



XLINKS MOROCCO-UK POWER PROJECT

Preliminary Environmental Information Report

Volume 2, Chapter 2: Historic Environment



FOR ISSUE
April 2024

xlinks.co

Contents

2	HISTORIC ENVIRONMENT	1
2.1	Introduction	1
2.2	Legislative and Policy Context	2
2.3	Consultation and Engagement.....	7
2.4	Methodology	15
2.5	Baseline Environment	22
2.6	Key Parameters for Assessment.....	26
2.7	Mitigation Measures Adopted as Part of the Proposed Development.....	30
2.8	Assessment of Construction Effects	31
2.9	Assessment of Operational Effects	37
2.10	Assessment of Decommissioning Effects	40
2.11	Cumulative Environmental Assessment.....	43
2.12	Transboundary Effects.....	47
2.13	Inter-related Effects.....	47
2.14	Summary of Impacts, Mitigation Measures and Monitoring	47
2.15	Next Steps	52
2.16	References	52

Tables

Table 2.1:	Summary of relevant NPS policy	4
Table 2.2:	Summary of NPPF requirements relevant to this chapter	6
Table 2.3:	Summary of local planning policy relevant to this chapter	6
Table 2.4:	Summary of Scoping Responses.....	7
Table 2.5:	Summary of consultation relevant to this chapter	14
Table 2.6:	Issues considered within this assessment	16
Table 2.7:	Issues scoped out of the assessment	16
Table 2.8:	Sensitivity criteria	19
Table 2.9:	Impact magnitude criteria.....	20
Table 2.10:	Assessment matrix.....	21
Table 2.11:	Summary of key desk study sources used.....	22
Table 2.12:	Key designated heritage assets within the historic environment study area.....	23
Table 2.13:	Key receptors taken forward to assessment	26
Table 2.14:	Maximum design scenario considered for the assessment of potential impacts	27
Table 2.15:	Mitigation measures adopted as part of the Proposed Development.....	30
Table 2.16:	List of cumulative developments considered within the CEA	45
Table 2.17:	Summary of potential environmental effects	49

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

Appendices (See Volume 2, Appendices)

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

Glossary

Term	Meaning
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 confirmed by National Grid Electricity Transmission.
Alverdiscott Substation site	The National Grid Electricity Transmission substation site within which the Alverdiscott Substation sits.
Applicant	Xlinks 1 Limited.
Bronze Age	The time period 1,800 to 600 BC.
Conservation Area	An area designated by a local authority as being of special architectural or historic interest.
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.
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, 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.

XLINKS MOROCCO – UK POWER PROJECT

Term	Meaning
HVDC Cables	The High Voltage Direct Current (HVDC) 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.
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 Bay 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: <ul style="list-style-type: none"> • grade I (these are of exceptional interest); • grade II* (these are particularly important); and • 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.
Mean Low Water Springs	The height of mean 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 Heritage List for England	List of nationally designated heritage assets maintained by Historic England.
Neolithic Period	The time period 4,000 to 1,800 BC.
Onshore HVDC Cable Corridor	The proposed corridor within which the onshore HVDC cables will be located.
Onshore Infrastructure Area	The proposed area within the Proposed Development Draft Order Limits landward of the transition joint bays, which contains the onshore HVDC Cables, Converter Site, the Alverdiscott Substation Connection Development, highway works, utility diversions and onshore HVAC Cables.
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.
Preliminary Environmental Information Report (PEIR)	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.

XLINKS MOROCCO – UK POWER PROJECT

Term	Meaning
Proposed Development	The element of the Xlinks Morocco-UK Power Project within the UK, which includes the offshore cables (from the UK Exclusive Economic Zone to landfall), landfall site, onshore Direct Current and Alternating Current cables, converter stations, road upgrade works and, based on current assumptions, the Alverdiscott Substation Connection Development.
Proposed Development Draft 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).
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: <ul style="list-style-type: none"> • 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 statutory stakeholders, has identified should be considered within the Environmental Impact Assessment process.
Spatial extent	Geographical area over which the impact may occur.
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
AD	Anno Domini – after the birth of Christ
BC	Before Christ
CIfA	Chartered Institute for Archaeologists
CoCP	Code of Construction Practice
DCO	Development Consent Order
DESNZ	Department for Energy Security and Net Zero
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
ES	Environmental Statement
HER	Historic Environment Record
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IEMA	Institute for Environmental Management and Assessment
MHWS	Mean High Water Springs
NHLE	National Heritage List for England
NPPF	National Planning Policy Framework
NPS	National Policy Statement
PEIR	Preliminary Environmental Information Report
ZTV	Zone of Theoretical Visibility

Units

Units	Meaning
km	Kilometre
kV	Kilovolt
m	Metre
m ²	Metre squared
nm	Nautical miles

2 HISTORIC ENVIRONMENT

2.1 Introduction

- 2.1.1 This chapter of the Preliminary Environmental Information Report (PEIR) presents the preliminary findings of the Environmental Impact Assessment (EIA) work undertaken to date for the United Kingdom (UK) elements of the Xlinks Morocco-UK Power Project. For ease of reference, the UK elements of the Xlinks Morocco-UK Power Project are referred to in this chapter as the 'Proposed Development'.
- 2.1.2 This chapter considers the potential 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 Low Water Springs.
- 2.1.3 In particular, this PEIR chapter:
- sets out the existing and future environmental baseline conditions, established from desk studies, surveys and consultation undertaken to date;
 - presents the potential environmental impacts and effects on all aspects of the historic environment arising from the Proposed Development, based on the information gathered and the analysis and assessments undertaken to date;
 - identifies any assumptions and limitations encountered in compiling the environmental information; and
 - highlights any necessary monitoring and/or mitigation measures that could prevent, minimise, reduce or offset the possible environmental effects identified in the EIA process.
- 2.1.4 The assessment presented is informed by the following technical chapter:
- Volume 4, Chapter 2: Landscape, Seascape and Visual Resources, of the PEIR.
- 2.1.5 This chapter also draws upon information contained within:
- Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment, of the PEIR;
 - Volume 2, Appendix 2.2: Preliminary Geophysical Survey Report, of the PEIR; and
 - Volume 2, Appendix 2.3: Preliminary Trial Trenching Report, of the PEIR.
- 2.1.6 The PEIR will inform pre-application consultation. Following consultation, comments on the PEIR and any refinements in design will be reviewed and taken into account, where appropriate, in preparation of the Environmental Statement (ES) that will accompany the application to the Planning Inspectorate for development consent.

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 PEIR.
- 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 Hedgerow Regulations 1997 set out criteria for the identification of ‘Important Hedgerows’. According to the Hedgerow Regulations 1997, a hedgerow can be defined as ‘important’ if it has existed for 30 years or more and falls into one of the criteria listed in Part II of Schedule 1. Consent from the local planning authority is usually required for the removal of an ‘Important Hedgerow.’ However, such removal is deemed to be permitted where a Development Consent Order (DCO) has been granted.
- 2.2.7 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.
- 2.2.8 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;*

- *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.'*

2.2.9 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.

2.2.10 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.

2.2.11 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

- 2.2.12 A summary of the relevant planning policy context is provided below, with further details included in section 1.3 of Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment, of the PEIR.
- 2.2.13 The Proposed Development will be located within the UK Exclusive Economic Zone (EEZ) offshore waters (beyond 12 nm from the English coast) and inshore waters, with the onshore infrastructure located wholly within Devon, England. As set out in Volume 1, Chapter 1: Introduction, of the PEIR, 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

- 2.2.14 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).
- 2.2.15 **Table 2.1** sets out key aspects from the NPSs relevant to the Proposed Development, with particular reference to the need for and approach to consenting such infrastructure.

Table 2.1: Summary of relevant NPS policy

Summary of NPS requirement	How and where considered in the PEIR
NPS EN-1 (DESNZ, 2023a)	
<p><i>‘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.’</i></p> <p>(paragraph 5.9.9 of NPS EN-1)</p>	<p>The assessment of likely impacts is presented in sections 2.8 to 2.10 of this PEIR 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.</p> <p>The assessment of likely cumulative impacts is presented in section 2.11 of this PEIR chapter. The assessment includes references to historic landscape character assessments as appropriate.</p>
<p><i>‘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</i></p>	<p>A description of the significance of the heritage assets affected by the Proposed Development is provided in section 2.5 of this PEIR chapter.</p>

Summary of NPS requirement	How and where considered in the PEIR
<p><i>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.’</i> (Paragraph 5.9.10 of NPS EN-1)</p>	<p>Additional information regarding the historic environment baseline situation is provided in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment, of the PEIR. The relevant Historic Environment Record (HER) has been consulted.</p>
<p><i>‘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.’</i> (Paragraph 5.9.11 of NPS EN-1)</p>	<p>The desk-based assessment is presented in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment, of the PEIR. Field evaluation has been undertaken and the available results are presented in Volume 2, Appendix 2.2: Preliminary Geophysical Survey Report, of the PEIR and Volume 2, Appendix 2.3: Preliminary Trial Trenching Report, of the PEIR. No representative visualisations have been produced for the PEIR as the location, form and massing of the built elements of the Proposed Development have not yet been defined.</p>
<p><i>‘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.’</i> (Paragraph 5.9.12 of NPS EN-1)</p>	<p>The impact of the Proposed Development on the significance of heritage assets is clearly assessed within sections 2.8 to 2.10 of this PEIR chapter. The assessments presented within sections 2.8 to 2.10 of this PEIR chapter include consideration of potential noise, vibration, light and indirect impacts.</p>
<p><i>‘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 development affecting the setting of a heritage asset.’</i> (Paragraph 5.9.22 of NPS EN-1)</p>	<p>This information is presented within section 2.5 of this PEIR chapter, with additional information provided in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment, of the PEIR.</p>

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, except for a section in EN-5 regarding landscape and visual effects (**section 2.9**) which 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, 2021, September 2023 and December 2023 (Department

for Levelling Up, Housing and Communities, 2023). The NPPF sets out the Government’s planning policies for England.

