XLINKS' MOROCCO-UK POWER PROJECT

Environmental Statement

Volume 4, Appendix 2.2: Landscape and Seascape Character Baseline Technical Report

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For Issue

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Prepared by:

RPS

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Xlinks 1 Limited

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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 carried out by National Grid Electricity Transmission. This does not form part of the Proposed Development, however, it is considered cumulatively within the Environmental Impact Assessment as it is necessary to facilitate connection to the national grid.
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.
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.
Essential setting/setting	An area that is considered (by Natural England or a local planning authority) to be the setting for a nationally designated landscape. It has no statutory weight.
HVDC Cables	The High Voltage Direct Current cables which would bring electricity to the UK converter stations from the Moroccan converter stations.
Landfall	The proposed area in which the offshore cables make landfall in the United Kingdom (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Cornborough Range, Devon, between Mean Low Water Springs and the transition joint bays inclusive of all construction works, including the offshore and onshore cable routes, and landfall compound(s).
Landscape	An area, as perceived by people, the character of which is a result of the action and interaction of natural and/or human factors.
Landscape character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Landscape character assessment	The process of identifying and describing variation in the character of the landscape and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscape distinctive. The process results in the production of a Landscape Character Assessment.
Landscape character types	The process of identifying and describing variation in the character of the landscape and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscape distinctive. The process results in the production of a Landscape Character Assessment.
National Landscape	An area of land designated for its natural features of outstanding beauty. The land is protected by the Countryside and Rights of Way Act 2000, in order to conserve and enhance its natural beauty. Previously referred to as an Area of Outstanding Natural Beauty.
Onshore HVDC Cable Corridor	The proposed corridor within which the onshore High Voltage Direct Current cables would be located.
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).

Term	Meaning
Proposed Development	The element of Xlinks' Morocco-UK Power Project within the UK. The Proposed Development covers all works required to construct and operate the offshore cables (from the UK Exclusive Economic Zone to Landfall), Landfall, onshore Direct Current and Alternating Current cables, converter stations, and highways improvements.
Seascape character areas	An area of sea with distinct, recognisable and consistent pattern of elements that makes one area of the sea different from another, rather than better or worse.
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').
Zone of Theoretical Visibility	A map, usually digitally produced, showing areas of land within which, a development is theoretically visible.

Acronyms

Acronym	Meaning
ES	Environmental Statement
LCA	Landscape Character Area
LCT	Landscape Character Type
LSVIA	Landscape, Seascape and Visual Impact Assessment
NCA	National Character Area
ZTV	Zone of Theoretical Visibility

Units

Units	Meaning
°	Degree
km	Kilometre
m	Metre

1 LANDSCAPE AND SEASCAPE CHARACTER BASELINE TECHNICAL REPORT

1.1 Introduction

1.1.1 This document forms Volume 4, Appendix 2.2 to Volume 4, Chapter 2: Landscape, Seascape and Visual Resources of the Environmental Statement (ES), prepared for the Xlinks' Morocco UK Power Project (the 'Project'). For ease of reference, the UK elements of the Project are referred to as the 'Proposed Development', which is the focus of this ES. The ES presents the findings of the Environmental Impact Assessment process for the Proposed Development.

1.1.2 This document provides the landscape and seascape character baseline that has informed the Landscape and Visual Impact Assessment (LSVIA) contained within Volume 4, Chapter 2: Landscape, Seascape and Visual Resources of the ES.

