse O: N/A D: N/A	None	C: Negligible adverse O: N/A D: N/A	C: None O: None D: None
The impact of the converter stations and the Converter Site on two bowl barrows south of Haycroft (Scheduled Monument) as a result of change within its setting.	~	~	~	ONS64, ONS32 and ONS33 (see Table 2.14).	C: High O: High D: High	C: Negligible adverse O: Negligible adverse D: Negligible adverse	C: Minor adverse O: Minor adverse D: Minor adverse	None	C: Minor adverse O: Minor adverse D: Minor adverse	C: None O: None D: None
The impact of the converter stations and the Converter Site on a round barrow on Darracott Moor (Scheduled Monument) as a result of change within its setting.	~	~	~	ONS64, ONS32 and ONS33 (see Table 2.14).	C: High O: High D: High	C: Negligible adverse O: Negligible adverse D: Negligible adverse	C: Minor adverse O: Minor adverse D: Minor adverse	None	C: Minor adverse O: Minor adverse D: Minor adverse	C: None O: None D: None
The impact of the converter stations and the Converter Site on an Iron Age defended settlement	~	✓	~	ONS64, ONS32 and ONS33 (see Table 2.14).	C: High O: High D: High	C: Medium adverse O: Medium adverse	C: Moderate adverse O: Moderate adverse	None	C: Moderate adverse	C: None O: None D: None

Description of Impact	Phase ^a		se ^a	Embedded Mitigation	Sensitivity/		Significance			Proposed
	С	0	D		value of receptor	of impact	of Effect	Mitigation	Effect	Monitoring
and Roman camp 125 m east of Higher Kingdon Barn (Scheduled Monument) as a result of change within its setting.						D: Medium adverse	D: Moderate adverse		O: Moderate adverse D: Moderate adverse	
The impact of the converter stations and the Converter Site on Tapeley Park (Grade II* Registered Park and Garden) as a result of change within its setting.	~	~	•	ONS64, ONS32 and ONS33 (see Table 2.14).	C: High O: High D: High	C: Negligible adverse O: Negligible adverse D: Negligible adverse	C: Minor adverse O: Minor adverse D: Minor adverse	None	C: Minor adverse O: Minor adverse D: Minor adverse	C: None O: None D: None
The impact of the converter stations and the Converter Site on the Church of St Mary Magdalene, Huntshaw (Grade II* listed building) as a result of change within its setting.	~	~	•	ONS64, ONS32 and ONS33 (see Table 2.14).	C: High O: High D: High	C: Negligible adverse O: Negligible adverse D: Negligible adverse	C: Minor adverse O: Minor adverse D: Minor adverse	None	C: Minor adverse O: Minor adverse D: Minor adverse	C: None O: None D: None
The impact of the converter stations and the Converter Site on the Church of All Saints, Alverdiscott (Grade II* listed building) as a result of change within its setting.	~	~	~	ONS64, ONS32 and ONS33 (see Table 2.14).	C: High O: High D: High	C: Negligible adverse O: Negligible adverse D: Negligible adverse	C: Minor adverse O: Minor adverse D: Minor adverse	None	C: Minor adverse O: Minor adverse D: Minor adverse	C: None O: None D: None