2.2.18 Policies regarding the historic environment are set out in Chapter 16 of the NPPF and further details of these policies are provided in section 1.3 of Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment, of the PEIR.

2.2.19 **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 PEIR
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 2.5 of this PEIR chapter, with further detail provided in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment, of the PEIR.

2.2.20 The Planning Practice Guidance (Department for Levelling Up, Housing and Communities, 2023) supports the NPPF and provides guidance across a range of topic areas.

2.2.21 The Planning Practice Guidance provides advice 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 Section 1.3 of Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment, of the PEIR.

Local Planning Policy

2.2.22 The onshore elements of the Proposed Development are located within the administrative area of Torridge District Council. 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 Section 1.3 of Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment, of the PEIR.

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

Policy	Key provisions	How and where considered in the PEIR
North Devon and Torridge 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 2.7 of this PEIR 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 2.5 of this PEIR chapter and in Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment, of the PEIR. The impact of the Proposed Development on the significance of heritage assets is assessed within sections 2.8 to 2.10 of this PEIR chapter.

2.3 Consultation and Engagement

- 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 and operational 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 onshore historic environment are listed in **Table 2.4**, together with details of how these issues have been addressed within the PEIR.

Table 2.4: Summary of Scoping Responses

Comment	How and where considered in the PEIR
Planning Inspectorate	
<p><i>‘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.’</i></p>	<p>The cable trench 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.</p> <p>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. Therefore, this will be considered further in the ES. 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 construction phase and effects mitigated where possible (See section 2.8).</p>
<p><i>‘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</i></p>	<p>Effects arising from impacts on buried archaeological and geoarchaeological resources during decommissioning have been scoped out, as set out in Table 2.7.</p> <p>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</p>

Comment	How and where considered in the PEIR
<i>effects could occur, or further evidence why likely significant effects would not arise.'</i>	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.
<i>'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.'</i>	Noted - this has been scoped out of the assessment.
<i>'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.'</i>	This 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 sections 2.2 and 2.4 respectively.
<i>'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 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.'</i>	A Zone of Theoretical Visibility has been established for the Converter Site (see paragraph 2.5.3). 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. 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. The study areas identified in Volume 2, Figure 2.1 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. It also includes the Alverdiscott Substation Connection Development.
<i>'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.'</i>	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. 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.
<i>'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</i>	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, and will be

Comment	How and where considered in the PEIR
<i>should be considered in the assessment, where likely significant effects could occur.'</i>	covered by the proposed Outline Written Scheme of Investigation (WSI) for Onshore Archaeology proposed in Table 2.15 .
<i>'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.'</i>	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.
<i>'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.'</i>	The scope of works to be covered by the Outline WSI for Onshore Archaeology will be negotiated in advance with the Local Planning Authority's Historic Environment Team/advisors and will be submitted to them for their review and approval prior to the commencement of the works.
<i>'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 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.'</i>	In addition to the matrix-based approach set out in the Scoping Report, the assessment of individual impacts will also be 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 approach has proved acceptable to Historic England in recent similar DCO applications.
<i>'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.'</i>	Noted. An assessment will be undertaken to examine potential impacts to buried archaeological assets from alterations to groundwater levels. Where significant effects are likely to occur, the assessment will be incorporated within the ES Chapter, accompanied by references to the Hydrology, Geology and Ground Conditions chapter as appropriate.
<i>'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</i>	An assessment of impacts resulting from vibration will be presented within the ES following the development of the design of the Converter Site.

Comment	How and where considered in the PEIR
<p><i>high levels of vibration, and the plant strategy for the converter stations would incorporate vibration control as part of the design.</i></p> <p><i>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.</i></p> <p><i>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.'</i></p>	
<p>Historic England</p>	
<p><i>'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).'</i></p>	<p>In addition to the matrix-based approach set out in the Design Manual for Road and Bridges, the assessment of individual impacts will also be articulated in in the ES with 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.</p> <p>This approach has proved acceptable to Historic England in recent similar DCO applications.</p>
<p><i>'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):</i></p> <ul style="list-style-type: none"> - <i>Good Practice Advice in Planning 2: Managing Significance in Decision-Taking in the Historic Environment</i> - <i>Good Practice Advice in Planning 3: The Setting of Heritage Assets</i> - <i>Good Practice Advice in Planning (GPA) 12: Statements of Heritage Significance'</i> 	<p>As set out in Section 2.4 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.</p> <p>A list of the relevant guidance documents, including those mentioned by Historic England, can be found in Section 2.4.</p>
<p><i>'Historic Environment - Legislative and Policy context - we suggest that the following are also reviewed:</i></p> <ul style="list-style-type: none"> - <i>European Landscape Convention</i> - <i>The Convention for the Protection of the Architectural Heritage of Europe</i> 	<p>Relevant legislative and guidance documents utilised in this assessment, including those identified by Historic England, are set out in Section 2.2.</p>

Comment	How and where considered in the PEIR
<p><i>- The European Convention on the Protection of Archaeological Heritage.'</i></p>	
<p><i>'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?'</i></p>	<p>The study areas identified in Volume 2, Figure 2.1 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. It also includes the Alverdiscott Substation Connection Development.</p>
<p><i>'Table 7.3.1 Baseline data sources - this should include consideration of any historic landscape and seascape characterisation relevant to the area.'</i></p>	<p>A brief summary of the baseline historic environment within the study area is provided in Section 2.5 of this PEIR. Volume 2, Appendix 2.1: Historic Environment Desk-Based Assessment, of the PEIR, addresses historic landscape character in greater detail. Historic seascape characterisation is addressed in Volume 3, Chapter 7: Marine Archaeology and Cultural Heritage, of the PEIR.</p>
<p><i>'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 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.'</i></p>	<p>The assessment methodology (Section 2.4) is sufficiently nuanced to allow for recognition of different impacts as a result of construction. The issue of time delay when dealing with planted mitigation is noted, and is reflected in the assessment in Table 2.17.</p>
<p><i>'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.'</i></p>	<p>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 approach has proved acceptable to Historic England in recent similar DCO application.</p>
<p><i>'Photographic visualisations should be 75-80mm single image where required for Scheduled Monuments.'</i></p>	<p>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.</p>
<p><i>'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.'</i></p>	<p>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 will be assessed on an asset by asset basis as the design of the Proposed Development progresses. The asset by asset assessment will be presented within the ES.</p>

Comment	How and where considered in the PEIR
<p><i>'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.'</i></p>	<p>There has been extensive liaison with the heritage advisors to the local planning authority to date, and further consultation is intended throughout the course of the assessment.</p>
<p><i>'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 in the Tav 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.'</i></p>	<p>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 technology such as Horizontal Directional Drilling (HDD) which will avoid deposits of geoarchaeological or palaeoenvironmental interest in this area. If the additional research and fieldwork undertaken for the ES identifies the presence of deposits of geoarchaeological or palaeoenvironmental interest that could be impacted by the Proposed Development, an appropriate programme of fieldwork will be proposed in accordance with the relevant Historic England guidance and in agreement with the heritage advisors to the local planning authority. Any further mitigation or offsetting measures would be identified within the Outline WSI for Onshore Archaeology.</p>
<p><i>'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.'</i></p>	<p>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 PEIR.</p> <p>Works within the onshore landfall area are addressed within this chapter. Archaeological surveys in this area have been carried out in accordance with methodologies agreed with the archaeological advisors to the local authority.</p>
<p>North Devon Council</p>	
<p><i>'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.'</i></p>	<p>Designated heritage assets potentially affected by the Proposed Development are listed in Table 2.12 and shown in Volume 2, Figure 2.2. An asset by asset assessment will be undertaken for the ES.</p>
<p><i>'List of heritage assets in NDDC in proximity to the site:</i></p> <ul style="list-style-type: none"> - Tapeley Park (Registered Park and Garden) Grade II - Church of St Michael Horwood Grade I - The Courtledge Horwood Grade II 	<p>Designated heritage assets potentially affected by the Proposed Development are listed in Table 2.12 and shown in Volume 2, Figure 2.2.. An asset by asset assessment will be undertaken for the ES.</p>

Comment	How and where considered in the PEIR
<ul style="list-style-type: none"> - Church Farm Cottage Horwood Grade II - The Forge Horwood Grade II 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 - Bradavin Farm Grade II - Eastleigh Manor Grade II* - Eastleigh Manor House Grade II* - Eastleigh Manor Granary Grade II - Eastleigh Manor Barn with attached roundhouse Grade II - Shippons at Eastleigh Manor Grade II - The Pines Eastleigh Grade II - Barn at The Pines Eastleigh Grade II - 1 Rock Cottage Eastleigh Grade II - Little Pillhead Farmhouse (Webbery) Grade II. <p><i>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.</i></p>	<p>The DCO application will be assessed against relevant local and national planning policies and any relevant legislation.</p>
Torrige District Council	
<p><i>'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.'</i></p>	<p>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: Preliminary Geophysical Survey Report, Site 31). These anomalies were investigated in the trial trenching (Volume 2, Appendix 2.3: Preliminary Trial Trenching Report, Trenches 2 and 3) and Post-medieval pottery was recovered. A programme of further archaeological work will be agreed and incorporated within the Outline WSI for Onshore Archaeology set out in Table 2.15.</p>
<p><i>'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.'</i></p>	<p>Views into Bideford, and in particular those with potential to impact upon historic assets such as Listed Buildings will be assessed within the ES in line with the methodology set out in section 2.4.</p>

2.3.3 Following scoping, consultation and engagement with interested parties specific to the onshore historic environment has continued.