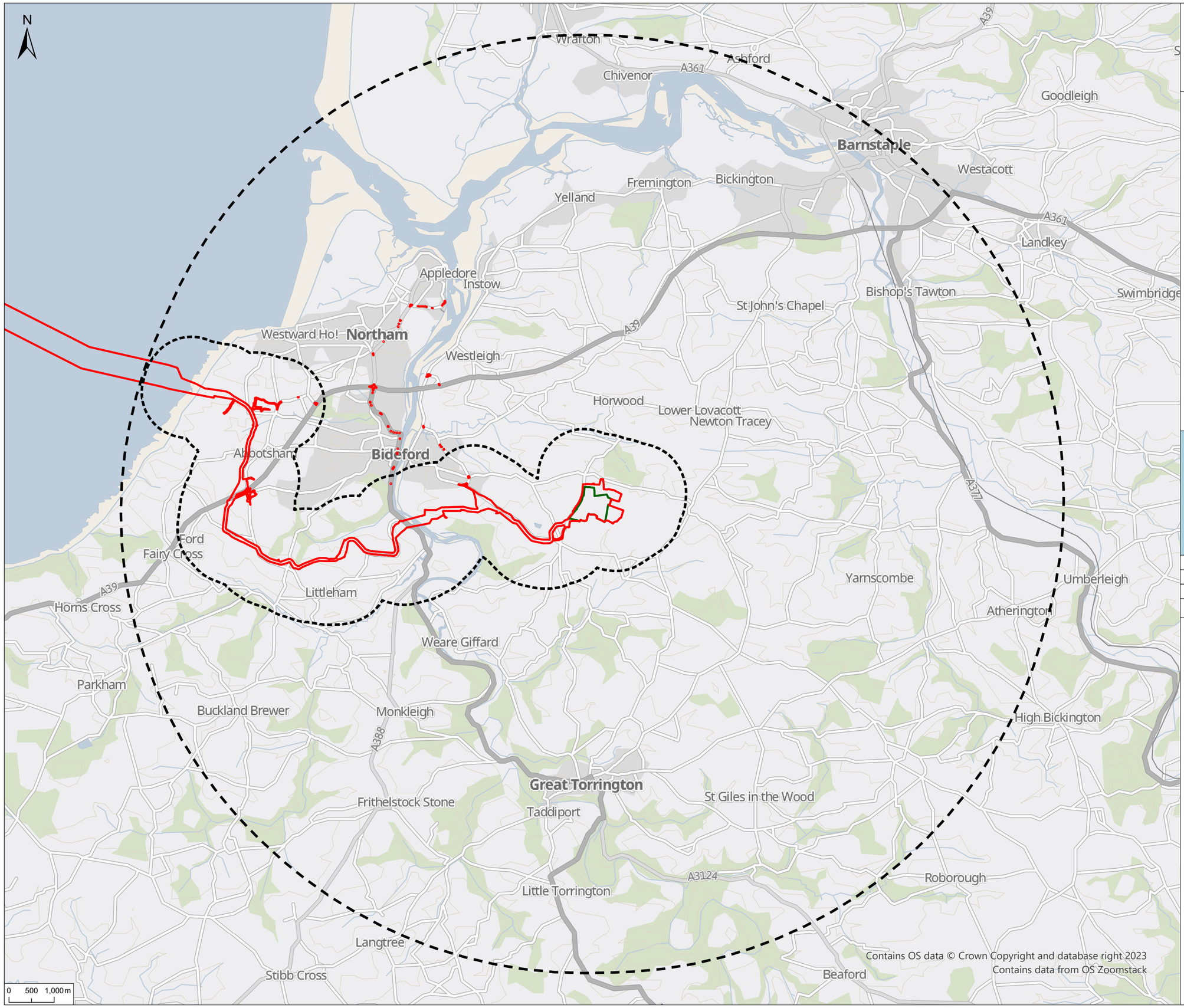
1.2 Methodology

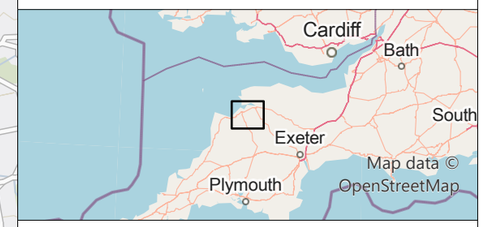
Study Area

1.2.1 The LSVIA study area (referred to as the 'study area') for the Proposed Development is shown in **Figure 2.2.1**. The study area has been based on the findings of an analysis of the Zone of Theoretical Visibility (ZTV). The study area comprises the area of land to be temporarily and permanently occupied during the construction, operation and maintenance and decommissioning of the Proposed Development together with the following:

- 1 km buffer from the Landfall and Onshore HVDC Cable Corridor, which includes areas of sea; and
- 10 km from the proposed Converter Site, which includes areas of sea.

1.2.2 The buffers used to define the LSVIA for the converter stations study area and the cable corridor study area are based on the maximum design scenario set out in Volume 4, Chapter 2: Landscape, Seascape and Visual Resources, of the ES.





Notes
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Legend

- Order Limits
- Converter Site
- 1km Cable Corridor LSVIA Study Area
- 10km Converter Stations LSVIA Study Area

Rev	Description	By	CB	Date
P01	FINAL	SHB	MB	06.11.24

Client: Xlinks 1 Limited

Project: Xlinks' Morocco-UK Power Project

Title: LSVIA Study Area

Status: FINAL

Scale @ A3: 1:80,000

Date Created: Nov 2024

Figure Number: **2.2.1**

Rev: **P01**

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Desk Study

1.2.3 Information on seascape and landscape character within the study area was collected through a detailed desktop review of existing studies and datasets. These sources are summarised within **Table 1.1**.

Table 1.1: Summary of key desktop sources

Title	Year	Author
National Character Area (NCA) 149: The Culm	2013	Natural England
The Devon Landscape – An appraisal of Devon's landscape at the beginning of the 21st Century	2002	Devon County Council
Devon's landscape character assessment	2024	Devon County Council
Joint landscape character assessment for North Devon and Torridge Districts	2023	Land Use Consultants
North Devon and Exmoor Seascape Character Assessment	2015	Land Use Consultants
North Devon Coast AONB Management Plan 2019-2024	2019	North Devon Coast National Landscape Partnership

1.3 Desk Study – Baseline Characterisation

1.3.1 This section provides summary descriptions of landscape and seascape character areas relevant to the Proposed Development. These descriptive units provide the structure of this section. The character descriptions are drawn from published assessments and are supported by observations in the field. The extent of the study area has been used to identify those character areas and designated landscapes which have the potential to experience direct and indirect impacts as a result of the Proposed Development. The special qualities and special features of the North Devon Coast National Landscape and North Devon Biosphere Reserve are also set out below.

1.4 Designated Landscapes

North Devon UNESCO World Biosphere Reserve

1.4.1 The Proposed Development does not lie within the Core Area of the Biosphere Reserve (North Devon Biosphere, 2014, page 2). The entirety of the Proposed Development and study area for the converter stations lie within the Biosphere Reserve Transition Zone, which covers *'the whole of the catchments of the Rivers Taw and Torridge and the offshore marine areas stretching out to Lundy and beyond'* (North Devon Biosphere, 2014, page 4). It is not clear whether the Proposed Development lies within the Buffer Zone to the Core Area. However, it is presumed that as the Onshore HVDC Cable Corridor is routed through the National Landscape, this element of the Proposed Development does, as the definition of a Buffer Zone includes, adjoin areas with supporting designations. Biospheres have three primary functions: conservation, sustainable development, and, knowledge generation and sharing. The designation does not prohibit development.

1.4.2 The special features of the North Devon Biosphere Reserve include a number under the collective term '*Diverse wildlife and landscape'* (North Devon Biosphere,

2014, page 5). These special features that have the potential to be affected by the Proposed Development are:

- characteristic landscapes such as Culm grasslands and Devon hedgerows;
- dramatic coastal landscapes of North Devon Coast National Landscape;
- special western oak woodlands with a plethora of pollution-sensitive lichens; and
- high level of tranquillity and nocturnal darkness in the area.

1.4.3 The Proposed Development within the buffer zone (the Landfall and part of the Onshore HVDC Cable Corridor) has the potential for significant effects during the construction phase only. However, these effects would be temporary.

