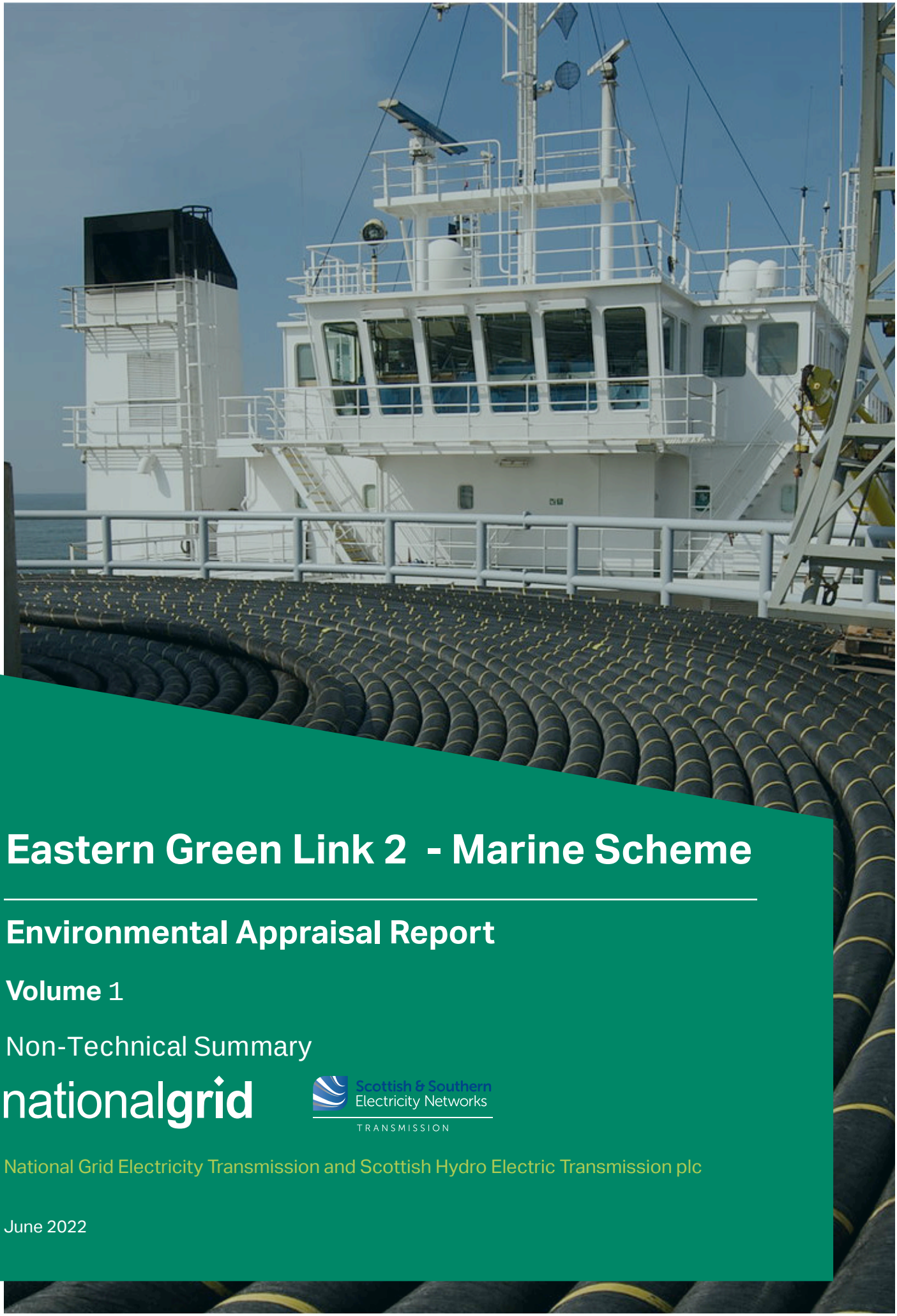


Eastern Green Link 2 - Marine Scheme

Environmental Appraisal Report

Volume 1

Non-Technical Summary

nationalgrid

Scottish & Southern Electricity Networks
TRANSMISSION

National Grid Electricity Transmission and Scottish Hydro Electric Transmission plc