2.3.4 A summary of the key issues raised during consultation activities undertaken to date is presented in **Table 2.5**, together with how these issues have been considered in the production of this PEIR chapter.

Table 2.5: Summary of consultation relevant to this chapter

Date	Consultee and type of response	Issues raised	How and where considered in the PEIR
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.
August 2022	Devon County Council Historic Environment Team	Comments on the draft Written Scheme of Investigation for archaeological geophysical survey.	The archaeological geophysical survey has been undertaken in accordance with the agreed Written Scheme of Investigation. The results of the survey to date are set out in Volume 2, Appendix 2.2: Preliminary Geophysical Survey Report, of the PEIR.
September 2022	Devon County Council Historic Environment Team	Agreement on the final Written Scheme of Investigation for archaeological geophysical survey.	The archaeological geophysical survey has been undertaken in accordance with the agreed Written Scheme of Investigation. The results of the survey to date are set out in Volume 2, Appendix 2.2: Preliminary Geophysical Survey Report, of the PEIR.
November 2022	Devon County Council Historic Environment Team	Progress update regarding the archaeological geophysical survey.	The archaeological geophysical survey has been undertaken in accordance with the agreed Written Scheme of Investigation. The results of the survey to date are set out in Volume 3, Appendix 2.2: Preliminary Geophysical Survey Report, of the PEIR.
February 2023	Devon County Council Historic Environment Team	Meeting to discuss principles of the programme of trial trenching.	The results of the trial trenching to date are set out in Volume 3, Appendix 2.3: Preliminary Trial Trenching Report, of the PEIR.
March 2023	Devon County Council Historic Environment Team	Comments on the draft Written Scheme of Investigation for archaeological trial trenching.	The archaeological trial trenching has been undertaken in accordance with the agreed Written Scheme of Investigation. The results of the trial trenching to date are set out in Volume 2, Appendix 2.3: Preliminary Trial Trenching Report, of the PEIR.
June 2023	Devon County Council Historic Environment Team	Site meetings to review progress on the programme of archaeological trial trenching.	The results of the trial trenching to date are set out in Volume 2, Appendix 2.3: Preliminary Trial Trenching Report, of the PEIR.
August 2023	Devon County Council Historic Environment Team	Site meetings to review progress on the programme of archaeological trial trenching.	The results of the trial trenching to date are set out in Volume 2, Appendix 2.3: Preliminary Trial Trenching Report, of the PEIR.

2.4 Methodology

Relevant Guidance

- 2.4.1 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);
 - 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).

Scope of the Assessment

- 2.4.2 The scope of this PEIR has been developed in consultation with relevant statutory and non-statutory consultees as detailed in **Table 2.4** and **Table 2.5**.
- 2.4.3 The historic environment baseline has been established through a review of available information acquired from appropriate sources including the National Heritage List for England (NHLE) and the Devon HER. The study areas for the acquisition of baseline information extends beyond the land required for the construction, operation and maintenance and decommissioning of the onshore elements of the Proposed Development as set out below. These study areas have been agreed with stakeholders via the Scoping Report and the Scoping Opinion as well as through subsequent consultation (see **Table 2.4** and **Table 2.7**).
- 2.4.4 The acquisition of available baseline information has been supplemented by field surveys, as set out below. The scope and extent of these field surveys has been developed with, and approved by, the appropriate stakeholders.
- 2.4.5 Taking into account the scoping and consultation process, **Table 2.6** summarises the issues considered as part of this assessment.

Table 2.6: Issues considered within this assessment

Activity	Potential effects scoped into the assessment
Construction Phase	
Construction within the Onshore Infrastructure Area.	Effects arising from damage to or permanent loss of buried archaeological and geoarchaeological resources.
	Effects arising from changes within the settings of designated heritage assets.
	Effects arising from changes to the character of the historic landscape.
Operation and Maintenance	
Operation and maintenance of the converter stations and the Alverdiscott Substation Connection Development.	Effects arising from changes within the settings of designated heritage assets.
	Effects arising from 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.	Effects arising from changes within the settings of designated heritage assets.
Decommissioning	
Decommissioning within the Onshore Infrastructure Area.	Effects arising from changes within the settings of designated heritage assets.
	Effects arising from changes to the character of the historic landscape.

2.4.6 Effects which are not considered likely to be significant have been scoped out of the assessment. A summary of the effects scoped out is presented in **Table 2.7**.

Table 2.7: Issues scoped out of the assessment

Issue	Justification
Operation and Maintenance	
Effects arising from changes within the settings of designated heritage assets during operation and maintenance of the onshore elements of the Proposed Development, other than the Converter Stations and the Alverdiscott Substation Connection Development.	Activities associated with the operation and maintenance of the onshore cables/landfall and associated infrastructure are unlikely to represent a significant change within the settings of designated heritage assets. This was agreed by the Planning Inspectorate in the Scoping Opinion (ID 3.2.3).
Effects arising from changes to the character of the historic landscape during operation and maintenance of the onshore elements of the Proposed Development, other than the Converter Stations and the Alverdiscott Substation Connection Development.	Activities associated with the operation and maintenance of the onshore cables/landfall and associated infrastructure are unlikely to represent a significant change to the character of the historic landscape.
Effects arising from impacts on buried archaeological and geoarchaeological resources during operation and maintenance.	Activities associated with the operation and maintenance and decommissioning of the onshore elements of the Proposed Development will not require additional land take and are unlikely to damage or result in the permanent loss of buried archaeological and geoarchaeological resources. This was agreed by the Planning Inspectorate in the Scoping Opinion other than a requirement to consider the potential for changes to groundwater levels and/or heat output from

Issue	Justification
	buried cables in respect of the deterioration of buried archaeological assets (ID 3.2.1). This issue will be addressed in the ES.
Decommissioning	
Effects arising from impacts on buried archaeological and geoarchaeological resources during decommissioning.	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.

Study Area

2.4.7 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 HVDC Cable Corridor (for all categories of designated heritage assets). This enables the identification of designated heritage assets whose settings may change during construction of the onshore HVDC cables. 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 HVDC Cable Corridor (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 HVDC Cable Corridor. It also enables the identification of other non-designated heritage assets such as locally listed buildings within this defined study area.

2.4.8 These study areas have been agreed through the Scoping process and are identified on and the Alverdiscott Substation Connection Development. (see Volume 2, Figures, of the PEIR).

2.4.9 Furthermore, the AIL routes incorporated within the Proposed Development have been scoped out of assessment within this document and 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.

Methodology for Baseline Studies

Desk Studies

- 2.4.10 A brief summary of the baseline historic environment within the study area is provided in **section 2.5** 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 PEIR.

Site-Specific Surveys

- 2.4.11 A programme of archaeological geophysical survey has been initiated within the Onshore HVDC Cable Corridor. The survey programme is ongoing and will examine all land within the Onshore HVDC Cable Corridor and the Converter Site which is suitable for this type of survey, and within which access for the survey can be obtained.
- 2.4.12 A summary of the results of the geophysical survey undertaken thus far is presented within this chapter of the PEIR, with the full assessment provided in Volume 2, Appendix 2.2: Preliminary Geophysical Survey Report, of the PEIR. The geophysical survey methodology comprises magnetometry (fluxgate gradiometry). This methodology has been agreed with the Historic Environment Team at Devon County Council.
- 2.4.13 A programme of archaeological trial trenching has been initiated within the Onshore HVDC Cable Corridor. The programme of trial trenching is ongoing and will examine all land within the Onshore HVDC Cable Corridor and the Converter Site which is suitable for trial trenching, and within which access for the trial trenching can be obtained.
- 2.4.14 A summary of the results of the programme of archaeological trial trenching undertaken thus far is presented within this chapter of the PEIR, with the full assessment provided in Volume 2, Appendix 2.3: Preliminary Trial Trenching Report, of the PEIR. The methodology for the programme of trial trenching has been agreed with the Historic Environment Team at Devon County Council.