North Devon Coast National Landscape

1.4.4 The offshore HVDC Cables make Landfall within the North Devon Coast National Landscape (formerly Area of Outstanding Natural Beauty). The offshore HVDC Cables would connect to the onshore HVDC Cables within transition joint bays, via trenchless techniques. The transition joint bays would be situated behind a locally raised area of ground in land currently used as pasture. The Onshore HVDC Cable Corridor crosses three field boundaries, in trenches, before leaving the National Landscape. The Landscape Character Type that the Landfall and Onshore HVDC Cable Corridor pass through within the National Landscape is 5B: Coastal Undulating Farmland. The land would be returned to pasture and the hedgerows replanted following the completion of construction works.

1.4.5 The special qualities of the North Devon Coast National Landscape, relevant to landscape and visual resources, that might be affected during the temporary construction works are:

- *'Diversity of scenery contained within a small area, including some of the finest cliff scenery in the country;*
- *Panoramic seascape, with seaward views to Lundy within Atlantic Ocean, across the Bristol Channel to Wales and along the coastline. Views are of landscape and seascape devoid of human influence;*
- *Panoramic views of a rolling landscape of pastoral farmland wooded combes and valleys from elevated inland areas;*
- *Wild coastal scenery. In the north, hogsback cliffs of varying heights; in the south high, rugged cliffs, dramatic rock formations, exposed headlands, wave cut platforms and rocky coves;*
- *A strong sense of tranquillity and remoteness where coastal road is located away from the coastline; and*
- *Dark night skies, particularly in the Hartland Peninsula.'* (North Devon Coast National Landscape Partnership, 2019, pages 9 to 12).

1.4.6 None of the above special qualities of the North Devon Coast National Landscape would be permanently affected as a result of the Proposed Development. The Onshore HVDC Cable Corridor would be installed using trenched and trenchless techniques, which once reinstated, would not be visible above ground. However, they have been taken forward to the assessment as the National Landscape would be directly affected during the construction phase.

1.5 National Landscape Character

1.5.1 At the national level, the Proposed Development is wholly located within National Character Area (NCA) 149: The Culm (NCA Profile:149. The Culm - NE389 (Natural England, 2013). The converter stations would directly impact NCA 149, during all three phases of the Proposed Development (construction, operation and maintenance, as well as decommissioning). The Landfall and Onshore HVDC Cable Corridor would directly impact NCA 149 during the construction phase, to a much lesser extent the operation and maintenance phase as the cables are underground, and during decommissioning an insignificant extent as the cables would be cut and left *in situ*.

NCA149: The Culm

1.5.2 The key characteristics of NCA 149 relevant to the Proposed Development and the study area include the following.

- '*Rolling, open plateaux – in places steeply undulating – with many small but deep valleys, fast-flowing rivers and streams that drain the area (principally to the west and south), and wide views across a remote landscape.*
- *A consistent geology, underlain by the dramatically folded mudstones and sandstones of the Culm Group.*
- *Heavy, poorly drained soil, which supports a pastoral landscape of low agricultural quality but high nature conservation interest.*
- *Contrasting enclosed, wooded valleys of the Taw, cutting through the ridges with open valley floors. Roads, railways, and bridges provide communication along these valleys.*
- *Little tree cover on the plateau, except for occasional wind-sculpted hedgerow and farmstead trees, and conifer blocks. Woodland is more frequent in the shelter of valleys and combes running to the sea, and where associated with estates.*
- *Mosaic of field patterns reflecting the historic land use of the Culm, surrounded by characteristic hedgebanks.*
- *Scattered hamlets and farms in cob and whitewashed stone, connected by narrow winding, sunken lanes.*
- *Villages are most often closely grouped collections of simple, even austere cottages huddled around defendable central squares or burys.*
- Spectacular coastline of high cliffs and estuarine features, nationally important geological features, and narrow wooded combes' (Natural England, 2013).

1.5.3 The extent of NCA 149 within the LSVIA study areas are shown on **Figure 2.2.2**.

NCA 145: Exmoor

1.5.4 The Landfall, Onshore HVDC Cable Corridor and Converter Site do not lie within the National Character Area 145: Exmoor. The ZTV does not extend into NCA 145 and so it is not indirectly affected either. Therefore, NCA 145 has not been taken forward to the assessment phase.

Number	Seascape Name
18	Braunton Burrows and Saunton Coast
19	Taw-Torridge Estuary
20	Northam Burrows and Westward Ho!
21	Abbotsham Coast
22	Clovelly Coast
23	Inner Bideford Bay

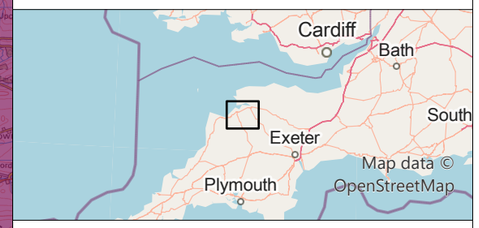
Notes
1. This plan is scaled at paper size A3. If received electronically it is the recipients responsibility to print to the correct scale. Only written dimensions should be used.

Legend

- Order Limits
- Converter Site
- 1km Cable Corridor LSVIA Study Area
- 10km Converter Stations LSVIA Study Area
- North Devon and Exmoor Seascape Character Assessment

Devon Character Areas

- Bideford Bay Coast
- Codden Hill and Wooded Estates
- Exmoor Fringe
- High Culm Ridges
- North Devon Downs
- Taw Valley
- Taw-Torridge Estuary
- Torridge Valley
- West Torridge Upland Farmland
- Western Culm Plateau



Rev	Description	By	CB	Date
P01	FINAL	SHB	JT	19.11.24

Client: Xlinks 1 Limited

Project: Xlinks' Morocco-UK Power Project

Title: Devon Landscape Character Areas

Status: FINAL

Scale @ A3: 1:80,000

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Figure Number: **2.2.2**

Rev: **P01**

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1.6 North Devon and Exmoor Seascape Character Assessment

1.6.1 The construction works at the Landfall would also directly affect the following Seascape Character Area (SCA) (Land Use Consultants, 2015) shown on **Figure 2.2.3**. This is because the offshore HVDC Cables would be pulled through the Landfall via trenchless techniques and assisted by construction and support vessels located within the seascape area, below:

- SCA 21: Abbotsham Coast.

