MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Outline Code of Construction Practice

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Glossary

Term	Meaning
400 kV grid connection cables	Cables that will connect the proposed onshore substations to the existing National Grid Penwortham substation.
400 kV grid connection cable corridor	The corridor within which the 400 kV grid connection cables will be located.
Applicants	Morgan Offshore Wind Limited (Morgan OWL) and Morecambe Offshore Windfarm Ltd (Morecambe OWL).
Biodiversity benefit	An approach to development that leaves biodiversity in a better state than before. Where a development has an impact on biodiversity, developers are encouraged to provide an increase in appropriate natural habitat and ecological features over and above that being affected. For the Transmission Assets, biodiversity benefit will be delivered within identified biodiversity benefit areas within the Onshore Order Limits. Further qualitative benefits to biodiversity are proposed via potential collaboration with stakeholders and local groups, contributing to existing plans and programmes, both within and outside the Order Limits.
Code of Construction Practice	A document detailing the overarching principles of construction, contractor protocols, construction-related environmental management measures, pollution prevention measures, the selection of appropriate construction techniques and monitoring processes.
Commitment	This term is used interchangeably with mitigation and enhancement measures. The purpose of commitments is to avoid, prevent, reduce or, if possible, offset significant adverse environmental effects. Primary and tertiary commitments are taken into account and embedded within the assessment set out in the ES.
Construction Traffic Management Plan	A document detailing the construction traffic routes for heavy goods vehicles and personnel travel, protocols for delivery of Abnormal Indivisible Loads to site, measures for road cleaning and sustainable site travel measures.
Development Consent Order	An order made under the Planning Act 2008, as amended, granting development consent.
Direct pipe	A cable installation technique which involves the use of a mini (or micro) tunnel boring machine and a hydraulic (or other) thruster rig to directly install a steel pipe between two points.
Dust	Solid particles suspended in air or settled out onto a surface after having been suspended in air, as defined by the Institute of Air Quality Management.
Earthworks	Covers the processes of soil-stripping, ground-levelling, excavation, and landscaping, as defined by the Institute of Air Quality Management.
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.
Horizontal directional drilling	A trenchless technique for installing cables and cable ducts involving drilling in an arc between two points.
Intertidal Infrastructure Area	The temporary and permanent areas between MLWS and MHWS.

Term	Meaning
Landfall	The area in which the offshore export cables make landfall (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Lytham St. Annes between Mean Low Water Springs and the transition joint bay inclusive of all construction works, including the offshore and onshore cable routes, intertidal working area and landfall compound(s).
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.
Local Highway Authority	A body responsible for the public highways in a particular area of England and Wales, as defined in the Highways Act 1980.
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 Transmission Assets.
Main rivers	The term used to describe a watercourse designated as a Main River under the Water Resources Act 1991 and shown on the Main River Map. These are usually larger rivers or streams and are managed by the Environment Agency.
Mean High Water Springs	The height of mean high water during spring tides in a year.
Mean Low Water Springs	The height of mean low water during spring tides in a year.
Method Statements	A document that describes how a particular task or action should be undertaken correctly.
Micro-tunnelling	A tunnelling technique involving the use of a hydraulic (or other) jacking rig and a mini (or micro) tunnel boring machine to install a concrete tunnel between two points.
Mitigation measures	This term is used interchangeably with Commitments. The purpose of such measures is to avoid, prevent, reduce or, if possible, offset significant adverse environmental effects.
Morecambe OWL	Morecambe Offshore Windfarm Ltd is a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) (Cobra) and Flotation Energy Ltd.
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The offshore and onshore infrastructure connecting the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm to the national grid. This includes the offshore export cables, landfall site, onshore export cables, onshore substations, 400 kV grid connection cables and associated grid connection infrastructure such as circuit breaker compounds. Also referred to in this report as the Transmission Assets, for ease of reading.
Morgan OWL	Morgan Offshore Wind Limited is a joint venture between bp Alternative Energy investments Ltd. and Energie Baden-Württemberg AG (EnBW).
Onshore export cable corridor	The corridor within which the onshore export cables will be located.

Term	Meaning
Onshore Infrastructure Area	The area within the Transmission Assets Order Limits landward of Mean High Water Springs. Comprising the offshore export cables from Mean High Water Springs to the transition joint bays, onshore export cables, onshore substations and 400 kV grid connection cables, and associated temporary and permanent infrastructure including temporary and permanent compound areas and accesses. Those parts of the Transmission Assets Order Limits proposed only for ecological mitigation/biodiversity benefit are excluded from this area.
Onshore Order Limits	See Transmission Assets Order Limits: Onshore (below).
Transition joint bays	The transition joint bay consists of a concrete slab floor excavation into which the offshore and onshore export cables are pulled before the cables are jointed together.
Transmission Assets	See Morgan and Morecambe Offshore Wind Farms: Transmission Assets (above).
Transmission Assets Order Limits	The area within which all components of the Transmission Assets will be located, including areas required on a temporary basis during construction and/or decommissioning
Transmission Assets Order Limits: Onshore	The area within which all components of the Transmission Assets landward of Mean High Water Springs will be located, including areas required on a temporary basis during construction and/or decommissioning (such as construction compounds).

Acronyms

Acronym	Meaning
AIL	Abnormal Indivisible Loads
BHS	Biological Heritage Site
BS	British Standard
CAA	Civil Aviation Authority
CL:AIRE	Contaminated Land: Applications in Real Environments
CoCP	Code of Construction Practice
CoT	Commitment
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EMS	Environmental Management System
ES	Environmental Statement
CDM	Construction (Design and Management)
HDD	Horizontal Directional Drilling
HGV	Heavy Goods Vehicle

Acronym	Meaning
IAQM	Institute of Air Quality Management
MLWS	Mean Low Water Springs
MHWS	Mean High Water Springs
MMO	Marine Management Organisation
PPP	Pollution Prevention Plan
PRoW	Public Right of Way
SuDS	Sustainable urban Drainage Systems
SWMP	Site Waste Management Plan
WSI	Written Scheme of Investigation

Units

Unit	Description
%	Percentage
kV	Kilovolt
m	Metre
mph	Miles per hour

1 Outline Code of Construction Practice

1.1 Background

1.1.1 Introduction

1.1.1.1 This document forms the Outline Code of Construction Practice prepared for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (referred to hereafter as 'the Transmission Assets').

1.1.2 Project overview

1.1.2.1 Morgan Offshore Wind Limited (Morgan OWL), a joint venture between bp Alternative Energy Investments Ltd (bp) and Energie Baden-Württemberg AG (EnBW), is developing the Morgan Offshore Wind Project. The Morgan Offshore Wind Project is a proposed wind farm in the east Irish Sea.

1.1.2.2 Morecambe Offshore Windfarm Ltd (Morecambe OWL), a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) (Cobra) and Flotation Energy Ltd, is developing the Morecambe Offshore Windfarm, also located in the east Irish Sea.

1.1.2.3 The purpose of the Transmission Assets is to connect the Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm: Generation Assets (referred to collectively as the 'Generation Assets') to the National Grid.

1.1.2.4 Morgan OWL and Morecambe OWL (the Applicants) are jointly seeking a single consent for their electrically separate transmission assets comprising aligned offshore export cable corridors to landfall and aligned onshore export cable corridors to separate onshore substations, and onward connection to the National Grid at Penwortham, Lancashire.

1.1.2.5 The key components of the Transmission Assets include offshore elements, landfall and onshore elements. Details of the activities and infrastructure associated with the Transmission Assets are set out in Volume 1, Chapter 3: Project Description of the Environmental Statement (ES) (document reference F1.3).

1.1.2.6 This Outline Code of Construction Practice has been developed for onshore elements] of Transmission Assets, landwards of Mean Low Water Springs (MLWS). The onshore and intertidal elements of Transmission Assets relevant to this plan are as follows.

- Landfall: this is where the offshore export cables are jointed to the onshore export cables via the transition joint bays (TJBs). This term applies to the entire area between Mean Low Water Springs (MLWS) and the TJBs.
- Onshore export cables: these export cables will be jointed to the offshore export cables via the transition joint bays at the landfall site, and will bring the electricity generated by the Generation Assets to the onshore substations.

- Onshore substations: the two electrically separate onshore substations will contain the components for transforming the power supplied via the onshore export cables up to 400 kV.
- 400 kV grid connection cables: these export cables will bring the electricity generated by the Generation Assets from the two electrically separate onshore substations to the existing National Grid substation at Penwortham.
- Environmental mitigation areas: – temporary and/or permanent areas proposed for environmental mitigation only, including temporary and permanent accesses for these areas. No electrical infrastructure is proposed within these areas.
- Biodiversity benefit areas: permanent areas within which biodiversity benefit measures are proposed, including temporary and permanent accesses for these areas. No electrical infrastructure is proposed within these areas.

1.1.3 Purpose of the Outline Code of Construction Practice

1.1.3.1 This Outline Code of Construction Practice presents the framework and outline of measures to manage the environmental impacts during the construction phase of the Transmission Assets

1.1.3.2 The detailed CoCP(s) will be supported via a series of management plans. **Table 1.2** sets out the documents that will be appended to the detailed CoCP(s) (as secured by requirements in the DCO) and the purpose of each document. Outline versions of these plans are provided with the DCO application.

Table 1.1: Documents to support the implementation of the detailed CoCP(s)

Document	Purpose of the document	Status
Communications Plan	To set out a framework for engaging stakeholders (i.e., sets out methods of contacting and engaging with affected groups; methods of providing advance notifications); roles and responsibilities for implementing the communication plan; and complaints procedure.	Outline version of the Communications Plan is included within the DCO application (document reference J1.1).
Dust Management Plan	To set out dust and air quality control measures in line with Institute of Air Quality Management (IAQM, 2014) guidance.	Outline version of the Dust Management Plan is included as part of the DCO application (document reference J1.2).
Construction Noise and Vibration Management Plan	To set out details of Best Practicable Means to manage noise levels and noise monitoring during construction.	Outline version of the Construction Noise and Vibration Management Plan is included as part of the DCO application (document reference J1.3).
Pollution Prevention Plan	To set out details of emergency incident response procedures and provide best practice guidance for pollution prevention and control measures relating to site-specific construction activities.	Outline version of the Pollution Prevention Plan (PPP) is included as part of the DCO application (document reference J1.4).

Document	Purpose of the document	Status
Public Rights of Way (PRoW) Management Plan	To set out management measures for PRoWs including bridleways and footpaths and other routes for non-motorised users during the construction. It also sets out the procedures to manage the effects of the construction process within Blackpool Road Recreation Ground.	Outline version of the PRoW Management Plan is included as part of the DCO application (document reference J1.5).
Site Waste Management Plan	To manage wastes generated during the construction phase of the Transmission Assets.	Outline version of the Site Waste Management Plan is included as part of the DCO application (document reference J1.6).
Soil Management Plan	To set out measures to conserve soil resources; avoid damage to soil structure; maintain soil drainage during construction; and identify principles for the reinstatement of the soil profile following the construction.	Outline version of the Soil Management Plan is included as part of the DCO application (document reference J1.7).
Spillage and Emergency Response Plan	To set out emergency incident response procedures in case of spillages, leaks or accidents. It provides procedures for storing and handling potential pollutants during construction and controlling and managing spillages should they occur.	Outline version of the Spillage and Emergency Response Plan is included as part of the DCO application (document reference J1.8).
Surface Water and Groundwater Management Plan	To set out measures to manage surface water runoff and site drainage from construction work areas to minimise the pollution risk to waterbodies from contaminated water runoff and minimise flood risk from increased surface water runoff.	Outline version of the Surface Water and Groundwater Management Plan is included as part of the DCO application (document reference J1.9).
Construction Fencing Plan	To set out the type of fencing, its location, its maintenance during construction and its removal.	Outline version of the Construction Fencing Plan is included as part of the DCO application (document reference J1.10).
Construction Artificial Light Emissions Management Plan	To set out construction lighting requirements and the measures to control light spill.	Outline version of the Construction Artificial Light Emissions Management Plan is included as part of the DCO application (document reference J1.11).
Biosecurity Protocol	To set out the measures for managing biosecurity risks, including invasive species, diseases and pathogens.	Outline version of the Biosecurity Protocol is included as part of the DCO application (document reference J1.12).
Bentonite Breakout Plan	To set out the procedures and measures for minimising the potential for and management of a bentonite breakout, including a response plan should breakout occur.	Outline version of the Bentonite Breakout Plan is included as part of the DCO application (document reference J1.13).
Contaminated Land and Groundwater Discovery Strategy	To set out the procedures to ensure effective management of previously unidentified soil and/or groundwater contamination that may be encountered in order to minimise risks to controlled water and human health receptors.	Outline version of the Contaminated Land and Groundwater Discovery Strategy is included as part of the DCO application (document reference J1.14).