Impact Assessment Methodology

Overview

- 2.4.15 The significance of an effect is determined based on the sensitivity of a receptor and the magnitude of an impact. This section describes the criteria applied in this chapter to characterise the sensitivity of receptors and magnitude of potential impacts. The terms used to define magnitude and sensitivity are based on and have been adapted from those used in the Design Manual for Roads and Bridges (DMRB) methodology (Highways England *et al.*, 2020b).
- 2.4.16 The approach to determining the significance of effects is a two-stage process that involves defining the magnitude of the impact and the sensitivity of the receptor. This section describes the criteria applied in this chapter to assign values to the magnitude of potential impacts and the sensitivity of the receptors. The terms used to define magnitude and sensitivity are based on those which are described in further detail in Volume 1, Chapter 5: EIA Methodology, of the PEIR.

Receptor Sensitivity/Value

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

Table 2.8: Sensitivity criteria

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

Sensitivity	Definition/examples
	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

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

Table 2.9: Impact magnitude criteria

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 changes to elements of the heritage asset, or within the setting of the asset.

Significance of Effect

2.4.19 The significance of the effect upon a heritage asset has been determined by taking into account the sensitivity 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.

2.4.20 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.

2.4.21 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.

Table 2.10: Assessment matrix

Sensitivity of Receptor	Magnitude of Impact			
	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

2.4.22 Where the magnitude of impact is ‘no change’, no effect would arise.

2.4.23 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

2.4.24 All readily available data required for the assessment have been acquired, collated and critically examined.

2.4.25 One key limitation is with regard to the presence, absence, extent, nature and heritage significance of buried archaeological remains within the Landfall, Onshore HVDC Cable Corridor, the High Voltage Alternating Current (HVAC) cable and the Converter Site. A number of methodologies have been utilised in order to gain as much information as possible, including walkover surveys, geophysical surveys and trial trenching.

2.4.26 Further investigation of land within the Landfall, onshore HVDC Cable Corridor, the HVAC cable and the Converter Site to determine its archaeological potential is planned to take place ahead of the production of the ES. It is intended that the results of these investigations will be submitted in support of the application for development consent for the Proposed Development, although this is dependent

on suitable ground conditions and agreements for access. The nature and extent of any investigation will depend on the current understanding of the archaeological potential of the specific area along with the proposed activities required for the construction of the onshore elements of the Proposed Development. 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.

- 2.4.27 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. 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. This will be refined for the ES.

2.5 Baseline Environment

Desk Study

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

Table 2.11: Summary of key desk study sources used

Title	Source
National Heritage List for England	Historic England
Devon Historic Environment Record	Devon County Council
ArchSearch database	Archaeological Data Service
Portable Antiquities Scheme	Online database
British Geological Survey	Online database

Identification of designated heritage assets

- 2.5.2 No designated heritage assets would be directly physically impacted by the construction, operation and maintenance of the Proposed Development. Any impacts on the significance of designated heritage assets would arise from a change within the setting of the asset.
- 2.5.3 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).
- 2.5.4 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 cable route except Grade II listed buildings have been allocated a project-specific Site Number. For the 5 km settings study area for the converter station, all designated heritage assets (except Grade II listed buildings) 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

stated in **Table 2.12** below and shown in Volume 2, Figure 2.2 and Volume 2, Figure 2.3.

Table 2.12: Key designated heritage assets within the historic environment study area

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
9	1253508	Church of St Thomas of Canterbury, Newton Tracey	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
206	1107611	Eastleigh Manor House, Westleigh	Grade II* listed building
207	1318076	Eastleigh Barton, Westleigh	Grade II* listed building
208	1200874	Nos. 4/4A Bridgeland Street, Bideford	Grade II* listed building
209	1025001	No. 31 Bridgeland Street, Bideford	Grade II* listed building
210	1200879	Nos. 28/28A Bridgeland Street, Bideford	Grade II* listed building
211	1025052	No. 27 Bridgeland Street, Bideford	Grade II* listed building
212	1025135	The Masonic Hall, Bridgeland Street, Bideford	Grade II* listed building
213	1355163	Lavington United Reform Church, Bideford	Grade II* listed building
214	1012445	Round barrow on Darracott Moor	Scheduled Monument
215	1012443	Round barrow to the east of Darracott Moor	Scheduled Monument
216	1013652	Bowl barrow on south eastern side of Darracott Moor	Scheduled Monument
217	1012444	Round barrow on south eastern side of Darracott Moor	Scheduled Monument
218	1016225	Berry Castle Iron Age hillfort	Scheduled Monument

2.5.5 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.

2.5.6 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 PEIR.

Archaeology and history

- 2.5.7 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.
- 2.5.8 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 ditch likely to represent the remains of another round barrow, several enclosures and also linear features associated with former field systems.
- 2.5.9 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).
- 2.5.10 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.
- 2.5.11 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 landuse during the Medieval period.
- 2.5.12 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

- 2.5.13 In order to inform the PEIR, site-specific surveys were undertaken, as agreed with the appropriate stakeholders.

Geophysical Survey

- 2.5.14 An extensive geophysical survey which covers part of the onshore HVDC Cable Corridor was undertaken in 2011 in support of a previous planning application. Additional geophysical survey was undertaken in 2022 across a considerable portion of the land within the Onshore HVDC Cable Corridor that had not been previously surveyed. The report on the results of this additional survey work is

presented in Volume 2, Appendix 2.2: Preliminary Geophysical Survey Report, of the PEIR.

- 2.5.15 The 2022 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 furrow earthworks that represent arable farming during the Medieval and early Post-medieval periods.

Trial Trenching

- 2.5.16 Following on from the examination of the results of the geophysical survey, a programme of archaeological trial trenching was undertaken across much of the land within the Onshore HVDC Cable Corridor. The report on the results of this additional survey work is presented in Volume 2, Appendix 2.3: Preliminary Trial Trenching Report, of the PEIR.
- 2.5.17 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.
- 2.5.18 Evidence of Early Neolithic activity was found in one area within the Onshore HVDC Cable Corridor, 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

- 2.5.19 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires 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. In the event that the Proposed Development does not come forward, an assessment of the future baseline conditions has been carried out and is described within this section.
- 2.5.20 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.
- 2.5.21 Other changes could occur as a result of further information being discovered regarding archaeological sites, possibly through the completion of the programme of geophysical survey archaeological trial trenching. The results of any such investigations would be incorporated into the historic environment baseline reported within the ES submitted in support of the application for development consent for the Proposed Development if they become available in that timeframe.

2.5.22 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

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

Table 2.13: Key receptors taken forward to assessment

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

2.6 Key Parameters for Assessment

Maximum Design Scenario

2.6.1 The maximum design scenarios identified in **Table 2.14** 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 Project Design Envelope provided in Volume 1, Chapter 3: Project Description, of the PEIR. 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 scheme. Therefore, this comprises a conservative assessment of a worst case scenario.

Table 2.14: Maximum design scenario considered for the assessment of potential impacts

Potential Impact	Phase ¹			Maximum Design Scenario	Justification	
	C	O	D			
Loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest	✓	×	×	Construction phase <ul style="list-style-type: none"> Maximum size of Converter Site compound including working and laydown area (but excluding permanent Converter Site footprint) (m²): 20,000 m² 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 stations (combined) including landscape bunding, planting and drainage (m²): 373,000 m² Maximum duration of construction at Converter Site (months): 72 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 Maximum number of joint bays along Onshore HVDC Cable Corridor: 34 Maximum width of joint bays along Onshore HVDC Cable Corridor (m): 20 Maximum length of joint bays along Onshore HVDC Cable Corridor (m): 5 Maximum depth of joint bays along Onshore HVDC Cable Corridor (m): 1.4 	<p>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 interest, the settings of heritage assets and on the character of the historic landscape.</p>	
The impact of construction and decommissioning of the Proposed Development (except the converter stations) on designated heritage assets as a result of change within their setting.	✓	×	✓			<p>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.</p> <p>The greatest length and width of the onshore HVDC and HVAC cables 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 on the character of the historic landscape.</p> <p>The greatest number, width and depth of the cable trenches within the onshore HVDC and HVAC cable during construction represents the greatest potential for impacts on buried archaeological remains and deposits of</p>
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	✓	×	✓			