SCA 21: Abbotsham Coast

1.6.2 The Abbotsham Coast is the only SCA that is directly affected by the Proposed Development, above the surface. Other SCAs would be indirectly affected (i.e., the above surface Proposed Development will be visible from them, but not located in them). However, as this would be during the construction phase only, there is no potential for these other SCAs to be significantly affected and they are not taken forward to the assessment stage.

1.6.3 The relevant key characteristics of SCA 21 are as follows.

- '*Undulating coastline with steep cliffs rising to over 90m in the south-west of the SCA, but dropping to a lower and more rounded profile in the north-east, backed by undulating coastal farmland.*
- *Pastoral and arable fields extending to and between the cliff tops in places, including unimproved grasslands.*
- *Characteristic fine pebble ridge at cliff bases, fronted by a wide rocky foreshore (wave cut platform), with beds trending seawards to form biogenetic reefs.*
- *Gradual transition from a remote, rugged seascape in the south-west to gentler, more undulating and pastoral coastal scenery where the cliffs drop to shore level in places.'* (Land Use Consultants, 2015).

SCA 18: Braunton Burrows and Saunton Coast

1.6.4 Seascape Character Area 18: Braunton Burrows and Saunton Coast lies within the converter stations LSVIA study area, but would not be directly affected, due to the distance from the proposed Converter Site. It would not be significantly affected by the Proposed Development and so is not taken forward to the assessment stage.

SCA 19: Taw-Torridge Estuary

1.6.5 Seascape Character Area 19: Taw Torridge Estuary lies within the converter stations study area, but would not be directly affected, due to the distance from the Converter Site and the nature of the valley. It will not be significantly affected by the Proposed Development and so is not taken forward to the assessment stage.

Devon Landscape Character Types

- 1D: Estate wooded ridges and hilltops
- 1F: Farmed lowland moorland and Culm grassland
- 3A: Upper farmed and wooded valley slopes
- 3C: Sparsely settled farmed valley floors
- 3G: River valley slopes and combes
- 3H: Secluded valleys
- 4A: Estuaries
- 4B: Marine levels and coastal plains
- 4D: Coastal slopes and combes
- 4E: Extensive inter-tidal sands
- 4F: Dunes
- 4H: Cliffs
- 5A: Inland elevated undulating land
- 5B: Coastal undulating farmland
- 5C: Downland
- 5D: Estate wooded farmland
- 7: Main cities and towns

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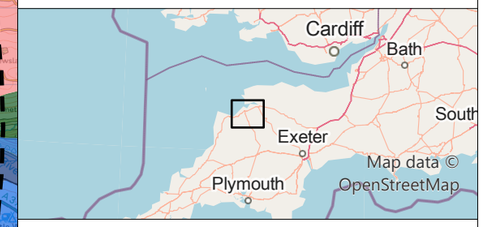
Legend

- Order Limits
- Converter Site
- 1km Cable Corridor LSVIA Study Area
- 10km Converter Stations LSVIA Study Area



Rev	Description	By	CB	Date
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Client: Xlinks 1 Limited

Project: Xlinks' Morocco-UK Power Project

Title: North Devon and Torridge Landscape and Seascape Character Types

Status	Scale @ A3	Date Created
FINAL	1:80,000	Nov 2024

Figure Number: **2.2.3**

Rev: **P01**

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SCA 20: Northam Burrows and Westward Ho!

1.6.6 Seascape Character Area 20: Northam Burrows and Westward Ho! lies outside the 1 km study area for the Landfall and Onshore HVDC Cable Corridor. It would not be directly affected and lies too far from the Converter Site to have the potential to experience significant effects from them. Due to the temporary nature of the construction works in the sea and at the Landfall, there is no potential for indirect significant effects on this SCA and so it is not taken forward to the assessment stage.

1.7 Devon County Landscape Character Areas

1.7.1 The Devon's Landscape Character Assessment (Devon County Council, 2024) and interactive map, provides information on Devon landscape character areas (LCA). Those LCAs that would be directly affected by the Proposed Development are listed below and shown on **Figure 2.2.3**.

- Bideford Bay Coast LCA.
- Torridge Valley LCA.
- High Culm Ridges LCA.

Bideford Bay Coast LCA

1.7.2 Much of the Onshore HVDC Cable Corridor crosses through this character area, from the Landfall to approximately 2 km to the west of the River Torridge, where it enters the Torridge Valley LCA for a short section, before crossing the Bideford Bay Coast LCA once again. The Onshore HVDC Cable Corridor leaves the Bideford Bay Coast LCA approximately 0.75 km to the southwest of the River Torridge.