Description of	Phase ^a		se ^a	Embedded Mitigation	Sensitivity/					Proposed
Impact	С	0	D		value of receptor	of impact	of Effect	Mitigation	Effect	Monitoring
The impact of the converter stations and the Converter Site on Haddacott Farmhouse and attached wall and barn (Grade II listed building) as a result of change within its setting.	~	~	*	ONS64, ONS32 and ONS33 (see Table 2.14).	C: Medium O: Medium D: Medium	C: Negligible adverse O: Negligible adverse D: Negligible adverse	C: Negligible adverse O: Negligible adverse D: Negligible adverse	None	C: Negligible adverse O: Negligible adverse D: Negligible adverse	C: None O: None D: None
The impact of the converter stations and the Converter Site on a barn c. 50 m east of West Webbery Farmhouse (Grade II listed building) as a result of change within its setting.	~	~	~	ONS64, ONS32 and ONS33 (see Table 2.14).	C: Medium O: Medium D: Medium	C: Negligible adverse O: Negligible adverse D: Negligible adverse	C: Negligible adverse O: Negligible adverse D: Negligible adverse	None	C: Negligible adverse O: Negligible adverse D: Negligible adverse	C: None O: None D: None
The impact of the converter stations and the Converter Site on Little Webbery (Grade II listed building) as a result of change within its setting.	~	~	•	ONS64, ONS32 and ONS33 (see Table 2.14).	C: Medium O: Medium D: Medium	C: Low adverse O: Low adverse D: Low adverse	C: Minor adverse O: Minor adverse D: Minor adverse	None	C: Minor adverse O: Minor adverse D: Minor adverse	C: None O: None D: None
The impact of the converter stations and the Converter Site on Webbery Barton (Grade II listed building) as a	 ✓ 	~	✓	ONS64, ONS32 and ONS33 (see Table 2.14).	C: Medium O: Medium D: Medium	C: Low adverse O: Low adverse D: Low adverse	C: Minor adverse O: Minor adverse D: Minor adverse	None	C: Minor adverse O: Minor adverse D: Minor adverse	C: None O: None D: None

Description of	-		Embedded Mitigation						I Proposed	
Impact	С	0	D		value of receptor	of impact	of Effect	Mitigation	Effect	Monitoring
result of change within its setting.										
The impact of the Proposed Development on the character of the historic landscape.	✓	~	~	ONS64, ONS32 and ONS33 (see Table 2.14).	C: Low O: Low D: Low	C: Low adverse O: Low adverse D: Negligible adverse	C: Up to minor adverse O: Up to minor adverse D: Up to minor adverse	None	C: Up to minor adverse O: Up to minor adverse D: Up to minor adverse	C: None O: None D: None

^aC=construction, O=operation and maintenance, D=decommissioning

Table 2.21: Summary of cumulative environmental effects

Description of	PI	Phase ^a		Phase ^a		Phase ^a		Embedded	Sensitivity	Magnitude	Significance		Residual	Proposed
Impact	С	0	D	Mitigation	of receptor	of impact	of Effect	Mitigation	Effect	Monitoring				
Tier 1			•											
Loss of, or Harm to, Buried Archaeological Remains and Deposits of Geoarchaeological and Palaeoenvironmental Interest	✓	×	×	ONS64, ONS32, ONS33, and ONS04 (see Table 2.14).	C: Up to High O: Up to High D: Up to High	C: Up to Medium O: No change D: No change	C: Up to Moderate or Major Adverse O: No change D: No change	ONS65 (see Table 2.14).	C: Up to Moderate or Major Adverse O: No change D: No change	C: None O: None D: None				
The impact of the converter stations and the Converter Site on designated heritage assets as a	✓	~	~	ONS64 (see Table 2.14).	C: Up to High O: Up to High D: Up to High	C: Up to medium adverse O: Up to medium adverse	C: Up to moderate adverse O: Up to moderate adverse	None	C: Up to moderate adverse O: Up to moderate adverse	C: None O: None D: None				

Description of Impact	Pł	nas	e ^a	Embedded Mitigation	Sensitivity of receptor	Magnitude of impact	Significance of Effect	Further Mitigation	Residual Effect	Proposed Monitoring
	С	0	D					Jungenen		g
result of change within their setting.						D: Up to medium adverse	D: Up to moderate adverse		D: Up to moderate adverse	
The impact of the Proposed	~	~	~	ONS64 (see Table 2.14).	C: Low O: Low	C: Low adverse O: Low adverse	C: Up to minor adverse	None	C: Up to minor adverse	C: None
Development on the character of the					D: Low	D: Negligible adverse	O: Up to minor adverse		O: Up to minor adverse	O: None
historic landscape.							D: Up to minor adverse		D: Up to minor adverse	D: None

^aC=construction, O=operation and maintenance, D=decommissioning

2.17 References

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