1.1.3.3 The construction activities of the Transmission Assets will also be managed through management plans that sit outside the detailed CoCP(s). These include but are not limited to:

- Outline Construction Traffic Management Plan (CTMP) (document reference J5), which sets out details of routes for construction traffic; delivery timings and logistics; location of wheel wash facilities. The document will also cover workforce travel.
- Outline Design Principles (document reference J3) detailing the design principles, which sets out the layout, scale and external appearance of the onshore substation buildings.
- An Outline Landscape Management Plan (document reference J2) which sets out the landscape strategy for implementation and any long-term maintenance and management.
- An Outline Ecological Management Plan (document reference J6) which sets out the mitigation and management measures relevant to onshore ecology and nature conservation and in relation to onshore and intertidal ornithology. The detailed plan will be developed in consultation with the relevant responsible authorities.
- An Outline Onshore and Intertidal Written Scheme of Investigation (WSI) (document reference J9) is to provide further consideration of archaeology. The scope of work to be undertaken to mitigate those direct physical impacts on the historic environment such as:
  - procedures if previously unidentified heritage assets are discovered during construction (a ‘chance find’ procedure);
  - completion of archaeological evaluation (geophysical surveys, trial trenching etc.) where required; and
  - archaeological watching brief during topsoil stripping (where required).

1.1.3.4 In addition, the Onshore Crossing Schedule (Volume 1, Annex 3.2 of the ES, document reference F1.3.2) details the techniques and procedures that will be deployed at crossing points during the construction phase.

1.1.4 Structure of this document

1.1.4.1 This document is set out as follows:

- **Table 1.1** sets out the documents that will be included in the detailed CoCP(s).
- **Section 1.4** identifies the key roles and responsibilities of the project team.
- **Section 1.5** sets out the general principles for the implementation of the CoCP(s).
- **Section 1.6** describes the general requirements that will be implemented during the construction phase.

- **Section 1.6.12** identifies the management measures for the environmental topics.

1.2 Implementation

1.2.1.1 Following the granting of consent for the Transmission Assets, detailed Code of Construction Practice(s) will be prepared on behalf of Morgan OWL and/or Morecambe OWL, prior to commencement of the relevant stage of works and will follow the principles established in this Outline Code of Construction Practice. The detailed Code of Construction Practice(s) will require approval by the relevant planning authority following consultation with relevant stakeholders. The Applicants and all appointed contractors will be responsible for the implementation of the detailed Code of Construction Practice(s).

1.2.1.2 The Applicants have committed to implementation of detailed Code of Construction Practice(s) via the following commitment, CoT35 (see Volume 1, Annex 5.3: Commitments Register, document reference F1.5.3), and is secured by inclusion of Requirement 8 of the draft Development Consent Order (DCO) (document reference C1) Schedules 2A & 2B. Below sets out the requirement wording for Project A (Project B's requirement mirror those of Project A for this requirement and are, therefore, not repeated):

8.—(1) No stage of the Project A onshore works or Project A intertidal works may commence until for that stage a code of construction practice has been submitted to and approved by the relevant planning authority following consultation as appropriate with Lancashire County Council, Natural England, the Environment Agency and, in relation to the Project A intertidal works or, if applicable to the Project A offshore works, the MMO.

(2) Each code of construction practice must accord with the outline code of construction practice and include, as appropriate to the relevant stage -

(a) communications plan (in accordance with the outline communications plan);

(b) dust management plan (in accordance with the outline dust management plan);

(c) construction noise and vibration management plan (in accordance with the outline construction noise and vibration management plan);

(d) pollution prevention plan (in accordance with the outline pollution prevention plan);

(e) public rights of way management plan (in accordance with the outline public rights of way management plan);

(f) site waste management plan (in accordance with the outline site waste management plan);

(g) soil management plan (in accordance with the outline soil management plan);

(h) spillage and emergency response plan (in accordance with the spillage and emergency response plan);

(i) surface water and groundwater management plan (in accordance with the outline surface water and groundwater management plan);

(j) construction fencing plan (in accordance with the outline construction fencing plan);

(k) construction artificial light emissions management plan (in accordance with the outline construction artificial light emissions management plan);

(l) biosecurity protocol (in accordance with the outline biosecurity protocol);

(m) bentonite breakout plan (in accordance with the outline bentonite breakout plan); and

(n) contaminated land and groundwater discovery strategy (in accordance with the outline contaminated land and groundwater discovery strategy).

(3) The code of construction practice approved in relation to the relevant stage of the Project A onshore works must be followed in relation to that stage of the Project A onshore works.

1.2.1.3 The Transmission Assets may adopt a staged approach to the approval of DCO requirements. This will enable requirements to be approved in part or in whole, prior to the commencement of the relevant stage of works in accordance with whether staged approach is to be taken to the delivery of the each of the offshore wind farms.

1.2.1.4 For onshore and intertidal works (landward of Mean Low Water Springs), this approach will be governed by the inclusion of Requirement 3 within the draft DCO, which requires notification to be submitted to the relevant planning authority/authorities detailing whether Project A or Project B relevant works will be constructed in a single stage; or in two or more stages to be approved prior to the commencement of the authorised development.

1.2.1.5 Pre-construction and/or site preparation activities may be undertaken prior to the commencement of construction. These activities would comprise the following, in accordance with the definition of 'onshore site preparation works' as defined by the draft DCO and deemed marine licenses (document reference C1) and Volume 1, Chapter 3: Project description of the ES:

- site clearance;
- demolition;
- early planting of landscaping works;
- archaeological investigations;
- environmental surveys;
- ecological mitigation;
- biodiversity benefit works;
- removal of hedgerows and trees;

- surveys and investigations for the purpose of assessing ground conditions;
- remedial work in respect of contamination or other adverse ground conditions;
- diversion and laying of utilities and services;
- site security works;
- the erection of temporary means of enclosure;
- the erection of temporary hard standing;
- the erection of welfare facilities and compounds for welfare facilities;
- creation of site accesses;
- onshore substation preparatory ground works; and
- temporary display of site notices or advertisements.

1.3 Project description

1.3.1.1 The purpose of the Transmission Assets is to connect the Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm: Generation Assets (referred to collectively as the 'Generation Assets') to the national grid. The Generation Assets are each subject to separate applications for development consent.

1.3.1.2 The design philosophy is for the transmission infrastructure for each wind farm to remain electrically independent (i.e., each wind farm to have its own sets of cabling and substation infrastructure). However, the location of the infrastructure will be co-ordinated within shared offshore and onshore cable corridors to minimise impacts to the environment and the community.

1.3.1.3 Both of the Generation Assets intend to be fully operational by 2030. However, to allow for any unexpected circumstances (such as delay to one project), the following scenarios have been identified for the ES, to ensure the maximum design scenario for each environmental impact can be identified.

- Construction of the Morgan Offshore Wind Project: Transmission Assets only.
- Construction of the Morecambe Offshore Windfarm: Transmission Assets only.
- Concurrent construction i.e., construction of the Morgan Offshore Wind Project: Transmission Assets and the Morecambe Offshore Windfarm: Transmission Assets at the same time.
- Sequential construction i.e., construction of one set of assets directly after the other, or with a gap.

1.3.1.4 Details of the construction scenarios, activities and infrastructure associated with the Transmission Assets are set out in Volume 1, Chapter 3: Project description of the ES (document reference F1.3).

1.4 Roles and responsibilities

1.4.1 Overview

1.4.1.1 The key roles and responsibilities of the construction team with regard to this Outline CoCP are set out in the following sections below. However, the specific responsibilities of each role will be refined as part of the detailed CoCP post consent.

1.4.1.2 The Construction (Design and Management) (CDM) Regulations 2015 also identify the legal duties, responsibilities and obligations of all the major roles within the construction team.

Applicants

1.4.1.3 Responsible for coordinating onshore construction activities for the Transmission Assets on behalf of the Applicant.

Principal Contractor(s)

1.4.1.4 The Principal Contractor(s) will be appointed by the Applicants and will be responsible for coordinating the works for each contractor.

Ecological Clerk(s) of Works

1.4.1.5 The Ecological Clerk(s) of Works (ECoW) will report on ecological matters and will be responsible for undertaking pre-construction surveys and monitoring. The ECoW will be the primary point of contact for ecological matters and will assist with site induction and tool-box talks, where necessary, to ensure ecological constraints are identified to all staff. It is anticipated that the ECoW will work with the Site Manager(s) and report to the Environmental Coordinator(s).

Agricultural Liaison Officer

1.4.1.6 The Agricultural Liaison Officer will be appointed in time for commencement of pre-construction activities and will be the dedicated point of contact for ongoing engagement about practical matters with landowners, occupiers and their agents during the pre-construction and construction phases.

1.4.1.7 The scope of works for the Agricultural Liaison Officer(s) will include but is not limited to:

- Arranging meetings with landowners, occupiers or their agents where considered necessary to minimise disruption where possible to existing farming regimes and timings of activities.
- Undertaking site inspections during construction to monitor working practices including supervising and monitoring the implementation of soil handling methodologies as per the Outline Soil Management Plan (document reference J1.7)
- Oversee any aftercare required post-construction. Should agricultural land quality issues occur during the construction or aftercare period, these will be raised with the Agricultural Liaison Officer and investigated.

Community Liaison Officer

1.4.1.8 The Community Liaison Officer will be the dedicated contact for liaising with residents and local businesses and will be responsible for implementing the Communications Plan (also refer to Outline Communications Plan, document reference J1.1). Complaints from the community will be referred to the Community Liaison Officer or Site Manager, as appropriate (refer to the Outline Dust Management Plan (document reference J1.2).

Archaeological Clerk of Works

1.4.1.9 The Archaeological Clerk of Works will report on archaeological matters and will be responsible for undertaking the roles as set out in the Outline Onshore and Intertidal WSI (document reference J9).

1.5 General principles

1.5.1 Environmental Management System

1.5.1.1 Each Principal Contractor is to be British Standard (BS) EN ISO 14001:2015 (Environmental Management System (EMS)) certified and will adhere to principles of PAS 2080 (ICE, 2023). The construction of the Transmission Assets will operate under an EMS, which will provide the process for which environmental management is undertaken to ensure that the relevant findings of the ES are addressed during the construction phase, as well as ensure compliance with relevant legislation and standards. The Principal Contractor(s) EMS will set out:

- the procedures to be implemented to monitor compliance with environmental legislation and other relevant requirements;
- the process for the management of risks associated with construction activities;
- the key environmental aspects of the construction works and how they will be managed;
- staff competence and training requirements;
- record-keeping arrangements (e.g., records of monitoring, including but not limited to results of routine site inspections, environmental surveys and equipment testing records); and
- monitoring the effectiveness of the measures included within the detailed CoCP(s), as approved by the relevant local planning authorities in consultation with the relevant stakeholders.

1.5.1.2 As part of the EMS, the Principal Contractor(s) will be required to plan their works in advance to ensure the works incorporate measures to avoid and/or minimise potential environmental effects and ensure that any commitments documented in the DCO, the principles established in detailed CoCP(s), and commitments made in the ES are complied with.

1.6 General site operations

1.6.1 Commitments

1.6.1.1 Through the EIA process, the Applicants have identified commitments which seek to eliminate or reduce impacts or adopt best practice guidance as part of the Transmission Assets and are recorded within Volume 1, Annex 5.3: Commitments Register of the ES (document reference F1.5.3). Where relevant, commitments have been detailed within subsequent sections of this Outline CoCP. All commitments associated with onshore and intertidal construction are provided in full within **Table 1.2**.