1.7.3 The key characteristics of relevance to the proposed development are as follows.

- '*Underlying Culm Measures geology, with strata running east-west, parallel to the coast, giving the cliffs a tendency to landslips, and a distinctive rounded 'hog's back' profile.*
- *Coastal outcrop of Permian Sandstone between Portledge and Peppercombe, visible as a distinctive red patch on the cliffs.*
- *Striking coastal landforms including Blackchurch Rock and truncated waterfall below Windbury Head.*
- *A relatively sheltered bay, with gentler, more rounded coastal scenery than elsewhere along the coast.*
- *Extensive coastal oak woodlands, containing important lichens, ferns and ground flora within the sheltered combes; bluebells a dominant feature in spring.*
- *Southern and eastern areas dominated by agriculture on medium-quality soils, with rolling, irregularly-shaped pastoral and arable fields extending to the cliff tops.*

- *Fields (including medieval strip-patterns around Woolfardisworthy) divided by hedgerows and banks with wind-sculpted hedgerow trees; field boundaries less frequent in the north-east around Abbotsham.*
- *Semi-natural habitats include inaccessible shoreline, wooded and heathy cliffs, pockets of unimproved grassland and marshland (including Culm grassland), road verges and species-rich hedgerows and hedgebanks, including fern habitats.*
- *Impressive Iron Age defensive sites, including Clovelly Dykes and promontory forts at Windbury Head, Peppercombe Castle and Bucks Mills.*
- *Historic coastal features including quays, lime kilns and Clovelly harbour; inland historic parkland contributes to the historic character of the landscape and provides rich wildlife habitat.*
- *Historic railway linking Bideford, Westward Ho! and Appledore (1904-1917) through the Abbotsham cliff area, today forming part of the coastal path out of Westward Ho!.*
- *Coastal settlement of scattered farms and picturesque linear villages (Clovelly and Bucks Mills) running down steep valleys to the sea; nucleated villages of Woolfardisworthy and Parkham further inland.*
- *Sunken rural lanes with exceptionally high hedgebanks connecting villages, contrasting with the A39 which runs through the area.*
- *Attractive landscape with pleasing compositions of woodland, farmland and coastal scenery.*
- *Open seascapes, including views of Lundy Island and across Bideford Bay to the Taw-Torridge estuary*.' (Devon County Council, 2024).

Torridge Valley LCA

1.7.4 The Onshore HVDC Cable Corridor first enters this LCA approximately 2 km to the west of the River Torridge. The onshore HVDC Cable Corridor briefly enters the Bideford Bay Coast Landscape Character Type (LCT), before crossing into the Torridge Valley LCA once again, approximately 0.75 km to the southwest of the River Torridge. The Onshore HVDC Cable Corridor would cross underneath the River Torridge and emerges approximately 0.5 km on the eastern side of the river, where it enters the High Culm Ridges LCA.

1.7.5 The key characteristics of the Torridge Valley LCA that are relevant to the Proposed Development are as follows.

- '*Underlying Culm geology of mudstones, sandstones and siltstones incised by River Torridge and tributaries.*
- *Steep valley sides enclosing a wide main valley floor with narrower tributary valley floors.*
- *Main River Torridge deep and fast flowing, with a convoluted course and tightly meandering channel; tidal as far as Landcross, with mud flats exposed at low tide.*
- *Small tributary valley south of Bideford dominated by Jennetts Reservoir.*
- *Valley sides well-clothed in deciduous woodland which dominates skylines; some conifer plantations, particularly in the middle and upper reaches of the main valley; traditional orchards around villages.*

- *Alluvial soils on valley floor generally used for pastoral agriculture, with a mixture of pastoral and arable agriculture on higher land.*
- *Fields generally semi-regular in shape comprising a mixture of medieval, post-medieval and modern enclosures based on earlier medieval fields; mainly enclosed by hedgerows or hedgebanks, but some loss of field boundaries in arable areas.*
- *Extensive semi-natural habitats including ancient broadleaved woodland on valley sides; water meadows and riparian habitats on valley floors; tidal mud-flats and salt marshes near the estuary; and unimproved grassland commons around Great Torrington.*
- *Numerous historic features associated with the river, including weirs, mills, bridges, disused canal and railway line (now the 'Tarka Trail').*
- *Numerous, prominent archaeological sites – including Iron Age defences at Castle Hill, Hembury Castle and Berry Castle, and the medieval ruins of Frithelstock Priory.*
- *Estate parkland on valley floor that adds to landscape's serenity and sense of time-depth.*
- *Limited settlement within the valley floor, most farms and villages being situated on the valley sides, where village church towers may form prominent and distinctive features.*
- *Great Torrington in a commanding position overlooking a crossing point of the River Torridge.*
- *Farmhouses that often of white rendered cob/ stone with thatched or slate roofs.*
- *Major roads and transport routes (e.g. A386 and the former Okehampton-Bideford railway line) generally follow the main valley floor, while upper reaches and tributary valleys have winding hedge-banked lanes with narrow stone bridges.*
- *Strong contrasts between enclosed wooded valleys and higher open farmland on either side which offers commanding views (e.g. from Great Torrington)*.' (Devon County Council, 2024).

High Culm Ridges LCA

1.7.6 The Onshore HVDC Cable Corridor enters this LCA approximately 0.5 km to the east of the River Torridge. It crosses the LCA in an east then south-easterly direction, before changing direction to cross northeast towards the existing Alverdiscott Substation, to the south of the hamlet of Webbery Barton and west of the village of Alverdiscott. The two proposed converter stations would be located in fields to the west and northwest of the Alverdiscott Substation.

1.7.7 The key characteristics of the High Culm Ridges LCA that are relevant to the Proposed Development are as follows.

- '*Underlying Cum Measures geology creating a series of east-west ridges, rising towards the south and supporting poorly-drained soil.*
- *Ridges divided by small spring-fed tributary streams, flowing into the Torridge (to the west) or the Taw (to the east).*