June 2022

Quality information

Prepared by	Checked by	Verified by	Approved by
Various	Various		

Revision History

Revision	Revision date	Details
V1.0	07 June 2022	Updated for legal review
V2.0	29 June 2022	Final for issue

Prepared for:

National Grid Electricity Transmission and
Scottish Hydro Electric Transmission Plc

Prepared by:

AECOM UK Limited
1 Tanfield
Edinburgh EH3 5DA
United Kingdom

T: +44 131 301 8600
aecom.com

In association with:

Xodus Group (Shipping and Navigation);

Wessex Archaeology (Marine Archaeology); and

Brown and May Marine Ltd (Commercial Fisheries).

Table of Contents

Figures

Tables

Introduction

National Grid Electricity Transmission (NGET) and Scottish Hydro Electric Transmission plc (SHE Transmission) are proposing the construction of a submarine High Voltage Direct Current (HVDC) link between Peterhead in Aberdeenshire and Drax in North Yorkshire. This is known as the Eastern Green Link 2 Project (hereafter referred to as "the Project").

NGET and SHE Transmission own the high-voltage electricity transmission network in England and Wales, and in northern Scotland respectively. They are responsible for ensuring electricity is transmitted safely and efficiently from generation to user. SHE Transmission will be the Transmission Owner (TO) for the Project within Scottish jurisdiction and NGET will be the TO within English jurisdiction.

The Eastern Green Link 2 Project comprises the following components:

- **Scottish Onshore Scheme:** From the existing transmission system and an adjacent substation approximately 1 km of buried high voltage alternating current (HVAC) cable will connect to a proposed converter station. A further approximately 1 km of buried HVDC will extend from the proposed converter station to the landfall at Sandford Bay, Peterhead. The scope of the Scottish Onshore Scheme ends at MLWS, and is covered by a separate consent application which was submitted in November 2021 to Aberdeenshire Council and permission granted in May 2022 (APP/2021/2681);
- **Marine Scheme:** Commencing at MHWS within Sandford Bay, approximately 436 km of submarine HVDC cable, comprising 150 km in Scottish waters and 286, km in English waters, will extend to MHWS at Fraisthorpe Sands on the East Riding of Yorkshire coast. This comprises the subject of the MLAs to MS-LOT and the MMO, which this EAR supports; and
- **English Onshore Scheme:** From MLWS at Fraisthorpe Sands, approximately 67 km of underground buried HVDC will connect to a proposed converter station in Drax within the Selby District. The proposed converter station will then connect to an existing substation within the boundary of the Drax Power Station by approximately 100 m of HVAC cable. This is subject to a separate consent application which was submitted to East Riding of Yorkshire Council (Planning Portal Ref: PP-11285186v1BZD) and Selby District Council (Planning Portal Ref: PP-11291708v1GQS) in May 2022.

SHE Transmission and NGET are submitting Marine Licence Applications (MLAs) to the Marine Scotland Licensing Operations Team (MS-LOT), the regulator for MLAs in Scotland, and to the Marine Management Organisation (MMO), responsible for marine licensing in English waters for the Marine Scheme.

The MS-LOT and MMO confirmed the Marine Scheme is not considered to be 'Environmental Impact Assessment (EIA) Development'. Notwithstanding this, in order to provide the MMO and MS-LOT the relevant information to assess and understand the likely impacts of the proposed activities, this document has been prepared as non-statutory Environmental Appraisal Report (EAR) (Volume 2 and 3) to accompany the MLAs to the MS-LOT and the MMO.

This Non-Technical Summary (NTS) presents the findings of the EAR for the Marine Scheme in non-technical language.

The EAR is made up of three volumes:

1. Volume 1: Non-Technical Summary
2. Volume 2: Main Report
3. Volume 3: Technical Appendices

The EAR has been co-ordinated by AECOM UK Ltd (AECOM) on behalf SHE Transmission and NGET. Technical chapters have been completed by a combination of authors from AECOM, Wessex Archaeology, Xodus Group Ltd and Brown and May Marine Ltd.