Table 1.2: Measures (commitments) adopted as a part of the Transmission Assets relevant to the Outline CoCP

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
CoT02	The following features will be crossed by trenchless techniques, as set out in the Onshore Crossing Schedule submitted as part of the application for development consent: - A, B and Classified unnumbered roads (known as C roads) (including the Preston Western Distributor Road, A582 South Ribble Western Distributor Upgrade and M55 Heyhouses Link Road; excluding Leech Lane); - All Environment Agency Main Rivers, including: Moss Sluice, east of Midgeland Road along Pegs Lane; Savick Brook, south of A583; Wrea Brook southeast of Cartmell Lane; Dow Brook east of Lower Lane between the A584 and the A583; Middle Pool north of Lund Way; and - All Network Rail crossings, including along the line which runs between Blackpool North and Preston, south of Cartmell Lane; and at the Network Rail crossing along the line which runs to Blackpool North, south east of Squires Gate, parallel to the A584.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT03	A range of sensitive historical, cultural and ecological conservation areas (including statutory and non-statutory designations) have been directly avoided where practicable during the site selection process for Morgan and Morecambe Offshore Wind Farms: Transmission Assets footprint. The Works Plans identify the areas where different works are currently proposed. These include, but are not restricted to: • Listed Buildings • Scheduled Monuments • Registered Parks and Gardens • Onshore Conservation Areas • Onshore National Site Network • Offshore National Site Network • Sites of Special Scientific Interest (Onshore only) • Local Nature Reserves • Local Wildlife sites • Lancashire Wildlife Trust Reserves	DCO Article 3(1); Works Plans - Onshore and Intertidal

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
	• Royal Society for the Protection of Birds (RSPB) Reserves • National Trust land; • Ancient Woodland sites and known Tree Preservation Orders (TPOs); & • non-designated built heritage assets. Where possible, unprotected areas of woodland, mature and protected trees (i.e. veteran trees) have and will also be avoided, including the veteran tree located to the north east of National Grid Penwortham substation.	
CoT04	An Outline Pollution Prevention Plan (PPP) forms part of the Outline Code of Construction Practice submitted with the application for development consent. Detailed PPP(s) will be developed in accordance with the Outline PPP and includes details of emergency spill procedures. Good practice guidance detailed in the Environment Agency's Pollution Prevention Guidance notes (including Pollution Prevention Guidance notes 01, 05, 08 and 21) will be followed where appropriate, or the latest relevant available guidance.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT05	During construction of piled foundations the following guidance will be used: Land Contamination Risk Management (LCRM) (July 2023) and Managing and reducing land contamination: guiding principles (GPLC), or latest relevant available guidance, where appropriate.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT06	The construction area associated with onshore export cable corridor will be 100 m working width and the 400kv grid connection cable corridor will be working width 76 m to minimise the construction footprint, except at complex trenchless technique crossings, including, but not limited to: • Network Railway Crossings; • A, B and Classified unnumbered roads (known as C roads), including B5261 (Queensway); • the approach to landfall; • river and water course crossings; and • sensitive utility assets (e.g. high pressure gas pipelines). The widths of both the onshore export cable corridor and 400kv grid connection cable corridor also increases up to 270 m in width, on the access and egress to the onshore substations, to facilitate consideration of trenchless crossings as well as being subject to detailed design. These increased widths and crossing methodologies are set out in the Onshore Crossing Schedule and Works Plans-Onshore and Intertidal.	DCO Schedules 2A & 2B, Requirement 5 (Detailed design parameters onshore); Works Plans - Onshore and Intertidal

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
CoT08	Post-construction, the working area will be reinstated to pre-existing condition as far as reasonably practical in line with the DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (PB13298), Institute of Quarrying (IQ) Good Practice Guide for Handling Soils in Mineral Workings (IQ, 2021) and British Society of Soil Science (BSSS) Working with Soil Guidance Note on Benefitting from Soil Management in Development and Construction (BSSS, 2022).	DCO Schedules 2A & 2B, Requirement 18 (Restoration of land temporarily used for construction); DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT09	The Outline Code of Construction Practice (CoCP) has been submitted as part of the application for development consent. Detailed CoCP(s) will be developed in accordance with the outline CoCP. The Outline CoCP will include information about drainage during construction.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT10	Where trenchless techniques are proposed for Environment Agency Main Rivers, the following distances will be used: • 8 m from the bank of the Environment Agency Main River or landward toe of any associated flood defence structure; • 16 m from tidal Environment Agency Main Rivers or the landward toe of any flood defences, where the Main River is a sea defence structure; and • a minimum of 2 m vertical clearance will be maintained below the hard bed of all Environment Agency Main Rivers, including the landward toe of any associated flood defences. Final vertical clearance depths beneath Environment Agency Main Rivers will be identified during detailed design stage, in consultation with the Environment Agency, to ensure the export cables remain buried for the operational lifetime of the project.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice); DCO Schedule 10, Part 9
CoT12	The onshore export cables and the 400 kV grid connection cables will be completely buried underground for the entire length. No overhead pylons will be installed as part of the Transmission Assets.	DCO Schedule 1, Part 1, Authorised Development
CoT13	Where hedgerows and/or trees require removal, this will be undertaken prior to topsoil removal. Sections of hedgerows and trees which are removed will be replaced using like for like hedgerow species.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice); and

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
		Requirement 12 (Ecological Management Plan)
CoT14	Joint bays will be completely buried, with the land above reinstated. An inspection cover will be provided on the surface for link boxes for access during operation and maintenance phase.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT15	Detailed Landscape Management Plan(s) will be developed in accordance with the Outline Landscape Management Plan. Detailed Landscape Management Plan(s) 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 practicable, landscape mitigation planting will be established as early as reasonably practicable in the construction phase.	DCO Schedules 2A & 2B, Requirement 6 (Provision of landscaping)
CoT16	All vegetation requiring removal will be undertaken outside of the bird breeding season. If this is not reasonably practicable, the vegetation requiring removal will be subject to a nesting bird check by a suitably qualified ecological clerk of works. If nesting birds are present, the vegetation will not be removed until the young have fledged or the nest failed.	DCO Schedules 2A & 2B, Requirement 12 (Ecological Management Plan); and Requirement 8 (Code of Construction Practice)
CoT17	Where required, provision will be made for badger access in relevant construction areas, when work is not taking place in order to ensure normal movements as far as reasonably possible. Provision will be made to ensure avoiding the entrapment of any animals within relevant construction areas. Checks will be made prior to the start of any works to ensure no animals are trapped. Appropriate checks will be made as required by the ecological clerk of works.	DCO Schedules 2A & 2B, Requirement 12 (Ecological Management Plan); and Requirement 8 (Code of Construction Practice)
CoT18	Core working hours for the construction of the intertidal and onshore works will be as follows: • Monday to Saturday: 07:00 - 19:00 hours; and • up to one hour before and after core working hours for mobilisation (“mobilisation period”) i.e. 06:00 to 20:00. Activities carried out during the mobilisation period will not generate significant noise levels (such as piling, or other such noisy activities). In circumstances outside of core working practices, specific works may have to be undertaken outside the core working hours. This will include, but is not limited to, works being undertaken within and/or adjacent to Blackpool	DCO Schedules 2A & 2B, Requirement 14 (Construction hours)

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
	Airport and cable installation at landfall and at the River Ribble. Advance notice of such works will be given to the relevant planning authority.	
CoT19	All trenchless crossings will be undertaken by non-impact methods such as HDD (or other trenchless techniques including micro tunnelling and direct pipe), excluding preparatory works, in order to minimise construction noise and vibration beyond the immediate location of works.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT20	All temporary working areas for the onshore export cable corridor, 400 kV grid connection cable corridor, temporary compounds, and the onshore substation sites will be clearly marked and secured with appropriate fencing. This will be done in accordance with the Outline Construction Fencing Plan, as part of the Outline CoCP and in accordance with Construction (Design and Management) Regulations 2015 requirements.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT21	There will be no permanent High Voltage infrastructure installed above surface within 110 m of residential properties and subsurface infrastructure within 50 m of residential properties from the onshore substations.	DCO Schedules 2A & 2B Requirement 4(2) (Substation works); and Works Plan - Onshore
CoT22	Prior to the commencement of works, the contractor (or project appointed Land Agent) will undertake a record of condition, (which will accompany previously captured soil condition data, identifying and describing the physical and nutrient characteristics of the existing soil profiles). Such work will inform the reinstatement under CoT8.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT23	Temporary access points from the public highway will be installed to facilitate vehicular access into the onshore export cable corridor, 400 kV grid connection cable corridor and onshore substations, during construction, in accordance with the indicative outline highway access designs set out within Outline Highways Access Management Plan, prepared and submitted with the application for development consent.	DCO Schedules 2A & 2B, Requirement 9 (Traffic and Transport)
CoT24	Where practicable, during construction, access routes within the onshore export cable corridor and 400kV grid connection corridor (i.e. for example, the use of haul roads) will be used, to minimise potential impacts to the local road network.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT25	Topsoil and subsoil will be stored in separate stockpiles and managed in line with the DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (PB13298), Institute of Quarrying (IQ) Good Practice Guide for Handling Soils in Mineral Workings (IQ, 2021) and British Society of Soil Science (BSSS) Working with Soil Guidance Note on Benefitting from Soil Management in Development and Construction (BSSS, 2022). Any suspected or confirmed contaminated soils will be appropriately separated, contained and tested before	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
	removal (if required). This will be done in accordance with the Outline Soil Management Plan, as part of the Outline CoCP, prepared and submitted with the application for development consent.	
CoT26	Detailed Site Waste Management Plan(s) (SWMPs) will be developed in accordance with the Outline Site Waste Management Plan and Outline CoCP prepared and submitted with the application for development consent, and in consideration of the latest relevant available guidance.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT27	All temporary compounds will be removed and sites will be reinstated when construction has been completed.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice); and DCO Schedules 2A & 2B, Requirement 16 (Restoration of land used temporarily for construction)
CoT28	Construction site lighting will only operate when required and will be positioned and directed to avoid unnecessary illumination to residential properties, sensitive ecological receptors and footpath users, and minimise glare to users of adjoining public highways. Construction site lighting will be designed in accordance with latest relevant available guidance and legislation and the details of the location, height, design and luminance of lighting to be used will be detailed within the Outline Construction Artificial Light Emissions Management Plan, as part of the Outline CoCP. The design of construction site lighting will accord with the details provided in the Outline Code of Construction Practice (CoT35) and Outline Ecological Management Plan (CoT76).	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice); and DCO Schedules 2A & 2B, Requirement 12 (Ecological management plan)
CoT29	Appropriate Personal Protective Equipment will be used and relevant good working practices applied to avoid potential risk to human health including from any potential ground contamination, in line with relevant available guidance.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice);
CoT30	An Outline Contaminated Land and Groundwater Discovery Strategy, as part of the Outline CoCP has been submitted with the application for development consent, to identify any suspected areas of contamination and any remedial measures which may be required. Detailed strategies will identify the construction protocol for discovery of any currently unknown contamination and any remedial measures that may be required.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
CoT31	Ponds identified during the route planning and site selection process have been avoided where possible. During construction any newly identified ponds will be avoided through micro-siting of the onshore export cable corridor and 400 kV grid connection cable corridor where reasonably practicable.	DCO Schedules 2A & 2B, Requirement 12 (Ecological Management Plan)
CoT32	An Outline Public Rights of Way (PRoW) Management Plan has been prepared as part of the Outline CoCP in order to minimise the disturbance to PRoWs, where practicable. Where practically possible the impact will be temporary and PRoWs will be reinstated as soon as reasonably practicable. An Outline Open Space Management Plan has been appended to the Outline PRoW Management Plan, which includes measures to minimise potential impacts to the users of Lytham St Annes beach and Blackpool Road Recreation Ground. Detailed PRoW Management Plans will include details of temporary and permanent diversions, closures, gated crossings and signage to be provided during construction and details to reinstate all PRoWs potentially affected during construction.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT33	An Outline Dust Management Plan (DMP) has been prepared as part of the Outline CoCP and submitted as part of the application for development consent. Detailed CoCP(s) will be developed in accordance with the Outline CoCP. The measures in the detailed DMP(s) will accord with guidance set out by the Institute of Air Quality Guidance Management (IAQM, 2024) where appropriate and practicable, and will include measures for monitoring and reporting dust levels, and dust suppression and mitigation measures during construction and operation.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT34	Based on noise modelling results, where noise has the potential to cause significant adverse effects, mufflers and acoustic barriers will be used, where practicable, where HDD (or other trenchless techniques) is being undertaken.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice); and DCO Schedules 2A & 2B, Requirement 18 (Control of noise during operational stage)
CoT35	An Outline Code of Construction Practice (CoCP) has been prepared and submitted with the application for development consent. Detailed CoCP(s) will be developed in accordance with the outline CoCP. The Outline CoCP includes measures to maintain and address: • flood protection and control measures; • water environment and drainage; • pollution prevention;	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
	• geology and ground conditions; • ecology and nature conservation (including protected species and invasive species); • historic environment; • soil management; • traffic and transport; • noise management measures; • air quality and dust management; • landscape and visual; • recreation; and • bentonite breakout.	
CoT38	An Outline Construction Traffic Management Plan (CTMP) has been prepared and submitted with the application for development consent. CTMP(s) will be developed in accordance with the outline CTMP prior to construction. The detailed CTMP(s) will set out measures to include: 1. managing the numbers and routing of HGVs during the construction phase; 2. managing the movement of construction worker traffic during the construction phase; 3. details of measures to manage the safe passage of HGV traffic via the local highway network; and 4. details of localised road improvements if and where these may be necessary to facilitate safe use of the existing road network.	DCO Schedules 2A & 2B, Requirement 9 (Traffic and Transport)
CoT39	Fences, walls, ditches and drainage outfalls will be retained at the landfall and along the onshore export cable corridor and 400 kV grid connection cable corridor, where possible. Where it is not reasonably practicable to retain them, any damage will be repaired and reinstated as soon as reasonably practical. The Environment Agency must be notified if damage occurs to any Environment Agency main river or related flood infrastructure.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT40	An Onshore and Intertidal Written Scheme of Investigation(s) (WSI) will be developed in line with the Outline Onshore and Intertidal WSI. The Onshore and Intertidal WSI(s) will provide details on the surveys and archaeological mitigation in advance for each stage of the Project any ground breaking works and during construction.	DCO Schedules 2A & 2B, Requirement 11 (Onshore archaeology)