- *Extensive linear deciduous woodlands and some orchards in valleys; occasional windswept trees and hilltop clumps of beech; and blocks of coniferous plantation on higher ground.*
- *Farmland generally in pastoral use, with some areas of arable on better-quality land*. [Note: for the land within the application boundary for the Xlinks project there is, on balance, more arable use than pastoral].
- *Complex pattern of fields, generally with smaller, irregular fields around villages and on valley sides, and larger, more regular fields (suggesting more recent enclosure) on areas of higher land.*
- *Some largely intact historic field systems (e.g. around Roborough and Hiscott) adding to the time-depth of the landscape.*
- *Fields generally divided by hedgerows or hedgebanks in variable condition: some well-managed, others grown-out or closely flailed.*
- *Extensive areas of Culm grassland and semi-natural woodland habitat; farmland also supports a variety of mammals and bird species.*
- *Straight roads along high ground (often associated with prehistoric barrows) and a network of deep lanes and tracks on valley sides, indicating the area's importance as a routeway for millennia.*
- *Many other historic landscape features including bridges, medieval castles, prehistoric earthworks and numerous manor houses.*
- *Parkland influence on landscape character in the north-west of the area around Tapeley Park.*
- *Settlement pattern of nucleated villages, generally on high ground, often clustered around a crossroads or bridge, with square church towers forming prominent landscape features.*
- *Scattered farmsteads, often at the end of long access tracks; many with vernacular features including whitewashed stone/ cob walls and slate or locally distinctive thatched roofs, e.g. around Tawstock.*
- *Long views from high ground across and into the Taw and Torridge valleys, and to Dartmoor or Exmoor, as well as views of the sea and Taw-Torridge estuary from the north of the area*.' (Devon County Council, 2024).

1.7.8 The Devon County LCAs, provide the broader context for the North Devon and Torridge LCTs that lie within the study areas of the Proposed Development, in the same way as the national landscape character areas do. As such, a high-level commentary will be given as to the assessment of the effects on these NCAs and LCAs, but the LSVIA will concentrate on the assessment of effects on the North Devon and Torridge LCTs, as these contain the most detailed, published, descriptions of the landscape available.

1.8 North Devon and Torridge District Landscape Character Areas

1.8.1 A Joint Landscape Character Assessment, undertaken by Land Use Consultants, was updated in 2023 (Land Use Consultants, 2023). The Joint Landscape Character Assessment identifies 22 distinct LCTs throughout North Devon and Torridge. Those located within the study areas are illustrated on **Figure 2.2.3**.

Directly affected LCTs

1.8.2 The North Devon District and Torridge District LCTs that are directly affected by the Proposed Development during the construction, operation and maintenance or decommissioning phases of the Proposed Development are (from the west/Landfall):

- LCT 4H: Cliffs;
- LCT 5B: Coastal Undulating Farmland;
- LCT 3H: Secluded Valleys;
- LCT 4A: Estuaries;
- LCT 3G: River Valley Slopes & Combes;
- LCT 5A: Inland Elevated Undulating Land; and
- LCT 3A: Upper Farmed Wooded Valley Slopes
- LCT 1F: Farmed Lowland Moorland and Culm Grassland.

1.8.3 The relevant characteristics, landscape elements and features of these LCTs, that are directly affected are listed below.

LCT 4H: Cliffs

1.8.4 It is only the Landfall itself that is located within LCT 4H. The relevant key characteristics of LCT 4H are as follows.

- '*A largely undeveloped coastline of steep rocky or vegetated cliffs of varying height, often punctuated by dramatic features such as waterfalls, rocky coves and features such as stacks and sea arches.*
- *Distinctive and internationally renowned exposed rock stratifications often clearly visible.*
- *Extensive and dramatic views, reaching out to sea (often to Lundy), along the coastline and inland over ridgelines.*
- *Occasional minor combes draining to the sea often lined by ancient sessile oak woodland of high nature conservation interest These provide shelter and contrast to the open cliffs.*
- *Rough grazing land on sloping cliff tops, with field boundaries of post-and-wire fencing or stone-faced hedgebanks.*
- *Rich in semi-natural habitats, including mosaics of maritime grassland, heath, and scrub of national and international importance along the cliff tops and sloping faces. The cliffs support important breeding colonies of seabirds."*
- *Overall, a 'wild' and remote landscape with high levels of tranquillity. Access is largely restricted to the South West Coast Path and tracts of Open Access Land on cliff tops*.'

LCT 5B: Coastal Undulating Farmland

1.8.5 From the Landfall, the offshore HVDC Cables would join to the onshore HVDC Cables via transition joint bays and then cross through LCT 5B until approximately 2 km west of the River Torridge, where it crosses into LCT 3H, before entering

into LCT 5B again. It leaves LCT 5B approximately 0.75 km to the west of the River Torridge. The relevant key characteristics are as follows.

- '*Strongly rolling landscape with prominent ridges and hilltops, influenced by the close proximity of the sea.*
- *Underlying geology of mudstones and siltstones with bands of more resistant sandstone creating the undulating landform.*
- *Pervading maritime influence with long coastal views, including to development at coastal settlements and to the north-west peninsula of the North Devon coastline).*
- *Strong pattern of regular medium-large fields of post-medieval and modern origin, interspersed with significant areas of smaller curving or medieval strip fields.*
- *Fields bounded by mixed species Devon hedges with flower-rich banks and some sections of stone facing. Hawthorn, hazel, elm and/or beech are locally characteristic. Patches of gorse reinforce a sense of exposure.*
- *Predominantly pastoral land use, with occasional arable fields and patches of rough grazing land.*
- *Linear bands of broadleaved woodland, occasional small mixed woods, ornamental parklands and blocks of conifer plantation combined with a strong network of hedges resulting in a well-treed appearance.*
- *Nature conservation interest mainly provided by the area's network of woodlands and hedges, with isolated sites of Culm grassland, unimproved species-rich grassland and scrub interspersed within the farmland. Coastal locations include patches of maritime grassland, wet flushes and bracken scrub.*
- *Historic features include prehistoric defensive sites as well as medieval defences and an 18th century castle (all Scheduled Monuments). Many of the churches are listed.*
- *Traditional built vernacular of whitewashed and cream cob/render cottages, with some buildings of exposed local stone with red brick detailing. Recently built housing, including cream/white bungalows, is a feature of some villages.*
- *Dispersed settlement pattern of scattered farmsteads and nucleated villages/hamlets at road crossing points.*
- *Settlement and farms linked by a network of rural roads enclosed by high hedgebanks. The main A39 cuts through the area.'*

LCT 3H: Secluded Valleys

1.8.6 The Onshore HVDC Cable Corridor first crosses LCT 3H approximately 2 km to the west of the River Torridge, it then leaves it for a short section and re-enters LCT 3H approximately 0.75 km to the west of the River Torridge.