XLINKS MOROCCO – UK POWER PROJECT

Potential Impact	Phase ¹			Maximum Design Scenario	Justification
	C	O	D		
the Proposed Development (except the converter stations) on the character of the historic landscape.				<ul style="list-style-type: none"> Maximum number of link boxes along Onshore HVDC Cable Corridor: 34 Maximum width of link boxes along Onshore HVDC Cable Corridor (m): 1.5 	<p>gearchaeological and palaeoenvironmental interest.</p> <p>The greatest number, width and depth of the joint bays 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.</p>
The impact of construction, operation and maintenance and decommissioning of the converter stations on the character of the historic landscape.	✓	✓	✓	<ul style="list-style-type: none"> 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 duration of construction of Onshore HVDC cable corridor (months): 36 Maximum length of HVAC cable corridor (km): 1.2 Maximum width of HVAC cable corridor (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) Maximum number of cable trenches within HVAC cable corridor: 4 Maximum width of cable trenches within HVAC cable corridor (m): 4.9 at surface, 2.1 at base Maximum depth of cable trenches within HVAC cable corridor (m): 1.4 Maximum duration of construction of HVAC cable corridor (months): 24 (two phases each of 12 months) Maximum area of main construction compound (Gammaton Road) (m²): 63,000 Maximum area of secondary construction compound (A39 road) (m²): 48,000 Maximum area of Landfall construction compound (m²): 10,000 Maximum area of Converter Site construction compound excluding permanent Converter Site footprint (m²): 20,000 	<p>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.</p> <p>The greatest duration of construction of the onshore HVDC and HVAC cables represents the greatest potential for impacts on the settings of heritage assets and on the on the character of the historic landscape.</p> <p>The maximum areas and numbers of the construction compounds and HDD compounds 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.</p> <p>The greatest duration of the use of the construction compounds and HDD</p>

XLINKS MOROCCO – UK POWER PROJECT

Potential Impact	Phase ¹			Maximum Design Scenario	Justification
	C	O	D		
				<ul style="list-style-type: none"> Maximum number of HDD compounds: 16 Maximum area of HDD compounds (m²): 10,000 Maximum duration of each HDD (months): 12 <ul style="list-style-type: none"> Maximum number of HDD entry pits at Landfall: 4 Maximum number of HDD exit pits at Landfall: 4 Maximum width of HDD pits at Landfall (m): 5 Maximum length of HDD pits at Landfall (m): 5 Maximum depth of HDD pits at Landfall (m): 3 Maximum number of transition joint bays: 2 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 <p>Operation and maintenance phase: converter stations</p> <ul style="list-style-type: none"> 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 stations (combined) including landscape bunding, planting and drainage (m²): 373,000 <p>Decommissioning phase</p> <ul style="list-style-type: none"> 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). 	<p>compounds represents the greatest potential for impacts on the settings of heritage assets and on the on the character of the historic landscape.</p> <p>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.</p> <p>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.</p>

¹ C=construction, O=operational and maintenance, D=decommissioning

2.7 Mitigation Measures Adopted as Part of the Proposed Development

2.7.1 **Table 2.15** provides a summary of the mitigation measures that have been identified in relation to historic environment. The mitigation measures proposed as part of the Proposed Development include the following types of mitigation:

- Primary (inherent) mitigation – measures included as part of the project design. IEMA (2017) 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.
- 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 an environmental management plan.
- 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 (CEMP) or similar.

Table 2.15: Mitigation measures adopted as part of the Proposed Development

Measure Adopted	How the Measure Will be Secured
Primary Mitigation	
The onshore elements of the Proposed Development, including temporary land required for construction, will be designed to minimise land take and to avoid, where possible, impacts on known buried archaeological sites and features.	Committed with the project design and secured through the DCO.
The onshore elements of the Proposed Development, including temporary land required for construction, will be designed to avoid direct physical impacts on designated heritage assets.	Committed with the project design and secured through the DCO.
Secondary Mitigation	
An Outline Landscape and Ecology Management Plan will be prepared and submitted with the application for development consent. A Landscape and Ecology Management Plan will be developed in accordance with the Outline Landscape and Ecology Management Plan. The Landscape and Ecology Management Plan will include details of mitigation planting at the onshore substation sites, including the number, location, species and details of management and maintenance of planting. Where practical, landscape mitigation planting will be established as early as reasonably practicable in the construction phase.	Outline Landscape and Ecology Management Plan to be provided as part of application for development consent.

Measure Adopted	How the Measure Will be Secured
An Outline Written Scheme of Investigation (WSI) for Onshore Archaeology will be prepared and submitted with the application for development consent. A detailed WSI for Onshore Archaeology will be developed in line with the Outline WSI for Onshore Archaeology. The Onshore WSI will detail the survey and archaeological mitigation requirements in advance of and during construction.	These measures would be secured as a requirement of the DCO.
The ongoing programmes of geophysical survey and archaeological trial trenching would be completed, where practicable and where legal access is available.	Undertaken ahead of DCO submission, with results used in the assessment presented within the ES.
Tertiary Mitigation	
An Outline Onshore Construction Environmental Management Plan (On-CEMP) will be prepared and submitted with the application for development consent. An On-CEMP(s) will be developed in accordance with the Outline On-CEMP. The On-CEMP(s) will include measures to reduce temporary disturbance to heritage assets during construction.	Implemented through the On-CEMP(s). On-CEMP(s) to be secured as DCO requirement and agreed with relevant stakeholders.

2.8 Assessment of Construction Effects

- 2.8.1 The impacts of the construction of the Proposed Development have been assessed. The potential impacts arising from the construction phase of the Proposed Development are listed in **Table 2.14**, along with the maximum design scenario against which each impact has been assessed.
- 2.8.2 A description of the potential 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

- 2.8.3 The construction of the Landfall, the Onshore HVDC Cable Corridor, the HVAC Cable, the Converter Site and the Alverdiscott Substation Connection Development may lead to direct physical impacts on buried archaeological remains and/or deposits of geoarchaeological and palaeoenvironmental interest.
- 2.8.4 The maximum design scenario is summarised in **Table 2.14** and includes onshore HVDC Cable Corridor up to 14.5 km long and 65 m wide, HVAC cable corridor up to 1.2 km long and 65 m wide, and Converter Site footprints measuring up to 373,000 m².
- 2.8.5 These direct impacts could occur through the removal of overlying topsoil and subsoil, through excavation of trenches for cables, or through bulk excavation for deeper works such as launch and reception pits where HDD is required.
- 2.8.6 Known archaeological sites and features within the Onshore HVDC Cable Corridor include evidence for activity during the Mesolithic, Neolithic, Bronze Age, Iron Age, Roman, Medieval, Post-medieval and Modern periods.

Sensitivity of the Receptor

- 2.8.7 Buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest could be of national importance, although no remains of this level of significance have currently been identified within the land required for the Proposed Development. If features or deposits of national importance are identified within the land required for the Proposed Development as a result of the ongoing programmes of geophysical survey and archaeological trial trenching, then the scheme design will aim to ensure avoidance of impacts on such features or deposits wherever possible. However, the potential discovery of features or deposits of national importance during construction cannot be entirely ruled out. At this stage the sensitivity of the receptor is therefore considered to be up to **unknown**.

Magnitude of Impact

- 2.8.8 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.
- 2.8.9 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.
- 2.8.10 There is a general potential for buried archaeological remains to be present in all parts of the land required for the Proposed Development. The ongoing programme of archaeological surveys is aimed at identifying such remains wherever possible. However, the programme of geophysical survey and the subsequent programme of archaeological trial trenching have not identified any remains of greater than regional importance (albeit that these programmes of archaeological survey are ongoing).
- 2.8.11 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 impacts or effects but will serve to offset such impacts and effects.
- 2.8.12 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**.

Significance of the Effect

- 2.8.13 Overall, the magnitude of the impact is deemed to be up to **medium** and the sensitivity of the receptor is considered to be **unknown**. The predicted effect is currently, therefore, of **unknown** significance. As discussed above, this level of uncertainty will be addressed through the further surveys that will be reported on in the ES.

Further Mitigation

- 2.8.14 As described above, where direct impacts on buried archaeological remains or deposits of geoarchaeological and palaeoenvironmental interest cannot be avoided through design, programmes of further investigation will be undertaken ahead of and during construction. These will not reduce the overall impacts or effects but will serve to offset such impacts and effects. The residual effect will therefore remain unchanged.

Future Monitoring

- 2.8.15 No future monitoring is proposed.

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

- 2.8.16 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.
- 2.8.17 The visual impacts during construction would result from the presence of construction equipment and the establishment of a construction easement measuring up to 65 m in width for the Onshore HVDC Cable Corridor and the HVAC cable corridor. In some locations there would also be construction compounds and HDD compounds. The maximum design scenario is summarised in **Table 2.14**. Noise and potentially vibration impacts would also result from the use of construction equipment.
- 2.8.18 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 easement and the compounds would be reinstated to its former use and all equipment removed, leaving no noticeable trace above ground. Accesses required for transition joint bays and link boxes would be flush with the existing surface at each location.
- 2.8.19 Designated heritage assets of the highest level of significance within the agreed 1 km settings study area are identified in **Table 2.12**. They include four Scheduled Monuments (Sites 2, 3, 12 and 13), one Grade I listed building (Site 4), and three Grade II* listed buildings (Sites 6, 7 and 205). A number of Grade II listed buildings are also present within the agreed 1 km settings study area (Volume 2, Figure 2.2).

Sensitivity of the Receptor

- 2.8.20 Designated heritage assets within the study area include examples which are of national importance. The sensitivity of the receptor is therefore considered to be up to **high**.

Magnitude of Impact

- 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.
- 2.8.22 The setting of a heritage asset makes a contribution to its heritage significance, and this will need to be assessed on an asset by asset basis as the design of the Proposed Development progresses. The asset by asset assessment will be presented within the ES. Where possible, the design will seek to avoid or minimise harmful changes within the settings of designated heritage assets.
- 2.8.23 The impact in all cases is predicted to be of up to local spatial extent, short term duration, and reversible. The magnitude is therefore, considered to be **negligible**.