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
CoT41	Where the onshore export cable corridor or 400 kV grid connection cable corridor crosses sites of particular sensitivity (e.g. embanked Environment Agency surface watercourses, Sites of Special Scientific Interest or groundwater inner Source Protection Zones) a hydrogeological risk assessment will be undertaken where practicable to inform a site-specific crossing method statement which will also be agreed with the relevant authorities prior to construction.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT42	A Greenhouse Gas (GHG) Reduction Strategy has been prepared and submitted with the application for development consent. The GHG Reduction Strategy outlines options to reduce construction-related emissions.	Not applicable.
CoT43	The onshore export cables including fibre optics or other communications cables, will be installed within the onshore export cable corridor and 400kV grid connection corridor within cable ducts or other protective covers or sheaths or mini- or micro-tunnels, as opposed to using direct lay installation method.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT44	The Project Description (Volume 1, Chapter 3 of the Environmental Statement) sets out that the installation of the offshore export cables under Lytham St, Annes SSSI and the St Annes Old Links Golf Course will be undertaken by direct pipe trenchless installation technique. The exit pits associated with the direct pipe installation will be at least 100 m seaward of the western boundary of the SSSI.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT57	Employment and Skills Plan(s) will be produced prior to construction, in accordance with the Outline Employment and Skills Plan prepared and submitted with the application for development consent. Employment and Skills Plan(s) will detail how the Applicants will engage with local workers and training providers for anticipated employment opportunities associated with the Transmission Assets.	DCO Schedules 2A & 2B, Requirement 19 (Employment and Skills Plan)
CoT73	An Outline Biosecurity Protocol has been prepared, as part of the Outline CoCP and submitted as part of the application for development consent. Detailed CoCP(s) will be developed in accordance with the outline CoCP.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT76	Detailed Ecological Management Plan(s) (EMP) will be developed in accordance with the Outline Ecological Management Plan (OEMP). The Outline Ecological Management Plan has been prepared and submitted as part of the application for development consent and includes but is not limited to pre-construction, construction and post-construction mitigation measures relating to habitats and protected or notable species, species mitigation licences and the role of the Ecological Clerk of Works (ECoW) where relevant. The Outline Ecological Management Plan also includes a Breeding Bird Protection Plan which will set out mitigation measures such as vegetation clearance in winter (e.g., hedgerows), pre-construction breeding bird survey, appropriate protection zones upon confirmation of nest building/breeding taking place of key protected or sensitive species. In addition to the Breeding Bird	DCO Schedules 2A & 2B, Requirement 12 (Ecological Management Plan)

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
	Protection Plan, the OEMP sets out species-specific mitigation plans for Important Ecological Features identified as part of the assessment. Detailed Ecological Management Plan(s) will include details of any long term mitigation and management measures relevant to onshore ecology and nature conservation and in relation to onshore and intertidal ornithology. This will include the management of ecological mitigation areas. The Detailed EMPs will be developed in consultation with the relevant statutory advisors and regulators.	
CoT77	An Outline Bentonite Breakout Plan has been prepared as part of the Outline CoCP and submitted as part of the application for development consent. CoCP(s) will be developed in accordance with the outline CoCP.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT79	An Outline Construction Noise and Vibration Management Plan has been prepared as part of the Outline CoCP submitted as part of the application for the development consent. It will include measures to mitigate noise from construction activities associated with the Transmission Assets. Detailed Construction Noise and Vibration Management Plan(s) will be developed in accordance with Detailed CoCPs. Bespoke method statement(s) will be developed to ensure suitable noise limits can be met on specific sensitive noise receptors.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT80	Operational Noise Management Plan(s) for the onshore substations will be prepared and submitted for approval prior to the commencement of operations. The Plan(s) will identify the noise limits for the operation of the onshore substations and the measures for how these limits would be monitored.	DCO Schedules 2A & 2B, Requirement 18 (Control of noise during operational stage)
CoT81	An Outline Soil Management Plan has been prepared as part of the Outline CoCP and submitted as part of the application for development consent. The detailed CoCP(s) will be developed in accordance with the outline CoCP. Detailed Soil Management Plan will be developed in order to characterise and manage soil materials during construction. Soil types would be determined via site-specific survey work.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT82	Where trenchless techniques are proposed for crossing ordinary watercourses, the entry and exit pits will be set back a minimum of 8 m from the bank of the watercourse. These crossings are detailed in the Onshore Crossing Schedule. Where required, geomorphological surveys will be undertaken on ordinary watercourses that may be crossed by trenched techniques. These will be used to inform detailed designs prior to construction.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT84	An Outline Code of Construction Practice (CoCP) has been prepared and submitted with the application for development consent. Detailed CoCP(s) will be developed in accordance with the outline CoCP. In order to manage impacts to field drainage, the outline CoCP stipulates field drainage plans will be developed in consultation	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
	with the relevant landowners. If required, additional field drainage will be installed to ensure the existing drainage of the land is maintained during and after construction.	
CoT85	An Outline Code of Construction Practice (CoCP) will be prepared and submitted with the application for development consent. Detailed CoCP(s) will be developed in accordance with the outline CoCP. The Outline CoCP will include that temporary haul road(s) will be installed using permeable gravel aggregate with a geotextile or other type of protective matting, or plastic or metal plates or grating, where required.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT86	An Outline Code of Construction Practice (CoCP) will be prepared and submitted with the application for development consent. Detailed CoCP(s) will be developed in accordance with the outline CoCP. Where required, trenched techniques may be used for minor ditches or smaller watercourses that are frequently dry. In these cases, measures will be implemented to protect water quality and flow and these will be detailed within the Outline CoCP.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT87	Any works that affect Canal and River Trust waterways or land will comply with the Canal & River Trust 'Code of Practice for Works affecting the Canal & River Trust.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT88	Best Practicable Means (as defined in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990) and will be implemented during the construction, operation, maintenance aspects of the Transmission Assets, where appropriate, to ensure that noise levels are minimised within all reasonably foreseeable circumstances. For the construction phase these will be detailed within the Outline CoCP, for the operational and maintenance phase these will be detailed within the Operational Noise Management Plan(s).	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT89	No demolition of any building will be undertaken in connection with the construction of the Transmission Assets. This is in accordance with the Outline Code of Construction Practice (CoCP) and detailed CoCPs.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT90	The Project Description (Volume 1, Chapter 3 of the Environmental Statement) sets out that the installation of the 400kV Grid Connection Cable Corridor beneath the River Ribble will be undertaken by direct pipe or micro tunnel trenchless installation techniques.	DCO Schedules 2A & 2B, Requirement 5(3) and Requirement 8 (Code of Construction Practice).

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
CoT91	An Outline Public Rights of Way (PRoW) Management Plan as part of the Outline CoCP, has been prepared and submitted with the application for development consent. Detailed Public Rights of Way (PRoW) Management Plan(s) will be developed in accordance with the Outline Public Rights of Way (PRoW) Management Plan and Outline CoCP. These will detail measures to mitigate against temporary disruption or reduced access on the Lancashire Coastal Way Long Distance Path and the Ribble Way Long Distance Path, as well as all other PRoWs to be crossed.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT92	The Applicants will join the Lancashire District Level Licensing scheme in relation to Great Crested Newts, as detailed within the Outline Ecological Management Plan.	DCO Schedules 2A & 2B, Requirement 12 (Ecological management plan)
CoT94	The Outline Code of Construction practice (CoCP) has been submitted as part of the application for development consent. CoCP(s) will be developed in accordance with the outline CoCP. The outline CoCP details appropriate studies (e.g. Site Investigations) proposed to be undertaken where major HDDs (or other trenchless techniques) are proposed, during the detailed design stage to confirm ground conditions.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT95	The Outline Code of Construction Practice (CoCP) has been submitted as part of the application for development consent. Detailed CoCP(s) will be developed in accordance with the Outline CoCP. The Outline CoCP includes that during the construction phase the Principal Contractor(s) will sign up to the Flood Warning Service and will be alerted by a phone call or text when a Flood Warning becomes active. The flood warning will be applied to the entire Onshore Infrastructure Area located within Flood Zones 2 and 3 to enable site personnel to be evacuated from the site in a timely manner prior to a flood event occurring, if appropriate.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT96	The Outline Code of Construction Practice (CoCP) has been submitted as part of the application for development consent. Detailed CoCP(s) will be developed in accordance with the Outline CoCP. The Outline CoCP includes that farm access routes between fields within a farm holding will be maintained (where reasonably practicable), or alternative routes agreed with the land holder to enable the continued operation of agricultural land holdings during the construction phase, where this may be possible.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT97	The Outline Code of Construction Practice (CoCP) has been submitted as part of the application for the development consent. Detailed CoCP(s) will be developed in accordance with the Outline CoCP. The Detailed CoCPs detail that where necessary at the compounds located within the landfall area, construction measures will be adopted to maintain the existing level of flood protection during construction. These measures will be discussed with the Environment Agency. If applicable, these measures could include scheduling work windows against tide times and briefing site personnel regarding weather conditions, tide times and heights. If a Flood Warning/Flood	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
	Alert is issued for the 'Lancashire coastline at Lytham St. Annes, along the coast from Squires Gate to Warton Bank' Flood Warning Area (reference 012FWCTL13A) and the 'Coast at Lytham St. Annes' Flood Alert area (reference 012WACLS) works within the relevant areas within the landfall area would also be stopped whilst the Flood Warning/Flood Alert is active.	
CoT101	Where high concentrations of peat are identified these, will be avoided where practicably possible for the placement of the plant and infrastructure to avoid the possibility of ground gas build up. Where this is not possible, further investigation and appropriate monitoring will be identified undertaken, if necessary.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT102	Where sections of PRoWs are required to be closed during the construction of the onshore export cable corridor and 400 kV grid connection cable corridor, they will not be closed for any longer than three months at any one time, or for six months in total over the whole construction period. Where closures are required for longer periods due to unforeseen circumstances encountered during construction, Lancashire County Council will be informed in writing. This will be in accordance with the Outline PRoW Plan that has been prepared, as part of the Outline CoCP and submitted as part of the application for development consent.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT103	Where suspected contamination is present and piling is proposed, where required detailed piling risk assessment(s) will be developed prior to the commencement of the relevant stage of works. Consultation with the Environment Agency will be sought.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT104	A Detailed Ecological Management Plan (EMP) will be developed in accordance with the Outline Ecological Management Plan (OEMP). The OEMP includes, but is not limited to pre-construction, construction and post-construction and any long-term mitigation and management (where applicable). The OEMP includes, but is not limited to: habitats, hedgerows, birds, bats, badgers, otters, water voles, reptiles, terrestrial invertebrates, and other protected or notable species where relevant. The EMP which will include details of any long-term mitigation and management measures relevant to onshore ecology and sites of particular sensitivity. The EMP will be developed in consultation with the relevant stakeholders.	DCO Schedules 2A & 2B, Requirement 12 (Ecological management plan)
CoT105	No construction works within the operational (i.e. airside) boundary of Blackpool Airport will commence until Civil Aviation Publication (CAP) 791 Parts 1 & 2 approval has been obtained from the Civil Aviation Authority (CAA) in connection with those works. Part 3 will be finalised on the CAA inspection of the completed works.	Secured outside of the DCO process
CoT106	The EMF Compliance Statement has been prepared and submitted with the application for development consent. The Applicants will design the Transmission Assets to ensure compliance with relevant electro-magnetic field (EMF) exposure public health protection standards, where appropriate, as specified in the International	TBD