1.8.7 The relevant key characteristics of LCT 3H are as follows.

- '*Steep-sided, incised valleys with fast-flowing streams and rivers carving through the landscape, crowned by rounded hill summits.*

- *Includes the main tributary valleys of the Taw, Torridge, Bray, Mole and Tamar, as well as the tightly enclosed southward-draining downland valleys of North Devon.*
- *Watercourses carve through underlying Carboniferous sandstones, mudstones, and siltstones (Culm Measures). The downland valleys incise steeply through bands of Morte slate in their upper courses, flowing through the sandstones and mudstones from the Late Devonian as they flow south.*
- *Mixture of field sizes and shapes – often smaller, irregular medieval enclosures on lower slopes, with upper slopes merging into larger post-medieval and modern fields, often retaining earlier curving boundaries.*
- *Species-rich Devon hedges on wildflower-rich banks, with bank-side ferns and frequent hedgerow trees associated with lower valley locations.*
- *Steep valley sides dominated by pasture grazed by sheep and cattle, with patches of rough grazing land on upper slopes and rushy meadows fringing watercourses.*
- *Dense tree cover cloaking valley sides, including ancient semi-natural oak woodlands with a colourful ground flora, beech-dominated broadleaved woodlands, and conifer blocks. Some ancient sessile oak woodland is designated a Site of Special Scientific Interest (SSSI). Patches of wet woodland tracing river/stream courses.*
- *Nucleated historic villages, hamlets, and farmstead groups at crossing points, with some linear spread along valley floors. Settlement linked by minor roads running along valley floors and sunken lanes falling steeply down slopes.*
- *Strong local vernacular of exposed local stone and slate, along with cream, whitewashed and yellow buildings, some with thatched roofs. Derelict corrugated iron livestock sheds and linhays frequently feature in valleys within Torridge district.*
- *High levels of peace and tranquillity frequently defined by sounds of fast-flowing water, although locally impacted by main roads in some valleys*.'

LCT 4A: Estuaries

1.8.8 The Onshore HVDC Cable Corridor crosses LCT 4A in a trenchless crossing and so would not affect any of its key characteristics.

LCT 5A: Inland Elevated Undulating Land.

1.8.9 The remainder of the Onshore HVDC Cable Corridor and the Converter Site are proposed be located within LCT 5A, as will the proposed Alverdiscott Substation Connection Development. The relevant key characteristics of this LCT are as follows.

- '*Elevated land cut by a series of tributaries forming folds in the landform. Parts are high and remote with far-reaching views to Dartmoor, including summits of over 200 metres.*
- *Underlying geology of Culm Measures – comprising smooth bands of mudstones, siltstones and harder outcrops of sandstone. Rich red soils are often exposed through ploughing.*

- *Medium-scale regular fields of recent enclosure, with pockets of smaller fields of medieval origin on valley slopes and tracts of unenclosed rough grazing along valley bottoms.*
- *Fields enclosed by mixed species hedges (predominantly hawthorn and blackthorn) with flower-rich banks and frequent hedgerow trees in sheltered locations. Some locally distinctive hedges topped with gorse and beech . Occasional amalgamated fields bounded by fences.*
- *Strong farmed character with pasture fields grazed by cattle and sheep, occasional fields of arable cultivation and rough grazing of rushy meadows along valleys.*
- *Tributary valleys lined by broadleaved and wet woodland (occasionally ancient) providing contrasting shelter and texture. Small farm woods (including remnant orchards), occasional conifer blocks and avenues of mature beech provide further woodland cover.*
- *Linhays (traditional livestock shelters) of local stone and cob, with corrugated iron or slate roofs, forming notable features of the farmed landscape.*
- *Local vernacular of white-washed buildings with slate or thatch roofs, often with red brick detailing. Square church towers with ornate pinnacles form distinctive local landmarks.*
- *Farms dispersed throughout the landscape often on exposed ridges, sheltered by evergreen shelterbelts. Nucleated villages also occupying prominent ridgeline positions, often with linear development of white/cream houses and bungalows spreading outwards from the historic core.*
- *Straight roads traversing ridges and dipping down into valleys, crossing streams on sandstone bridges*.'

LCT 3A: Upper Farmed Wooded Valley Slopes

1.8.10 LCT 3A lies within the Order Limits, to the north of the Converter Site. Within this area, immediately to the north of the Converter Site, there would be associated works, such as the realignment of the existing electricity pylons and overhead lines to the existing Alverdiscott Substation. The relevant key characteristics of LCT 3A are as follows.

- *'Strongly undulating landform of rolling hills and farmland cut by tributary streams feeding into the main river valleys.*
- *Underlying geology comprising mudstones and siltstones with bands of sandstone creating the rolling landform ('Culm Measures').*
- *A pastoral landscape, with some fields of arable cultivation on higher slopes, forming a strong mosaic with copses, interlinking Devon hedges and small woodlands as well as occasional small blocks of coniferous plantation. Remnant orchards are associated with farmsteads.*
- *Strong pattern of medium-scale fields of medieval and post-medieval origin enclosed by species-rich Devon hedges with flower-rich banks. Thick hedges with frequent hedgerow trees found on more sheltered valley slopes.*
- *Some areas of intensive arable cultivation in larger, regular fields found on more elevated land. Villages and tributary valleys often characterised by smaller, historic field patterns.*