Significance of Effect

- 2.8.24 Overall, the magnitude of the impact is deemed to be up to negligible and the sensitivity of the receptor is considered to be up to high. The effect will, therefore, be of up to **minor adverse** significance, which is not significant in EIA terms. However, effects would be short-term and in all cases would be fully reversible.

Further Mitigation

- 2.8.25 No further mitigation is proposed.

Future Monitoring

- 2.8.26 No future monitoring is proposed.

The impact of the Construction of the Converter Stations and the Alverdiscott Substation Connection Development on Designated Heritage Assets as a Result of Change Within Their Setting

- 2.8.27 The converter stations and the Alverdiscott Substation Connection Development 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.
- 2.8.28 The visual impacts would result from the increasing presence of the converter station buildings and the Alverdiscott Substation Connection Development and associated infrastructure within the setting of the designated heritage assets. There would be additional impacts during construction as a result of the presence of construction equipment and compounds with associated lighting, and possibly also some limited noise and vibration impacts. The maximum design scenario is summarised in **Table 2.14**.
- 2.8.29 Designated heritage assets of the highest level of significance within the agreed 5 km settings study area established for the converter stations and also within the ZTV established for the Converter Site are identified in **Table 2.12**. They comprise a total of seven Scheduled Monuments (Sites 1, 2, 214, 215, 216, 217 and 218),

one Grade II* Registered Park and Garden (Site 11), one Grade I listed building (Site 5) and 13 Grade II* listed buildings (Sites 8, 9, 10, 14, 15, 206, 207, 208, 209, 210, 211, 212 and 213). The closest designated heritage asset to the converter stations is the Scheduled Monument near Higher Kingdon Barn which comprises an Iron Age enclosure and a Roman marching camp (Site 2). A considerable number of Grade II listed buildings are also present within the agreed 5 km settings study area and also within the ZTV established for the Converter Site (see Volume 2, Figure 2.3).

Sensitivity of the Receptor

- 2.8.30 Designated heritage assets within the agreed 5 km settings study area and also within the ZTV established for the Converter Site include Scheduled Monuments along with Grade I and II* listed buildings and a Grade II* Registered Park and Garden. The sensitivity of the receptor is therefore considered to be **high**.

Magnitude of Impact

- 2.8.31 Impacts on designated heritage assets as a result of change within their settings during construction would be indirect (non-physical) and long term, but potentially fully reversible. The magnitude of impact would depend largely on the level of intervisibility between the designated asset and the Converter Site and/or the Alverdiscott Substation Connection Development along with the contribution that the setting of the asset makes to its heritage significance, although it may be necessary to also assess the potential changes to the noise environment.
- 2.8.32 The locations of designated heritage assets in relation to the Converter Site are indicated in Volume 2, Figure 2.3. The converter stations and the Alverdiscott Substation Connection Development would potentially have some level of intervisibility with a number of designated heritage assets (as set out in **paragraph 2.8.29** above), and each of these may need to be individually assessed with regard to their setting once the detailed designs for the Converter Site and the Alverdiscott Substation Connection Development have been prepared. The asset by asset assessment will be presented within the ES.
- 2.8.33 The detailed design would have regard to the design of the converter stations and the Alverdiscott Substation Connection Development and also the location of the converter stations within the Converter Site. These elements of the design would include consideration of the need to avoid or reduce impacts on designated heritage assets arising from changes within their settings.
- 2.8.34 The impact is predicted to be of up to local spatial extent, medium term duration, and generally reversible. It is predicted that the impact will affect the receptor indirectly. The magnitude is currently considered to be up to **medium**.

Significance of Effect

- 2.8.35 Overall, the magnitude of the impact is deemed to be up to medium and the sensitivity of the receptor is high. The effect will, therefore, be of up to **major adverse** significance, which is significant in EIA terms.

Further Mitigation

- 2.8.36 Further mitigation would include consideration of the design of the converter stations in terms of refinements and their location within the Converter Site and the design of the Alverdiscott Substation Connection Development.

Future Monitoring

- 2.8.37 No future monitoring is proposed.

The Impact on the Character of the Historic Landscape

- 2.8.38 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 2.14**.

Sensitivity of the Receptor

- 2.8.39 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

- 2.8.40 Impacts on the character of the historic landscape during construction would be direct (physical) and indirect (non-physical) and short 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.
- 2.8.41 The impact is predicted to be of up to local 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**.

Significance of Effect

- 2.8.42 Overall, the magnitude of the impact is deemed to be up to low and the sensitivity of the receptor is considered to be low. The effect will, therefore, be of **negligible** or **minor adverse** significance, which is not significant in EIA terms. The effect would be short term and in almost all cases would be fully reversible.

Further Mitigation

- 2.8.43 No further mitigation is proposed.

Future Monitoring

2.8.44 No future monitoring is proposed.

2.9 Assessment of Operational Effects

2.9.1 The impacts of the operation and maintenance phase of the Proposed Development have been assessed. The potential impacts arising from the operation and maintenance phase of the Proposed Development are listed in **Table 2.14**, along with the maximum design scenario against which each impact has been assessed.

2.9.2 A description of the potential effect on receptors caused by each identified impact is given below.

The Impact of the Converter Stations and the Alverdiscott Substation Connection Development on Designated Heritage Assets as a Result of Change within their Setting

2.9.3 The converter stations and the Alverdiscott Substation Connection Development 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.

2.9.4 The visual impacts would result from the presence of the converter station buildings and the Alverdiscott Substation Connection Development and associated infrastructure within the setting of the designated heritage assets, and possibly also some limited noise impacts. The maximum design scenario is summarised in **Table 2.14**.

2.9.5 Designated heritage assets of the highest level of significance within the agreed 5 km settings study area and also within the ZTV established for the Converter Site are identified in **Table 2.12**. They comprise a total of seven Scheduled Monuments (Sites 1, 2, 214, 215, 216, 217 and 218), one Grade II* Registered Park and Garden (Site 11), one Grade I listed building (Site 5) and 13 Grade II* listed buildings (Sites 8, 9, 10, 14, 15, 206, 207, 208, 209, 210, 211, 212 and 213). The closest designated heritage asset to the converter stations is the Scheduled Monument near Higher Kingdon Barn which comprises an Iron Age enclosure and a Roman marching camp (Site 2). A number of Grade II listed buildings are also present within the agreed 5 km buffer zone established for the converter stations and also within the ZTV established for the Converter Site (see Volume 2, Figure 2.3).

Sensitivity of the Receptor

2.9.6 Designated heritage assets within the agreed 5 km settings study area and also within the ZTV established for the Converter Site include Scheduled Monuments along with Grade I and II* listed buildings and a Grade II* Registered Park and Garden. The sensitivity of the receptor is therefore considered to be **high**.

Magnitude of Impact

- 2.9.7 Impacts on designated heritage assets as a result of change within their settings during operation and maintenance would be indirect (non-physical) and long term, but potentially fully reversible. The magnitude of impact would depend largely on the level of intervisibility between the designated asset and the Converter Site and/or the Alverdiscott Substation Connection Development along with the contribution that the setting of the asset makes to its heritage significance, although it may be necessary to also assess the potential changes to the noise environment.
- 2.9.8 The locations of designated heritage assets in relation to the Converter Site are indicated in Volume 2, Figure 2.3. The converter stations would potentially have some level of intervisibility with a number of designated heritage assets (as set out above), and each of these may need to be individually assessed with regard to their setting once the detailed designs for the Converter Site and the Alverdiscott Substation Connection Development have been prepared. The asset by asset assessment will be presented within the ES.
- 2.9.9 The detailed design would have regard to the design of the converter stations, the layout of the Converter Site and also the landscaping that would be established in the vicinity of the Converter Site and the Alverdiscott Substation Connection Development in order to reduce visual impacts. These elements of the design would include consideration of the need to avoid or reduce impacts on designated heritage assets arising from changes within their settings.
- 2.9.10 The impact is predicted to be of up to local spatial extent, long term duration, and generally reversible. It is predicted that the impact will affect the receptor indirectly. The magnitude is currently considered to be up to **medium**.

Significance of Effect

- 2.9.11 Overall, the magnitude of the impact is deemed to be up to **medium** and the sensitivity of the receptor is **high**. The effect will, therefore, be of up to **major adverse** significance, which is significant in EIA terms.

Further Mitigation

- 2.9.12 Further mitigation would include consideration of the design refinements of the converter stations, their location within the Converter Site, the design of the Alverdiscott Substation Connection Development, and the configuration of any permanent lighting and any landscaping such as the use of earth bunds and planting to reduce visual impacts.

Future Monitoring

- 2.9.13 No future monitoring is proposed.

The Impact of the Converter Stations and the Alverdiscott Substation Connection Development on the Character of the Historic Landscape

- 2.9.14 Operation and maintenance activities associated with the converter stations and the Alverdiscott Substation Connection Development 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 2.14**.