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
	Commission on Non-ionizing Radiation Protection publication 'Guidelines For Limiting Exposure To Time-Varying Electric, Magnetic And Electromagnetic Fields (Up To 300 Ghz) (1998)' and the Department for Energy and Climate Change publication 'Power Lines: Demonstrating compliance with EMF public exposure guidelines A voluntary Code of Practice (2012).	
CoT107	Where construction activities are undertaken along the onshore export cable corridor within areas of Functionally Linked Land (Lytham Moss Biological Heritage Site) in proximity to Higher Ballam and Lower Ballam, a mitigation area will be provided for supplementary feeding of pink-footed goose and whooper swan during the core wintering bird period (November to March, inclusive). The feeding may comprise retention of spoiled crop and/or the import of additional feed, as appropriate. In addition, scrapes will be provided for terrestrial wader features. This is detailed within the Outline Ecological Management Plan.	DCO Schedules 2A & 2B, Requirement 12 (Ecological management plan)
CoT110	Construction activities associated with the offshore cable pull in for the Morgan Offshore Wind Project and Morecambe Offshore Windfarm Limited will be undertaken in accordance with the Outline Offshore Cable Specification and Installation Plan (CSIP). This will restrict the Applicants to completing one cable pull in (a maximum of five weeks) per wintering season (i.e. during the months of November – February, inclusive), unless otherwise agreed with the MMO, in consultation with Natural England. Detailed CSIP(s) will be developed in accordance with the Outline CSIP.	DCO Schedule 14 (Marine Licence 1: Morgan Offshore Wind Project Transmission Assets) Part 2 - Condition18(1)(e) (Pre-construction plans and documentation) and DCO Schedule 15 (Marine Licence 2: Morecambe Offshore Wind Farm Transmission Assets), Part 2 - Condition18(1)(e) (Pre-construction plans and documentation)
CoT113	Where construction activities are undertaken within the Intertidal Infrastructure Area, mitigation measures will be provided at Fairhaven saltmarsh to reduce disturbance upon roosting wader features of Ribble and Alt Estuary SPA. This may comprise a combination of the employment of a warden, educational signage, and soft fencing. This is detailed within the Outline Ecological Management Plan.	DCO Schedules 2A & 2B, Requirement 12 (Ecological management plan)
CoT114	All permanent infrastructure located between Mean Low Water Springs (MLWS) and Mean High Water Springs (MHWS) will be buried to a target depth of 3 metres, subject to further pre-construction surveys to be reported	DCO Schedule 14 (Marine Licence 1: Morgan Offshore

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
	within Detailed Cable Burial Risk Assessments (CBRAs). An Outline CBRA has been prepared and submitted with the application for development consent.	Wind Project Transmission Assets) Part 2 – Condition18(1)(e)(i)(bb) (Pre-construction plans and documentation) and DCO Schedule 15 (Marine Licence 2: Morecambe Offshore Wind Farm Transmission Assets), Part 2 - Condition18(1)(e)(i)(bb) (Pre-construction plans and documentation)
CoT118	Where areas of potentially significant contamination (e.g. landfills) cannot be avoided within the Transmission Assets Order Limits, ground investigation or other appropriate measures (e.g. use Personal Protective Equipment and/or hazard signage) will be implemented to mitigate potential impacts to, or effects on sensitive receptors. Where ground investigation identifies potential risks to sensitive receptors from contamination, a remediation strategy would be prepared in consultation with the Environment Agency.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT119	Subject to landowner approval, at detailed design stage, hydrogeological risk assessment(s) will be undertaken at St Annes Old Links Golf Club (abstraction borehole ref: GWA_01), if necessary. The hydrogeological risk assessment(s) would be informed by ground investigation information, where relevant and practicable. If undertaken, the risk assessment(s) will inform a detailed site specific crossing design for the installation of the offshore export cables beneath Lytham St. Annes SSSI and the St Annes Old Links Golf Course.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)
CoT120	To mitigate for potential permanent habitat loss associated with each of the onshore substations, mitigation areas south of Newton-with-Scales will be provided for waders and farmland birds. Measures within these areas may include measures, such as, the creation of scrapes and thickening of hedgerows. This is detailed within the Outline Ecological Management Plan. The final measures will be developed and agreed with the relevant stakeholders as a part of the detailed Ecological Management Plan(s) prior to construction.	DCO Schedules 2A & 2B, Requirement 12 (Ecological management plan)
CoT121	Where watercourses are to be crossed by haul roads and temporary access tracks, the culverting or bridging will be appropriately sized to ensure conveyance of existing flows to mitigate the potential for increased flood risk. This	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
	will be agreed in consultation with the Lead Local Flood Authority for Ordinary watercourses; or the Environment Agency for Environment Agency Main Rivers.	
CoT122	The Outline Ecological Management Plan will include details of proposed mitigation measures associated with the direct loss of any ponds within the Transmission Assets Order Limits. Replacement habitat will be provided for ponds considered to be of higher ecological value (e.g. of sufficient conservation interest to support communities of aquatic invertebrates, such as those ponds currently located within the permanent Morgan onshore substation area). Detailed Ecological Management Plan(s) will be developed in accordance with the Outline Ecological Management Plan.	DCO Schedules 2A & 2B, Requirement 12 (Ecological Management Plan)
CoT123	The Project Description (Volume 1, Chapter 3 of the Environmental Statement) sets out that the installation of the Onshore Export Cable Corridor at Blackpool Road Recreation Ground will be undertaken by HDD (or other trenchless techniques). This trenchless technique installation is anticipated to last a maximum of 5 months of total active construction within the grounds. Appropriate exclusion fencing between the entry and exit pits will only be erected for a maximum of 2 months within the 5 months of active construction to mitigation potential impacts to users.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice); DCO Schedules 2A & 2B, Requirement 5 (Detailed design parameters onshore)
CoT124	Where mitigation is required for construction activities at Blackpool Road Recreation Ground (for example, the relocation or provision of alternate amenities) these measures will be secured via separate agreements with the relevant parties. For example, via section 106 agreements under the Town and Country Planning Act 1990 and/or section 111 agreements under the Local Government Act 1972.	Secured via agreements to be entered into pursuant to s106 Town and Country Planning Act 1990 and/or s111 Local Government Act 1972
CoT125	The Project Description (Volume 1, Chapter 3 of the Environmental Statement) sets out that the siting and number of compounds associated with the construction activities at the landfall have been sited, where practicable, to avoid key constraints, including the Ribble and Alt Estuaries SPA and the Lytham St. Annes Dunes SSSI, to reduce disturbance upon roosting waders.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice); DCO Schedule 1 (Authorised Development)
CoT126	To mitigate for potential temporary habitat loss associated with Mill Brook Valley Biological Heritage Site, temporary construction compounds will be micro-sited to avoid the site wherever reasonably practicable.	DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice)

Commitment (CoT) number	Measure adopted	How the measure will be secured (article references may be subject to change during DCO Examination)
CoT127	To mitigate for potential disturbance to otters associated with the installation of onshore export cable corridors, a mitigation area in the home range of otter populations will be provided east of Savick Brook. Measures within these areas may include artificial holts and improvement of reed bed habitats. This is detailed within the Outline Ecological Management Plan. The final measures will be developed and agreed with the relevant stakeholders as a part of the detailed Ecological Management Plan(s) prior to construction.	DCO Schedules 2A & 2B, Requirement 12 (Ecological Management Plan)
CoT128	At detailed design stage, hydrogeological risk assessment(s) will be undertaken in relation to the crossing of Lytham St. Annes SSSI to mitigate potential impacts to the hydrologically dependant surface water features of the sand dune system. The hydrogeological risk assessment(s) will be informed by ground investigation information, where necessary and practicable. These assessment(s) will used to inform the detailed site specific crossing design for the installation of the offshore export cables beneath Lytham St. Annes SSSI.	DCO Schedules 2A & 2B, Requirement 12 (Ecological Management Plan)

1.6.2 Working hours

Core construction working hours

1.6.2.1 As detailed in **Table 1.2**, CoT18 provides details made by the Transmission Assets in relation to working hours. Core working hours for the construction of the intertidal and onshore components will be as follows.

- Monday to Saturday: 07:00 - 19:00 hours.
- Up to one hour before and after core working hours for mobilisation ('mobilisation period') i.e., 06:00 to 20:00.
- No core working will be undertaken on Sundays or Bank Holidays, except in exceptional circumstances.

1.6.2.2 The mobilisation period will include:

- arrival and departure of the workforce at the site and movement around the Transmission Assets that does not require the use of plant;
- site inspections and safety checks; and
- site housekeeping that does not generate significant noise or lighting levels.

1.6.2.3 Activities carried out during mobilisation and maintenance will not generate significant noise levels (such as piling).

1.6.2.4 In certain circumstances, specific works may have to be undertaken outside of the core working hours (e.g., works being undertaken within and/or adjacent to Blackpool Airport and cable installation at landfall and at the River Ribble, emergency works, etc.). In these instances, the relevant local authority will be informed.

Continuous working hours

1.6.2.5 In certain circumstances, specific works may have to be undertaken on a continuous working basis (00:00 to 00:00, Monday to Sunday).

1.6.2.6 During this period, the contractor may undertake the certain activities on a continuous cycle (no further consent required), such as:

- running of support generators or emergency backup supplies;
- remedial works, for example in the event of severe weather; and
- security of sites and protection of open assets.

1.6.2.7 During this period, the contractor may also undertake activities that require continuous working hours, which will be notified to the relevant local authority in writing. These include, but may not be limited to:

- direct pipe and cable pulling works at landfall, and micro-tunnelling or direct pipe, and cable pulling works at the River Ribble Crossing. These activities may require 24-hour machinery operation, dependent on the ground conditions;

- concrete works and finishing at the onshore substations, substation component installation, oil filling of transformers and commissioning of the onshore substations;
- jointing operations along the onshore cable corridor, i.e., at the TJBs;
- testing operations; and
- programme of safety critical operations.

Emergency Works

1.6.2.8 Emergency works may also be undertaken outside of the core working hours. If emergency works are required, the relevant local authority will be notified as soon as reasonably practicable.

1.6.3 General layout and good housekeeping

1.6.3.1 A good housekeeping policy will be applied to the construction areas at all times. As far as reasonably practicable, the following principles will be applied.