- *Nature conservation interest provided by areas of species-rich Culm grassland, rich valley mire, wet woodland and damp meadows associated with tributary valleys and springs. Patches of gorse on higher slopes give some areas an upland feel.*
- *Historic villages and hamlets (several of which are Conservation Areas) typically dispersed and clustered on hilltops with farmsteads distributed throughout, linked by a network of winding rural roads and steep sunken lanes crossing watercourses over stone bridges. Crossroads are marked by distinctive white fingerposts.*
- *Strong local vernacular of whitewash and white/cream render with painted window and door frames and slate roofs. Some buildings constructed of exposed stone with red brick detailing, with the use of thatch important locally*
- *Overall a peaceful and highly rural landscape. Main roads, prominent pylon lines and the influence of modern development erode levels of tranquillity locally.*
- *Linhays (traditional animal shelters) constructed of cob and local stone with slate or corrugated iron roofs, reinforce a strong history of farming.*
- *Square church towers (many of which are Grade II* Listed) form strong local landmark features peeping through the rolling hills. Other heritage features include a prominent prehistoric hillfort and designated parkland.'*

LCT 1F: Farmed Lowland Moorland and Grassland

1.8.11 This LCT 1F lies adjacent to the LCT 5A (Inland Elevated Undulating Land) that the converter stations would be located within, approximately 325 m from the Proposed Development. No development is proposed within this LCT, however, it is taken forward to the assessment stage, as it lies within the Order Limits. The relevant perceptual key characteristics to consider are as follows.

- *'Pastoral character including rough cattle/sheep grazing on expanses of Culm grassland and heath. More intensive farming, including occasional arable fields, poultry units and localised pony paddocks on the fringes of the 'moors'.*
- *Wind turbines visually influence parts of the landscape, notably a large wind farm in North Devon and several small wind farm developments in Torridge.*
- *Golf courses, fishing lakes, caravan parks, equestrian centres, disused airfields, industrial land uses and main roads dilute perceptions of tranquillity and remoteness locally.*
- *Elevation affording long views across the landscape and beyond - e.g. to the contrasting lush green fields of the surrounding farmland and the high moorland landscapes of Dartmoor and Exmoor.'*

Indirectly affected LCTs

1.8.12 In addition to those LCTs that would be directly affected by the Proposed Development, there are a number that have the potential to be indirectly affected, i.e., parts of the converter stations have the potential to be visible from some LCTs, including the following.

- LCT 1D: Estate Wooded Ridges and Hilltops.
- LCT 4A: Estuaries.

- LCT 4E: Extensive Inter-Tidal Sands.
- LCT 4F: Dunes.
- LCT 5D: Estate Wooded Farmland.
- LCT 7: Main Cities and Towns.

1.8.13 The physical characteristics, elements and features of these LCTs would not be affected by the Proposed Development, but the perceptual aspects, such as tranquillity, might be. These LCTs are set out in numerical order, below.

LCT 1D: Estate Wooded Ridges and Hilltops

1.8.14 The perceptual qualities that have the potential to be affected by the Proposed Development are: panoramic views from hill summits, e.g., from Codden Hill, to Lundy, Exmoor and Dartmoor; and a strong sense of tranquillity. Given the distance from the Proposed Development (7.7 km to the converter stations) there is no potential for this LCT to experience significant adverse effects from the Proposed Development. It is not taken forward to the assessment stage.

LCT 4A: Estuaries

1.8.15 The perceptual qualities that have the potential to be affected include the broad sweeping expansive views of the estuary with high levels of perceived tranquillity and wildness related to the presence of wildlife and areas of biodiversity. However, due to the distance of the Proposed Development (7.8 km to the converter stations) there is no potential for this LCT to experience significant adverse effects from the Proposed Development. Therefore, it is not taken forward to the assessment stage.

LCT 4E: Extensive Inter-tidal Sands

1.8.16 Perceptual qualities that have the potential to be affected include: out of holiday season, unsettled wild landscapes; and views south to Westward Ho! dominated by ridgeline development at Westward Ho! and Northam. The ZTV (**Figure 2.2.3**) indicates a large area of intervisibility between the LCT and the proposed converter stations. Given the distance from the Proposed Development (approximately 6.6 km to the converter stations) and the intervening landscape, there is no potential for this LCT to experience significant adverse effects from the Proposed Development. It is not taken forward to the assessment stage.

LCT 4F: Dunes

1.8.17 Perceptual qualities that have the potential to be affected are: elevated extensive views along the coast and inland; strong sense of wildness; and high levels of tranquillity. Similarly, the ZTV (**Figure 2.2.3**) suggests a potential large area of visibility of the converter stations from this LCT. However, given the distance from the Proposed Development (6.2 km to the converter stations) and the intervening urban and tourism development, there is no potential for this LCT to experience significant adverse effects from the Proposed Development. It is not taken forward to the assessment stage.

LCT 5D: Estate Wooded Farmland

1.8.18 The perceptual qualities that have the potential to be affected by the Proposed Development are: long views across the landscape from higher land, including to Dartmoor; and a strong sense of peace and tranquillity. Given the distance from the Proposed Development (7.9 km to the converter stations), there is no potential for this LCT to experience significant adverse effects from the proposed development. It is not taken forward to the assessment stage.

LCT 7: Main Cities and Towns

1.8.19 In theory, the converter stations might be seen from the elevated areas of northern Bideford. However, given the distance of these areas from the Proposed Development (2.4 km to the converter stations) and the urban context of the views, there is no potential for this LCT to experience significant adverse effects from the Proposed Development. It is not taken forward to the assessment stage.

1.8.20 As detailed above, there is no potential for the more distant, indirectly affected LCTs to be significantly affected and these will not be taken forward to the assessment stage. However, those adjacent LCTs, LCT 1F and LCT 3A, have the potential to be significantly affected, albeit indirectly, and will be taken forward to the assessment stage of the chapter

1.9 Summary

1.9.1 This appendix identifies the seascape and landscape character areas that have the potential to be affected by the Proposed Development. The LSVIA study area is based on the maximum design scenario set out in Volume 4, Chapter 2: Landscape, Seascape and Visual Resources, of the ES.

1.10 References

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