Sensitivity of the Receptor

- 2.9.15 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

- 2.9.16 Impacts on the character of the historic landscape during construction would be direct (physical) and indirect (non-physical) and short term. The detailed design of the Converter Site and the Alverdiscott Substation Connection Development would have regard to the design of the converter station buildings and the Converter Site, also the landscaping that would be established in the vicinity of the Converter Site and the Alverdiscott Substation Connection Development. 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.
- 2.9.17 The impact is predicted to be of up to local 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**.

Significance of Effect

- 2.9.18 Overall, the magnitude of the impact is deemed to be up to **low** and the sensitivity of the receptor is considered to be **low**. The effect will, therefore, be of **negligible** or **minor adverse** significance, which is not significant in EIA terms.

Further Mitigation

- 2.9.19 No further mitigation is proposed.

Future Monitoring

- 2.9.20 No future monitoring is proposed.

2.10 Assessment of Decommissioning Effects

- 2.10.1 The impacts of the decommissioning phase of the Proposed Development have been assessed. The potential impacts arising from the decommissioning phase of the Proposed Development are listed in **Table 2.14**, along with the maximum design scenario against which each impact has been assessed.
- 2.10.2 A description of the potential effect on receptors caused by each identified impact is given below.

The Impact of the Decommissioning of the Proposed Development (Except the Converter Stations and the Alverdiscott Substation Connection Development) on Designated Heritage Assets as a Result of Change within their Setting

- 2.10.3 Decommissioning activities are likely to take place within the settings of designated heritage assets. However, such activities are very limited and are unlikely to harm the heritage significance of such assets.
- 2.10.4 Designated heritage assets of the highest level of significance within the agreed 1 km settings study area are identified in **Table 2.12**. They include four Scheduled Monuments, one Grade I listed building, and three Grade II* listed buildings. A number of Grade II listed buildings are also present within the agreed 1 km settings study area (Volume 2, Figure 2.2).

Sensitivity of the Receptor

- 2.10.5 Designated heritage assets within the study area include examples which are of national importance. The sensitivity of the receptor is therefore considered to be up to **high**.

Magnitude of Impact

- 2.10.6 Impacts on designated heritage assets as a result of change within their settings during decommissioning would be indirect (non-physical) and short term.
- 2.10.7 The impact in all cases is predicted to be of up to local spatial extent, short term duration, and reversible. The magnitude is considered to be **no change**.

Significance of Effect

- 2.10.8 Overall, the magnitude of the impact is deemed to be no change and therefore there would be **no effect**.

Further Mitigation

- 2.10.9 No further mitigation is proposed.

Future Monitoring

2.10.10 No future monitoring is proposed.

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

2.10.11 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 decommissioning of the converter stations and the Alverdiscott Substation Connection Development, 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 2.14**.

Sensitivity of the Receptor

2.10.12 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

2.10.13 Impacts on the character of the historic landscape during decommissioning would be direct (physical) and indirect (non-physical) and short term.

2.10.14 It is assumed that any physical element of the landscape established to reduce the visual impact of the converter stations (e.g. landscape planting) would be retained.

2.10.15 The impact is predicted to be of up to local 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 **low**.

Significance of Effect

2.10.16 Overall, the magnitude of the impact is deemed to be up to low and the sensitivity of the receptor is considered to be low. The effect will, therefore, be of **negligible** or **minor adverse** significance, which is not significant in EIA terms. The effect would be short term and in almost all cases would be fully reversible.

Further Mitigation

2.10.17 No further mitigation is proposed.

Future Monitoring

2.10.18 No future monitoring is proposed.

The Impact of the Decommissioning of the Converter Stations and the Alverdiscott Substation Connection Development on Designated Heritage Assets as a Result of Change within their Setting

- 2.10.19 The converter stations and the Alverdiscott Substation Connection Development are located within the settings of designated heritage assets including Scheduled Monuments and listed buildings. The decommissioning of these structures could harm the heritage significance of such assets, principally through changes in visual aspects of the setting.
- 2.10.20 The visual impacts would result from the visible presence of equipment for decommissioning within the setting of the designated heritage assets and possibly also some limited noise impacts. The maximum design scenario is summarised in **Table 2.14**.
- 2.10.21 Designated heritage assets of the highest level of significance within the agreed 5 km settings study area established for the converter stations and also within the ZTV established for the Converter Site are identified in **Table 2.12**. They comprise a total of seven Scheduled Monuments (Sites 1, 2, 214, 215, 216, 217 and 218), one Grade II* Registered Park and Garden (Site 11), one Grade I listed building (Site 5) and 13 Grade II* listed buildings (Sites 8, 9, 10, 14, 15, 206, 207, 208, 209, 210, 211, 212 and 213). The closest designated heritage asset to the converter stations is the Scheduled Monument near Higher Kingdon Barn which comprises an Iron Age enclosure and a Roman marching camp (Site 2). A number of Grade II listed buildings are also present within the agreed 5 km settings study area and also within the ZTV established for the Converter Site (See Volume 2, Figure 2.3).

Sensitivity of the Receptor

- 2.10.22 Designated heritage assets within the agreed 5 km settings study area and also within the ZTV established for the Converter Site include Scheduled Monuments along with Grade I and II* listed buildings and a Grade II* Registered Park and Garden. The sensitivity of the receptor is therefore considered to be **high**.

Magnitude of Impact

- 2.10.23 Impacts on designated heritage assets as a result of change within their settings during decommissioning would be indirect (non-physical) and short term, but fully reversible. The magnitude of impact would depend largely on the level of intervisibility between the designated asset and the Converter Site and/or the Alverdiscott Substation Connection Development along with the contribution that the setting of the asset makes to its heritage significance, although it may be necessary to also assess the potential changes to the noise environment.
- 2.10.24 The locations of designated heritage assets in relation to the Converter Site are indicated in Volume 2, Figure 2.3. The converter stations would potentially have some level of intervisibility with a number of designated heritage assets (as set out in **paragraph 2.10.21** above), and each of these may need to be individually assessed with regard to their setting once the detailed designs for the Converter

Site and the Alverdiscott Substation Connection Development have been prepared. The asset by asset assessment will be presented within the ES.

2.10.25 It is assumed that any physical element of the landscape established to reduce the visual impact of the converter stations (e.g. landscape planting) would be retained.

2.10.26 The impact is predicted to be of up to local spatial extent, short term duration, and reversible. It is predicted that the impact will affect the receptor indirectly. The impact magnitude is considered to be **negligible**.

Significance of Effect

2.10.27 Overall, the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is high. The effect will, therefore, be of **minor adverse** significance, which is not significant in EIA terms.

Further Mitigation

2.10.28 No further mitigation is proposed.

Future Monitoring

2.10.29 No future monitoring is proposed.

2.11 Cumulative Environmental Assessment

2.11.1 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.

2.11.2 The historic environment CEA methodology has followed the methodology set out in Volume 1, Chapter 5: EIA methodology, of the PEIR. 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.

2.11.3 This tiered approach is adopted to provide a clear assessment of the Proposed Development alongside other projects, plans and activities.

2.11.4 The specific projects, plans and activities scoped into the CEA, are outlined in **Table 2.16**.

XLINKS MOROCCO – UK POWER PROJECT

Table 2.16: List of cumulative developments considered within the CEA

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						
Solar farm at Webbery Barton and Cleave Farm	Under construction	Partially within the Proposed Development Draft Order Limits	Installation and operation of a solar farm with all associated works, equipment and necessary infrastructure	Commenced		Yes
Tier 2						
None						
Tier 3						
None						

Cumulative Effects Assessment

- 2.11.5 A description of the significance of cumulative effects upon historic environment receptors arising from construction and operation is given below.

Construction

Tier 1 Projects

- 2.11.6 The solar farm at Webbery Barton and Cleave Farm is located partially within the Draft Order Limits for the Proposed Development. 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.
- 2.11.7 The construction of the proposed 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 proposed 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

Tier 1 Projects

- 2.11.8 The operation and maintenance of the proposed 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 proposed 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

Tier 1 Projects

- 2.11.9 The decommissioning of the proposed 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 proposed converter station buildings in comparison to the solar farm, any cumulative effects would be no greater than the effects of the Proposed Development alone.

2.12 Transboundary Effects

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

2.13 Inter-related Effects

2.13.1 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), to interact to potentially create a more significant effect on a receptor than if just assessed in isolation in these three phases (e.g., construction noise effects from piling and operational substation noise).
- Receptor led effects: Assessment of the scope for all effects (including inter-relationships between environmental topics) to interact, spatially and temporally, to create inter-related effects on a receptor. As an example, all effects on the historic environment, such as direct physical harm or loss, change within setting etc., may interact to produce a different, or greater effect on this receptor than when the effects are considered in isolation. Receptor-led effects may be short term, temporary or transient effects, or incorporate longer term effects.

2.13.2 A description of the likely interactive effects arising from the Proposed Development on the historic environment is provided in Volume 4, Chapter 5: Inter-Related Effects, of the PEIR.

2.14 Summary of Impacts, Mitigation Measures and Monitoring

2.14.1 Information on the historic environment within the study area was collected through desk-based reviews of available data, along with an ongoing programme 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.

2.14.2 **Table 2.17** presents a summary of the potential impacts and residual effects in respect of 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 and the Alverdiscott Substation Connection Development) 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 and the Alverdiscott Substation Connection Development 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 and the Alverdiscott Substation Connection Development on the character of the historic landscape.