- All working areas will be kept in a clean and tidy condition.
- Welfare facilities will be provided for construction staff and visitors in compliance with the CDM Regulations 2015.
- Specific areas within the worksites will be designated as smoking areas and would be equipped with containers for smoking waste – these will not be located at the boundary of working areas or adjacent to neighbouring land.
- Where wheel washing facilities are provided, they will be cleaned frequently (see Outline CTMP (document reference J5).
- Open fires will be prohibited at all times.
- All necessary measures will be taken to minimise the risk of fire and the contractor will comply with the requirements of the local fire authority and the Health and Safety Executive's guidance 168 fire safety in construction (HSE, 2010).
- Waste from the construction areas will be stored securely to prevent wind blow (see Outline Site Waste Management Plan (document reference J1.6) and Outline Dust Management Plan (document reference J1.2)).
- Waste (particularly food waste) will be removed from the welfare facilities at frequent intervals (see Outline Site Waste Management Plan (document reference J1.6)).

1.6.4 Site induction

1.6.4.1 A site induction will be provided for all personnel prior to working or visiting onsite, where applicable. As well as covering safety issues, the

site induction will highlight the environmental constraints onsite, environmental protection measures, and good practice measures.

1.6.4.2 Specific toolbox talks will be included where relevant to cover specific environmental topics and the associated mitigation covered in **Section 1.6.12** of this Outline CoCP. The Principal Contractor(s) will be responsible for ensuring all personnel working onsite have been properly inducted.

1.6.5 Site security, screening and fencing

1.6.5.1 All construction working areas for the onshore export cable corridor, 400 kV grid connection cable corridor, temporary compounds, and the onshore substations sites will be clearly marked and secured with appropriate fencing. This will be done in accordance with the Outline Construction Fencing Plan (document reference J1.10) which sets out types of fencing, its maintenance during construction and its removal, in accordance with Construction (Design and Management) Regulations 2015 requirements. It will also detail fencing to be used around trees during construction (CoT20, CoT03) (also refer to Appendix C of Volume 3, Annex 10.5: Tree survey and arboricultural impact assessment (AIA) of the ES (document reference F3.10.5)).

1.6.5.2 All boundary fences/screens will be maintained in a tidy condition and will be fit for purpose.

1.6.5.3 All temporary screening and fencing will be removed as soon as reasonably practicable after completion of the works.

1.6.5.4 Where possible, access to construction areas will be limited to specified entry points and all personnel entries/exits will be recorded for security and health and safety purposes, as required by the CDM Regulations 2015.

1.6.5.5 Where the haul road meets a public highway, it will be gated or otherwise secured, where feasible and necessary, to prevent unauthorised access.

1.6.6 Construction lighting

1.6.6.1 A Construction Artificial Light Emissions Management Plan will be appended to the detailed CoCP(s), which will set out construction lighting requirements and the measures to control light spill. An outline version of the plan is included as part of the DCO application (document reference J1.11).

1.6.6.2 CoT28 detailed in **Table 1.2** states that construction site lighting will only operate when required and will be positioned and directed to avoid unnecessary illumination to residential properties, sensitive ecological receptors and footpath users, and minimise glare to users of adjoining public highways.

1.6.6.3 Lighting during construction will take into account the requirements set out within the guidance on bats and artificial lighting at night (BCT and ILP, 2023). Lighting units will be designed to minimise illumination

outside the construction works area e.g., will be directional, task orientated and where possible, fully shielded and will include directional beams, non-reflective surfaces and barriers and screens (see also the Outline Ecological Management Plan (document reference J6).

1.6.6.4 Construction phase lighting will be in place as necessary in low light conditions, outside of core working hours (as detailed within **section 1.6.2**) , with lower-level security lighting outside these times.

1.6.7 Management of construction waste

1.6.7.1 Waste from the construction of the Transmission Assets will be managed in accordance with the principles of the waste hierarchy (i.e., avoid, reduce, reuse, recycle, recover and disposal). An Outline Site Waste Management Plan (SWMP) has been developed as part of the CoCP (document reference J1.6), which will be updated during the detailed design process and will be maintained during the construction phases to record the movement of waste from the construction areas.

1.6.7.2 The Outline SWMP has been prepared in line with the CL:AIRE (Contaminated Land: Applications in Real Environments) Definition of Waste: Development Industry Code of Practice (CL:AIRE, 2011). All waste will be transported and managed by appropriately licenced contractors and subject to the duty of care requirements (CoT26).

1.6.7.3 Topsoil and subsoil will be stored in separate stockpiles and managed in line with the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (PB13298) (DEFRA, 2018) (PB13298), Institute of Quarrying (IQ) Good Practice Guide for Handling Soils in Mineral Workings (IQ, 2021) and British Society of Soil Science (BSSS) Working with Soil Guidance Note on Benefitting from Soil Management in Development and Construction (BSSS, 2022). Any suspected or confirmed contaminated soils will be appropriately separated, contained and tested before removal (if required) (CoT25).

1.6.8 Pest control

1.6.8.1 The risk of pest/vermin infestation will be reduced by ensuring any putrescible waste (e.g., food waste) is stored appropriately and is regularly collected from the construction areas. Effective preventative pest control measures will be implemented, where required, and any pest infestation will be dealt with promptly and notified to the relevant local authority as soon as practical.

1.6.9 Emergency planning and procedure

1.6.9.1 Emergency procedures will be developed for construction of the Transmission Assets. The procedures will consider the anticipated hazards and the site conditions. The procedures will include emergency pollution control measures, fire and site evacuation, and instructions to workforce.

1.6.9.2 If a Flood Warning/Flood Alert is issued in the area by the Environment Agency, work will be stopped whilst the Flood Warning/Flood Alert is

active. The Applicants are committed to preparing flood warning and evacuation procedures to ensure access and escape routes are safely maintained for the lifetime of the development (see also CoT97 and **section 1.7.2**).

1.6.9.3 The emergency procedures will also contain emergency phone numbers and the method of notifying local authorities and statutory authorities. The procedures will be displayed at the work sites and all site staff will be required to follow them.

1.6.10 Pollution prevention

1.6.10.1 An Outline Pollution Prevention Plan (PPP) (document reference J1.4) accompanies the application for development consent, which recognises the risk of pollution from construction activities and presents pro-active management practices to ensure that any pollution that may occur is minimised, controlled, reported to the relevant parties and remediated (CoT04).

1.6.10.2 The Principal Contractor(s) will develop and implement appropriate measures to control the risk of pollution due to construction works, materials and extreme weather events.

1.6.10.3 Good practice guidance detailed in the Environment Agency's Pollution Prevention Guidance notes (including Pollution Prevention Guidance notes 01, 05, 08 and 21) will be followed where appropriate, or the latest relevant available guidance (CoT04).

1.6.10.4 During construction of piled foundations, the following guidance will be used: Land Contamination Risk Management (LCRM) (July, 2023) and Managing and reducing land contamination: guiding principles (GPLC), or latest relevant available guidance, where appropriate (CoT05).

Bentonite breakout prevention

1.6.10.5 Bentonite clay is used in the trenchless drilling process as a lubricant as well as a means of removing the excavated material (cuttings or arisings). In Horizontal Directional Drilling (HDD) it is also used as a means stabilising the drilled bore to ensure that it does not collapse between the completing of the final bore diameter and the pulling in of any ducting. Drilling fluid (bentonite) can sometimes break out from the bore to surface in cases of highly fissured clay, gravels or where there are large, interconnected fissures in the ground. Construction works will be carried out in such a way to minimise these risks using mitigation outlined in the Outline Bentonite Breakout Plan (document reference J1.13).

1.6.11 Community engagement

1.6.11.1 The Applicants or Principal Contractor(s) will implement a proactive approach in communications. A framework of the Communications Plan is provided in the Outline Communications Plan (document reference J1.1) and will be further developed post-consent when Principal Contractor(s) are appointed.

1.6.11.2 As set out in **paragraph 1.4.1.8**, the Community Liaison Officer will be responsible for implementing the Communications Plan and liaising with residents and local businesses.

1.6.11.3 A complaints procedure will be implemented during the construction phase. Complaints will be investigated and, where required, further mitigation may be implemented, in consultation with the relevant stakeholders if applicable. All complaints will be logged and the response will be recorded.

1.6.12 Temporary construction areas

1.6.12.1 The construction process will be facilitated by the temporary construction compounds, haul roads and accesses. Compounds may include central offices, welfare facilities and stores, as well as acting as a staging post and secure storage for equipment and component deliveries, as well as for laydown and storage of materials and plant. Haul roads within the temporary working area, the onshore export cable corridor and 400 kV grid connection cable corridor will be installed to minimise impacts during construction on the local road network (CoT24).

1.6.12.2 Temporary access points from the public highway will be installed to facilitate vehicular access into the onshore export cable corridor, 400 kV grid connection cable corridor and onshore substations, during construction (CoT23). These will in accordance with the principles established in the Outline Construction Traffic Management Plan (document reference J5).

1.6.12.3 Construction compounds will be prepared by removing and storing topsoil and subsoil and then constructing hardstanding areas using crushed stone and placed on a geotextile membrane.

1.6.12.4 Temporary construction compounds, storage areas and accesses will be cleared as work progresses and when they are no longer required. On completion of construction work all plant, temporary buildings or vehicles will be removed. Where practicable, material for temporary haul roads and temporary accesses will include recycled materials and will be available for re-use following construction.

1.6.12.5 Joint bays will be completely buried, with the land above reinstated. An inspection cover (with an associated protection slab) will be provided on the surface for link boxes for access during operation and maintenance phase (CoT14).

1.6.12.6 Following completion of the onshore cable installation, the working area will be reinstated to a state commensurate with condition prior to the commencement of works (CoT27). This will include:

- reinstatement of topsoil and subsoil, including loosening or ripping of compacted soil in line with the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (PB13298), Institute of Quarrying (IQ) Good Practice Guide for Handling Soils in Mineral Workings (IQ, 2021) and British Society of Soil Science (BSSS) Working with Soil Guidance Note on Benefitting from Soil

Management in Development and Construction (BSSS, 2022) (CoT08);

- reinstatement of land drainage systems, where necessary post construction drains may be installed, typically parallel to the onshore cable corridor;
- reconstruction of any other drains, ditches or roads crossed using an open cut method;
- replanting of any hedgerows or felled trees as detailed in the Landscape Management Plan(s) (approved by the local planning authorities);
- restoration or repair of fences, gates, tracks or hard standing; and
- reinstatement of any PRoW where temporary diversions have been put in place during construction.

1.7 Management of environmental effects

1.7.1 Introduction

1.7.1.1 The mitigation measures within the following section relate to environmental topics which have been identified through the EIA process and consultation with stakeholders, to date.

1.7.2 Surface water and groundwater environment

Objectives

1.7.2.1 To minimise the risk of surface water flooding during the construction phase, to prevent pollution of surface watercourses, to protect utilities and to minimise the impact on local surface water features.

Management measures

1.7.2.2 Measures will be implemented to minimise the pollution risk to waterbodies from contaminated runoff and to minimise flood risk from increased surface water runoff. Further general Commitments relevant to Surface Water and Groundwater Environment (CoTs 41, 82 and 119) are not repeated below. For full details on these Commitments see **Table 1.2**.

Flood protection

1.7.2.3 Volume 3, Chapter 2: Hydrology and flood risk of the ES (document reference F3.2) and its associated appendices identify the potential flood risks associated with the Transmission Assets and outline embedded and secondary mitigation measures to reduce potential impacts.

1.7.2.4 Where necessary at the compounds located within the landfall area, construction measures will be adopted to maintain the existing level of flood protection during construction, where practicable. These

measures will be discussed with the Environment Agency. These construction measures at the landfall area could also include scheduling work windows against tide times and briefing site personnel regarding weather conditions, tide times and heights. If a Flood Warning/Flood Alert is issued for the 'Lancashire coastline at Lytham St. Annes, along the coast from Squires Gate to Warton Bank' Flood Warning Area (reference 012FWCTL13A) and the 'Coast at Lytham St. Annes' Flood Alert area (reference 012WACLS) works within the landfall area will also be stopped whilst the Flood Warning/Flood Alert is active (CoT97).

1.7.2.5 During the construction phase the Principal Contractor(s) will sign up to the Flood Warning Service and will be alerted by a phone call or text when a Flood Warning becomes active. The flood warning will be applied to the entire Onshore Infrastructure Area located within Flood Zones 2 and 3 to enable site personnel to be evacuated from the site in a timely manner prior to a flood event occurring, if appropriate (CoT95).

Flood control measures

1.7.2.6 Temporary haul road(s) will be installed using permeable gravel aggregate with a geotextile or other type of protective matting, or plastic or metal plates or grating, where required (CoT85).

1.7.2.7 Measures to mitigate flood risk arising from surface water runoff to be implemented during the construction of crossings include stand-off distances from main rivers, ordinary watercourses and associated flood defences (CoT10) and the use of construction drainage (CoT09). In accordance with CoT09 a suitable drainage design will be developed and implemented during construction to facilitate the construction works. This will ensure that existing land drainage is maintained during construction, where possible, and will identify specific drainage measures for each area of land based on information identified and recorded by a suitably qualified drainage expert prior to construction. The information identified will be collated from drainage surveys and will consider local, site specific and landowner knowledge (refer to CoT11 and Outline Operational Drainage Plan (document reference J10)).

1.7.2.8 Where watercourses are to be crossed by haul roads and temporary access tracks, the culverting or bridging will be appropriately sized to ensure conveyance of existing flows to mitigate the potential for increased flood risk. This will be agreed in consultation with the Lead Local Flood Authority for ordinary watercourses; or the Environment Agency for Environment Agency main rivers (CoT121).

1.7.2.9 Ditches and drainage outfalls will be retained at the landfall and along the onshore export cable corridor and 400 kV grid connection cable corridor, where possible. Where it is not reasonably practicable to retain them, any damage will be repaired and reinstated as soon as reasonably practical. The Environment Agency must be notified if damage occurs to any Environment Agency main river or related flood infrastructure (CoT39).

1.7.2.10 Where required, trenched techniques may be used for minor ditches or smaller watercourses that are frequently dry. In these cases, measures

will be implemented to protect water quality and flow and these will be detailed within the detailed CoCP(s) (CoT86).

1.7.2.11 The Principal Contractor(s) will develop field drainage plans in consultation with the relevant landowners. If required, additional field drainage will be installed to ensure the existing drainage of the land is maintained during and after construction (CoT84).

Pollution prevention

1.7.2.12 As set out in **section 1.6.10**, a proactive approach will be adopted to pollution prevention: measures for managing the storage of fuels and chemicals and to control sediment runoff will be set out in the PPP, an outline of which is provided in the DCO application (document reference J1.4). Emergency incident response procedures in case of spillages, leaks or accidents will be set out in the Spillage and Emergency Response Plan. An Outline Spillage and Emergency Response Plan is also provided as part of the DCO application (document reference J1.8)

1.7.2.13 Environment Agency main rivers will be crossed by HDD (or other trenchless techniques) (CoT02). At the River Ribble, direct pipe or micro tunnel trenchless installation techniques will be used for the 400 kV grid connection cable corridor (CoT90). Where a surface watercourse is to be crossed by HDD (or other trenchless techniques), the onshore export cables and 400 kV grid connection cables will be installed at least 2 m beneath the hard bed of any watercourses and the optimal clearance depth beneath watercourses will be agreed with the relevant authorities prior to construction (CoT10).

1.7.2.14 Where trenchless techniques are proposed for crossing ordinary watercourses, the entry and exit pits will be set back a minimum of 8 m from the bank of the watercourse. The same buffer, where possible, will be maintained for the permanent onshore substation sites (CoT82).

1.7.2.15 Furthermore, as set out in **section 1.6.10**, an Outline Bentonite Breakout Plan has been developed (document reference J1.13) which sets out the procedures and measures for minimising the potential for and management of a bentonite breakout, including a response plan should breakout occur (CoT77).

Geology and ground conditions

1.7.2.16 A Contaminated Land and Groundwater Discovery Strategy will be prepared in accordance with the Outline Contaminated Land and Groundwater Discovery Strategy (document reference J1.14) to outline the procedure for construction workers to follow in the event that previously unidentified contamination is encountered during the construction phase. Any construction activities in the area of this material should cease until an appropriate plan for assessment and, where necessary, remediation of the material has been put in place (CoT30).

1.7.2.17 Piling may be used as the foundation solution for large structures, most notably the onshore substations. Where suspected contamination is

present and piling is proposed, detailed piling risk assessment(s) will be developed prior to the commencement of the relevant stage of works. Consultation with the Environment Agency will be sought (CoT103).

1.7.2.18 During construction of piled foundations, the following guidance will be used: Land Contamination Risk Management (LCRM) (July 2023) and Managing and reducing land contamination: guiding principles (GPLC), or latest relevant available guidance, where appropriate (CoT05).

1.7.2.19 Where areas of potentially significant contamination (e.g., landfills) cannot be avoided with the Transmission Assets Order Limits, ground investigation or appropriate measures (e.g., use of personal protective equipment and/or hazard signage) will be implemented to mitigate potential impacts to, or effects on, sensitive receptors. Where ground investigation identifies potential risks to sensitive receptors from contamination, a remediation strategy would be prepared in consultation with the Environment Agency (CoT118).

1.7.2.20 Appropriate personal protective equipment will be used and relevant good working practices applied to avoid potential risk to human health including from any potential ground contamination, in line with relevant available guidance (CoT29).

1.7.2.21 Where high concentrations of peat are identified these will be avoided where practicably possible for the placement of the plant and infrastructure to avoid the possibility of ground gas build up (CoT101).

In addition, good practice will be followed in the case of accidental release or spillage of potentially polluting substances in accordance with the Outline Spillage and Emergency Response Plan (document reference J1.8) and Outline PPP (CoT04) (document reference J1.4). Procedures for construction workers to follow in the event that previously unidentified contamination is discovered is set out within the Outline Land and Groundwater Contamination Discovery Strategy (CoT30) (document reference J1.14).

Monitoring

1.7.2.22 In accordance with CoT101, where high concentrations of peat are identified and they cannot be avoided, further investigation and appropriate monitoring will be identified undertaken, if necessary.

1.7.3 Ecology and ornithology

Objectives

1.7.3.1 To minimise the impact of construction works on habitats, protected species and designated sites and to minimise the loss of nature conservation features such as hedgerows and mature trees (refer to Volume 3, Chapter 3 of the ES (document reference F3.3)). Further general Commitments relevant to Ecology and Ornithology (CoTs 08 ,15, 17, 27, 28, 41, 44, 76, 90, 92, 107, 110, 113, 120, 125, 126, 127) are not repeated below. For full details on these Commitments see **Table 1.2**.

Management measures

1.7.3.2 An Ecological Management Plan(s) will be developed in accordance with the Outline Ecological Management Plan (document reference J6) which includes pre-construction, construction and post-mitigation measures relating to habitats and protected or notable species, where relevant.

1.7.3.3 An ECoW will be appointed by the Principal Contractor(s) to oversee enabling works and construction where necessary. The ECoW will be a suitably experienced professional ecologist. The ECoW will review results of protected species surveys prior to the commencement of works in different areas and will contribute to the preparation of crossing method statements where they could impact on sensitive environmental features such as a watercourse.

1.7.3.4 It will be the responsibility of the Principal Contractor(s) to implement the following measures:

- All works will be carried out taking full account of legislative requirements and Environment Agency guidance;
- Heavy machinery will not be tracked or over stored soils; and,
- Vehicle speeds will be restricted within the working corridor to reduce the likelihood of injury to species on site.

1.7.3.5 Night working is not scheduled as part of the normal construction programme and will only be undertaken in exceptional circumstances. Where night working is unavoidable, light fixtures will be directed away from habitat of value or otherwise notable species. Any such installations will be inspected by the ECoW for compliance.

General habitat and species protection

1.7.3.6 Where hedgerows and/or trees require removal, this will be undertaken prior to topsoil removal. Sections of hedgerows and trees which are removed will be replaced using like for like hedgerow species (CoT13).

1.7.3.7 Where hedgerows or trees require protection during construction activities, a protective fence would be installed as set out within **section 1.6.5** and described in more detail within the Outline Construction Fencing Plan (document reference J1.10).

1.7.3.8 As set out in **section 1.6.6**, construction site lighting will only operate when required and will be positioned and directed to avoid unnecessary illumination to sensitive ecological receptors. Construction site lighting will be designed in accordance with latest relevant available guidance, including Bats and Artificial Lighting at Night GN08/23 (Institute of Lighting Professionals and the Bat Conservation Trust, 2023) and legislation and the details of the location, height, design and luminance of lighting to be used will be detailed within the CoCP. The design of construction site lighting will accord with the details provided in the Outline Construction Artificial Light Emissions Management Plan (document reference J1.11) and Outline Ecological Management Plan (document reference J6) (CoT28).

1.7.3.9 Good practice air quality management measures will accord with guidance set out by the Institute of Air Quality Guidance Management (IAQM, 2024) where appropriate and practicable where ecological receptors are present (CoT33). The Dust Management Plan will include measures to control dust emissions through well-established and effective techniques in accordance with the Outline Dust Management Plan (document reference J1.2).

1.7.3.10 Post-construction, the working area will be reinstated to pre-existing condition as far as reasonably practical in line with the guidance set out in **paragraph 1.6.12** (CoT08 and CoT27).

Species-specific protection

1.7.3.11 The Outline Ecological Management Plan (document reference J6) includes, but is not limited to pre-construction, construction and post-construction and any long-term mitigation and management (where applicable) for habitats, hedgerows, birds, bats, badgers, otters, water voles, reptiles, terrestrial invertebrates, and other protected or notable species where relevant. It will be developed in consultation with the relevant stakeholders (CoT104).

Invasive species

1.7.3.12 An Outline Biosecurity Protocol has been prepared (document reference J1.12) and submitted with the application for development consent. This will be agreed with relevant statutory consultees, will set out the measures for managing biosecurity risks (including invasive species, diseases and pathogens) and will be appended to the detailed CoCP(s) (CoT73).

1.7.4 Historic environment

Objectives

1.7.4.1 To avoid and/or minimise the effects of the Transmission Assets on the setting of existing heritage assets and buried archaeological remains in all parts of the Onshore Infrastructure Area, and deposits of geoarchaeological and palaeoenvironmental interest at several locations within the Onshore Infrastructure Area (refer to Volume 3, Chapter 5: Historic environment of the ES (document reference F3.5)).

Management measures

1.7.4.2 An Onshore and Intertidal Written Scheme(s) of Investigation (WSI) will be developed in line with the Outline Onshore and Intertidal WSI (document reference J9). The Onshore and Intertidal WSI(s) will provide details of the surveys and archaeological mitigation in advance for each stage of the Transmission Assets and during construction (CoT40). The further programmes of archaeological and geoarchaeological investigation will lead to analysis, reporting of results and archiving of data.

1.7.4.3 Activities associated with the Transmission Assets onshore works (other than the onshore substations) will take place within the settings of designated heritage assets. Construction activities will be undertaken in such a way as to ensure that effects on the setting of heritage assets is minimised, as per the Construction Artificial Light Emissions Management Plan (document reference J1.11), the Outline Construction Traffic Management Plan (CTMP) (document reference J5), the Outline Dust Management Plan (document reference J1.2) and the Outline Construction Noise and Vibration Management Plan (document reference J1.3).

1.7.4.4 As set out previously, an Outline Landscape Management Plan (document reference J2) has been prepared as part of the application for development consent. The detailed Landscape Management Plan(s) will be developed in accordance with the Outline Landscape Management Plan. Where practical, landscape mitigation planting will be established as early as reasonably practicable in the construction phase to screen the substations (CoT15).

1.7.4.5 Construction site lighting will only operate when required and will be positioned and directed to avoid unnecessary illumination to the settings of designated heritage assets, set out in **section 1.6.6** (CoT28).

Monitoring

1.7.4.6 The programmes of further investigation undertaken ahead of and during construction (as set out in the Outline Onshore and Intertidal Written Scheme of Investigation, document reference J9), will aim to offset impacts on buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest during construction. Once construction is complete, no further monitoring will be required.