2.14.3 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 the change within the settings of designated heritage assets during construction of the converter stations and the Alverdiscott Substation Connection Development; and
- an effect of up to **major adverse** significance arising from the change within the settings of designated heritage assets during operation and maintenance of the converter stations and the Alverdiscott Substation Connection Development. The impact may reduce over time as any proposed landscape planting reaches maturity.

2.14.4 **Table 2.19** presents a summary of the potential cumulative impacts 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; and
- the impact of construction, operation and maintenance, and decommissioning of the converter stations and the Alverdiscott Substation Connection Development on designated heritage assets as a result of change within their setting.

2.14.5 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 the change within the settings of designated heritage assets during construction of the converter stations and the Alverdiscott Substation Connection Development; and
- an effect of up to **major adverse** significance arising from the change within the settings of designated heritage assets during operation and maintenance of the converter stations and the Alverdiscott Substation Connection Development. The impact may reduce over time as any proposed landscape planting reaches maturity.

2.14.6 No potential transboundary impacts have been identified in regard to effects of the Proposed Development.

Table 2.17: Summary of potential environmental effects

Receptor	Sensitivity of Receptor	Description of Impact	Short/Medium/Long Term	Magnitude of Impact	Significance of Effect	Significant /Not Significant	Notes
Construction Phase							
Buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest	Unknown	Loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest	Permanent	Up to Medium	Unknown	Unknown	Assessment will be presented in the ES following completion of surveys.
Designated heritage assets within the 1 km settings study area	Up to High	Harm to the significance of designated heritage assets as a result of change within their setting	Short term	Negligible	Minor adverse	Not significant	
Designated heritage assets within the 5 km settings study area	Up to High	Harm to the significance of designated heritage assets as a result of change within their setting	Medium term	Medium	Up to Major adverse	Significant	Assessment will be updated in the ES following receipt of detailed design information.
Historic landscape	Low	Harm to the character of the historic landscape	Medium term	Low	Up to Minor adverse	Not significant	
Operational Phase							
Designated heritage assets within the 5 km settings study area	Up to High	Harm to the significance of designated heritage assets as a result of	Long term	Medium	Up to Major adverse	Significant	Assessment will be updated in the ES following receipt of detailed design information. The impact may reduce

XLINKS MOROCCO – UK POWER PROJECT

Receptor	Sensitivity of Receptor	Description of Impact	Short/Medium/Long Term	Magnitude of Impact	Significance of Effect	Significant /Not Significant	Notes
		change within their setting					over time as any proposed landscape planting reaches maturity.
Historic landscape	Low	Harm to the character of the historic landscape	Long term	Low	Up to Minor adverse	Not significant	The impact may reduce over time as any proposed landscape planting reaches maturity.
Decommissioning Phase							
Designated heritage assets within the 1 km settings study area	Up to High	Harm to the significance of designated heritage assets as a result of change within their setting	Short term	No change	No effect	Not significant	To be reviewed within the Onshore Decommissioning Plan.
Designated heritage assets within the 5 km settings study area	Up to High	Harm to the significance of designated heritage assets as a result of change within their setting	Short term	Negligible	Minor adverse	Not significant	To be reviewed within the Onshore Decommissioning Plan.
Historic landscape	Low	Harm to the character of the historic landscape	Short term	Low	Up to Minor adverse	Not significant	To be reviewed within the Onshore Decommissioning Plan.

Table 2.19: Summary of potential cumulative environmental effects

Receptor	Sensitivity of Receptor	Description of Impact	Short/Medium/Long Term	Magnitude of Impact	Significance of Effect	Significant/Not Significant	Notes
Construction Phase							
Designated heritage assets within the 5 km settings study area	Up to High	Harm to the significance of designated heritage assets as a result of change within their setting	Medium term	Medium	Up to Major adverse	Significant	Assessment will be updated in the ES following receipt of detailed design information.
Operational Phase							
Designated heritage assets within the 5 km settings study area	Up to High	Harm to the significance of designated heritage assets as a result of change within their setting	Long term	Medium	Up to Major adverse	Significant	Assessment will be updated in the ES following receipt of detailed design information.
Decommissioning Phase							
Designated heritage assets within the 5 km settings study area	Up to High	Harm to the significance of designated heritage assets as a result of change within their setting	Short term	Medium	Up to Major adverse	Significant	Assessment will be updated in the ES following receipt of detailed design information.

2.15 Next Steps

- 2.15.1 The ongoing programme of geophysical survey would be completed, where practicable and where legal access is available. This would be followed by the completion of the programme of archaeological trial trenching, where practicable and where legal access is available. This latter phase of fieldwork would take place at selected locations agreed in advance with the relevant stakeholders. These intrusive investigations are likely to be undertaken in time for the results to be considered within the ES submitted as part of the application for development consent, but this depends on suitable ground conditions and available access for the work. A detailed walkover survey will be undertaken in areas where geophysical survey and/or trial trenching has not been possible.
- 2.15.2 The results of the archaeological and geoarchaeological fieldwork along with the review of additional data sources and more detailed examination of sources already consulted will enable the preparation of an updated desk-based assessment. The updated desk-based assessment will then form an appendix to the ES submitted as part of the application for development consent.
- 2.15.3 Following the development of preliminary designs for the converter stations and the Alverdiscott Substation Connection Development, the preparation of a revised ZTV will allow the identification of designated heritage assets whose setting may be affected by their construction, operation and maintenance, and decommissioning. Further site visits will be undertaken to selected designated heritage assets in order to undertake the settings assessment to the required level. Visualisations may need to be produced to assist with the assessment of impacts and effects. The results of this element of the further work may feed into the more detailed designs for the converter stations and the Converter Site and the Alverdiscott Substation Connection Development.

2.16 References

ClfA (2020a) Standard and guidance for historic environment desk-based assessment. Available at: https://www.archaeologists.net/sites/default/files/ClfAS%26GDBA_4.pdf (Accessed: December 2023).

ClfA (2020b) Standard and Guidance for archaeological geophysical survey. Available at: https://www.archaeologists.net/sites/default/files/ClfAS%26GGeophysics_2.pdf (Accessed: December 2023).

ClfA (2023a) Standard for archaeological field evaluation. Available at: <https://www.archaeologists.net/sites/default/files/Standard%20for%20archaeological%20field%20evaluation.pdf> (Accessed December 2023).

ClfA (2023b) Universal guidance for archaeological field evaluation. Available at: <https://www.archaeologists.net/sites/default/files/Universal%20guidance%20for%20archaeological%20field%20evaluation.pdf> (Accessed December 2023).

Department for Energy Security & Net Zero (2023a) Overarching National Policy Statement for Energy (NPS EN-1). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147380/NPS_EN-1.pdf (Accessed: November 2023).

Department for Energy Security & Net Zero (2023b) National Policy Statement for Renewable Energy Infrastructure (NPS EN-3). Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147382/NPS_EN-3.pdf (Accessed: November 2023).

Department for Energy Security & Net Zero (2023c) National Policy Statements for Electricity Networks Infrastructure (NPS EN-5). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147384/NPS_EN-5.pdf (Accessed: November 2023).

Department for Levelling Up, Housing and Communities (2023) National Planning Policy Framework. Available at: <https://www.gov.uk/guidance/national-planning-policy-framework> (Accessed: December 2023).

Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities and Local Government (2023) Planning Practice Guidance. Available at: <https://www.gov.uk/government/collections/planning-practice-guidance> (Accessed: December 2023).

English Heritage (2008) Conservation Principles, Policies and Guidance for the sustainable management of the historic environment. Available at: <https://historicengland.org.uk/images-books/publications/conservation-principles-sustainable-management-historic-environment/> (Accessed December 2023).

Highways England, Transport Scotland, Welsh Government, Department for Infrastructure (2020a) Design Manual for Roads and Bridges (DMRB) LA 106, Cultural heritage assessment, Revision 1, Available at: [LA 106 revision 1 Cultural heritage assessment-web \(1\).pdf](#) (Accessed: December 2023).

Highways England, Transport Scotland, Welsh Government, Department for Infrastructure (2020b) Design Manual for Roads and Bridges (DMRB) LA 104, Environmental assessment and monitoring, Revision 1, Available at: <https://www.standardsforhighways.co.uk/prod/attachments/0f6e0b6a-d08e-4673-8691-cab564d4a60a?inline=true>

Historic England (2015) Historic Environment Good Practice Advice in Planning: 2 Managing Significance in Decision-Taking in the Historic Environment. Available at: <https://historicengland.org.uk/images-books/publications/gpa2-managing-significance-in-decision-taking/> (Accessed: December 2023).

Historic England (2017) The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (Second Edition). Available at: <https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/heag180-gpa3-setting-heritage-assets/> (Accessed: December 2023).

IEMA, Institute of Historic Building Conservation and ClfA (2021) Principles of Cultural Heritage Impact Assessment in the UK. Available at <https://www.iema.net/resources/blog/2021/07/20/launch-of-principles-of-cultural-heritage-impact-assessment> (Accessed: December 2023).