1.7.5 Land-use and recreation

Objectives

1.7.5.1 To maintain the quality of agricultural land and land holdings, and minimise disruption to recreational resources e.g., coastal areas, open country and access land (land designated under the Countryside and Rights of Way Act, 2000), public greenspace, canals and Rivers Trust Waterways, caravan and holiday parks, livery yards and stables, PRoW and other promoted routes) (refer to Volume 3, Chapter 6: Land use and recreation of the ES (document reference F3.6)). Further general Commitments relevant to land use and recreation (CoTs 27, 28, 39, 124) are not repeated below. For full details on these Commitments see **Table 1.2**.

Soil management

1.7.5.2 A Soil Management Plan(s) will be developed in accordance with the Outline Soil Management Plan (document reference J1.7) to characterise and manage soil materials during construction. Soil types have been determined via site-specific survey work. Measures to be included in the Soil Management Plan(s) include the following (CoT81).

1.7.5.3 Prior to the commencement of works, the Principal Contractor(s) via the Agricultural Liaison Officer and project appointed land agent separately will undertake a record of condition, (which will accompany previously captured soil condition data, identifying and describing the physical and nutrient characteristics of the existing soil profiles). Such work will inform the reinstatement under CoT08 (CoT22).

1.7.5.4 Soil will be stored and managed in accordance with Construction Code of Practice for Sustainable Use of Soils on Construction Sites or the latest relevant available government guidance (CoT07).

1.7.5.5 Topsoil and subsoil will be stored in separate stockpiles. Any suspected or confirmed contaminated soils will be appropriately separated, contained and tested before removal (if required) (CoT25). Post-construction, the working area will be reinstated to pre-existing condition as far as reasonably practical (CoT08). All will be undertaken in line with the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (DEFRA, 2018) (PB13298), Institute of Quarrying (IQ) Good Practice Guide for Handling Soils in Mineral Workings (IQ, 2021) and British Society of Soil Science (BSSS) Working with Soil Guidance Note on Benefitting from Soil Management in Development and Construction (BSSS, 2022).

Public Rights of Way and Open Space

1.7.5.6 An Outline PRoW Management Plan (document reference J1.5) has been developed as part of the application for development consent, in order to minimise the disturbance to PRoWs, where practicable. Where practically possible, the PRoWs will be reinstated as soon as reasonably practicable. the impact will be temporary and PRoWs will be reinstated as soon as reasonably practicable. An Outline Open Space Management Plan (within document reference J1.5) includes measures to minimise potential impacts to the users of Lytham St. Annes beach and Blackpool Road Recreation Ground. Detailed PRoW Management Plans will include details of temporary and permanent diversions, closures, gated crossings and signage to be provided during construction and details to reinstate all PRoWs potentially affected during construction (CoT32).

1.7.5.7 Where PRoWs are required to be closed during the construction of the onshore export cable corridor and 400 kV grid connection cable, they will not be closed for any longer than three months at any one time, or for six months in total over the whole construction period. Where closures are required for longer periods due to unforeseen

circumstances encountered during construction, Lancashire County Council will be informed in writing (CoT102).

Land management

1.7.5.8 Construction measures associated with land management are detailed within Section 1.6 of this report.

1.7.5.9 In order to manage impacts to field drainage, the contractor will develop field drainage plans in consultation with the relevant landowners. If required, additional field drainage will be installed to ensure the existing drainage of the land is maintained during and after construction (CoT84). As set out within **paragraph 1.7.5.2**, water supplies would be maintained.

1.7.5.10 Impacts on the Lancashire Coastal Way Long Distance Path and the Ribble Way Long Distance Path will be minimised through site design considerations where reasonably practicable (CoT91) (see Outline PRoW Management Plan (document reference J1.5).

1.7.5.11 Farm access routes between fields within a farm holding will be maintained (where reasonably practicable), or alternative routes agreed with the land holder to enable the continued operation of agricultural land holdings during the construction phase, where this may be possible (CoT96).

1.7.6 Traffic and transport

Objectives

1.7.6.1 To carry out the construction of the Transmission Assets in such a way that maintains highway safety and avoids or minimises adverse effects on local communities and highway users (refer to Volume 3, Chapter 7: Traffic and transport of the ES (document reference F3.7)). Further general Commitments relevant to Traffic and Transport (CoTs 23 and 24) are not repeated below. For full details on these Commitments see **Table 1.2**.

Traffic management

1.7.6.2 An Outline Construction Traffic Management Plan (OCTMP) has been developed (document reference J5). The OCTMP contains the control measures and monitoring procedures for managing the potential traffic and transport impacts of constructing the Transmission Assets. The detailed CTMP(s) will be developed in accordance with the OCTMP.

1.7.6.3 An Outline Highways Access Management Plan (OHAMP) has also been developed to present the details and preliminary access designs for the accesses and haul road crossings associated with the Transmission Assets (document reference J8). The general arrangement for any street works which may be necessary to facilitate the installation of any site accesses has also been included.

1.7.7 Noise and vibration

Objectives

1.7.7.1 To control and limit noise and vibration levels, so far as is reasonably practicable, to minimise disturbance to sensitive receptors (refer to Volume 3, Chapter 8: Noise and vibration of the ES (document reference F3.8)).

Noise management measures

1.7.7.2 The objective is to control and limit noise and vibration levels, so far as is reasonably practicable and to minimise disturbance to sensitive receptors.

1.7.7.3 To manage noise generating construction activities, all works will be carried out in accordance with the following principles:

- Construction works will be undertaken in accordance with the regulatory framework and guidance for noise and vibration e.g., Section 72 of the Control of Pollution Act 1974), to minimise noise and vibration effects and BS 5228 'Code of Practice for Noise and Vibration Control on Construction and Open Sites' (British Standards, 2009).
- Best Practicable Means (as defined in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990) (CoT88) including, but not limited to the following:
  - The use of quieter alternative methods, plant and/or equipment, where reasonably practicable.
  - The use of site hoardings, enclosures, portable screens and/or screening nosier items of plant, where reasonably practicable.
  - Maintaining and operating all vehicles, plant and equipment in an appropriate manner, to ensure that extraneous noise from mechanical vibration is kept to a minimum where possible.
- The Outline Construction Noise and Vibration Management Plan (document reference J1.3) which includes measures to mitigate noise from construction activities associated with the Transmission Assets. Detailed Construction Noise and Vibration Management Plan(s) will be developed in accordance with detailed CoCP(s). Bespoke method statement(s) will be developed to ensure suitable noise limits can be met and monitored on specific sensitive noise receptors (CoT79, CoT80).

1.7.7.4 Where possible, HDD (or other trenchless techniques) crossings will be undertaken by non-impact methods, excluding preparatory works in order to minimise construction vibration beyond the immediate location of works (CoT19).

1.7.7.5 Based on noise modelling results, where noise has the potential to cause significant adverse effects, mufflers and acoustic barriers will be used, where practicable, where HDD (or other trenchless techniques) is

being undertaken (CoT34). Physical barriers will be located to ensure that an enhanced level of noise reduction is provided to the most sensitive receptors.

1.7.7.6 The mitigation measures set out in Construction Noise and Vibration Management Plan (provided in outline within document reference J1.3) will be monitored by the Applicants' contractors throughout the construction phase, and regular audits of the construction work areas will be undertaken.

1.7.7.7 Appropriate remedial actions will be implemented if nonconformity with any of the mitigation measures is identified and recorded. Operational Noise Management Plan(s) will be prepared for the onshore substations to identify the noise limits for the operation of the onshore substations and the measures for how these limits would be monitored (CoT80).

1.7.8 Air quality and dust management

Objectives

1.7.8.1 To minimise the generation of dusts near sensitive receptors during the construction phase of the Transmission Assets (refer to Volume 3, Chapter 9: Air quality of the ES (document reference F3.9)).

Management measures

1.7.8.2 The Principal Contractor(s) will inform site personnel about the need to minimise dust as well as about the health hazards of exposure to excessive dust. Their training will include advice relating to the commitments made in the detailed CoCP(s).

1.7.8.3 A Dust Management Plan will be prepared based on the Outline Dust Management Plan (document reference J1.2) as taken from the IAQM Guidance on the assessment of dust from demolition and construction (IAQM, 2014).

1.7.8.4 The Outline Dust Management Plan also contains procedures to check the dust controls and how to action the complaints procedure.

1.7.8.5 Best practice measures in the detailed DMP(s) will accord with guidance set out by the Institute of Air Quality guidance Management (IAQM, 2024) where appropriate and practicable, and will include measures for monitoring and reporting dust levels, and dust suppression and mitigation measures during construction and operation (CoT33).

Monitoring

1.7.8.6 Dust control measures are proposed to monitor dust levels are set out within the Outline Dust Management Plan (document reference J1.2).

1.7.9 Landscape and visual resources

Objectives

1.7.9.1 Construction works will be carried out in such a way to ensure that disturbance to landscapes and visual receptors is minimised (refer to Volume 3, Chapter 10: Landscape and visual resources of the ES (document reference F3.10)). Further general Commitments relevant Landscape and Visual Resources (CoTs 13, 27, 28, 32, 39, 102) are not repeated below. For full details on these Commitments see **Table 1.2**.

Management measures

1.7.9.2 The detailed Landscape Management Plan(s) will be developed in accordance with the Outline Landscape Management Plan (document reference J2). The detailed Landscape Management Plan(s) will include details of mitigation planting at the substation sites, including the number, location, species and details of management and maintenance of planting. Where practicable, landscape mitigation planting will be established as early as reasonably practicable in the construction phase to screen the substations (CoT15).

Protection of trees and hedgerows during construction

1.7.9.3 Prior to site clearance works, a Construction Fencing Plan will be prepared in accordance with the Outline Construction Fencing Plan (document reference J1.10) that identifies the trees and vegetation that will be retained during the construction phase (CoT20). The Construction and Fencing Plan will set out the fencing measures to be installed and maintained throughout the construction phases, in accordance with Construction (Design and Management) Regulations 2015 requirements. Protective fencing is outlined within Appendix C of Volume 3, Annex 10.5: Tree survey and arboricultural impact assessment (AIA) of the ES (document reference F3.10.5)).

1.7.9.4 Prior to construction, the tree protection fencing will be installed around trees to be retained. The fencing will demark construction exclusion zones and it will be positioned according to the root protection zone of recorded trees. The tree protection fencing will remain *in situ* until the completion of construction.

1.7.9.5 Where possible, unprotected areas of woodland, mature and protected trees (i.e., veteran trees) have and will also be avoided, including the veteran tree located to the north east of National Grid Penwortham substation (CoT03) (refer to Volume 3, Annex 10.5 of the ES (document reference 3.10.5)).

1.7.9.6 All required tree protection demarcation shall be defined as shown on the final tree protection plans.

1.8 References

Bat Conservation Trust (BCT) and Institution of Lighting Professionals (ILP) (2023) Bats and Artificial Lighting at Night. Guidance Note 08/23.

British Standards (2009) BS 5228-1: 2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites.

British Standards (2014) Light and lighting. BS EN 12464-2.

CIRIA (2001) C532 Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors. London, CIRIA.

CIRIA (2015) The SuDS Manual (C753F)

CL:AIRE (2011) Definition of Waste: Development Industry Code of Practice v2.

DEFRA (2018) Construction Code of Practice for Sustainable Use of Soils on Construction Sites (PB13298) [Online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/716510/pb13298-code-of-practice-090910.pdf Accessed: September 2024.

Environment Agency (2020, updated 2023) Land Contamination: Risk Management (LCRM). Web-based resource available at: Land contamination risk management (LCRM) - GOV.UK (www.gov.uk). Accessed March 2024.

Environment Agency (2020) Guidance for Pollution Prevention 1: Understanding your environmental responsibilities – good environmental practices.

Health and Safety Executive's (HSE) (2010) Health and Safety Guidance 168 Fire safety in construction. London: TSO.

Institute of Air Quality Management (2014) Guidance on the assessment of dust from demolition and construction.

Institute of Civil Engineers (ICE) (2023) Guidance Document for PAS 2080. Practical actions and examples to accelerate the decarbonisation of buildings and infrastructure.