Why Do We Need the Marine Scheme?

As part of their commitments to tackling climate change, the UK and Scottish Governments have set legally binding targets to become net-zero in all greenhouse gases by 2050 for England and Wales and 2045 for Scotland.

The UK Government has also identified a target of delivering 40 gigawatts (GW) of renewable wind energy by 2030, which is enough to power every home in the UK.

As the UK transitions away from traditional forms of fuel to power vehicles and heat homes, there will be a greater need for renewable and low carbon electricity. To move this renewable and low carbon energy from its source and into people's homes and businesses the UK needs to increase the capability of its electricity transmission network.

The Project is a major reinforcement of the electricity transmission system which will provide additional transmission capacity between the north and south of the UK across transmission network boundaries, ensuring that green energy is transported from where it is produced to where it is needed. It is particularly required to help bring Scotland's extensive reserves of renewable energy to millions of homes across the rest of the UK.

A second HVDC link, Scotland England Green Link 1 (SEGL1) / Eastern Link 1 (EL1) from Torness in East Lothian to Hawthorn Pit in County Durham, is being developed jointly by NGET and Scottish Power Transmission (SPT), however, that project is separate to this and will not be discussed further in this NTS.

This Project has been identified by the National Grid Electricity System Operator who produces annual reviews to find credible ways in which the energy system could evolve, and to ensure that energy is delivered efficiently and reliably to where it is needed. The annual reviews include:

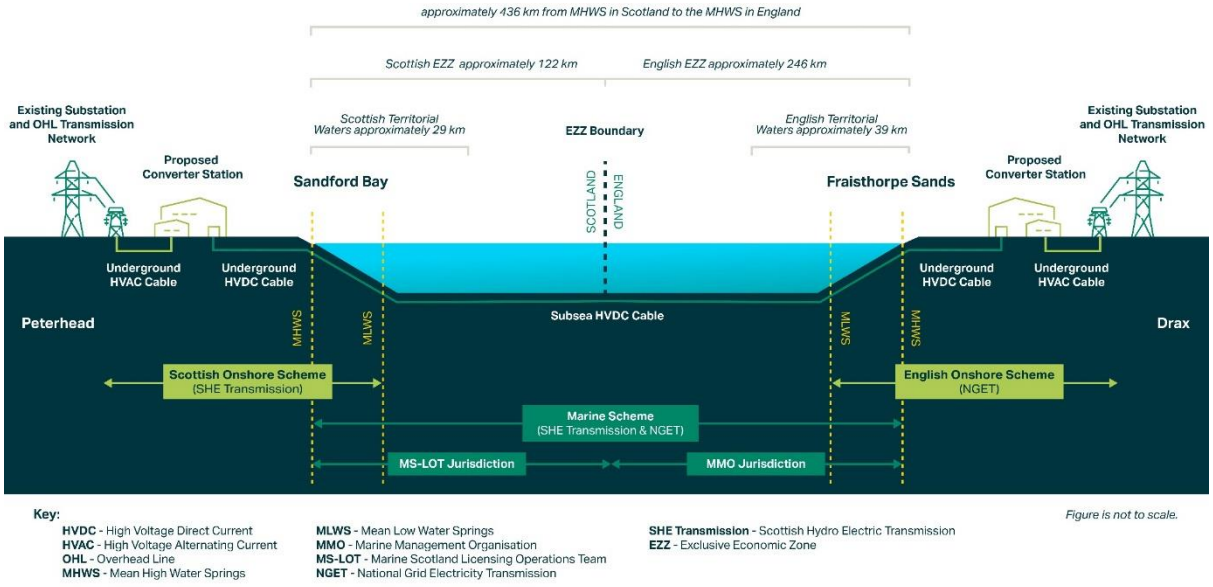
- **Future Energy Scenarios (FES)** – these represent a range of different, credible ways in which the energy system could evolve taking account of policy and legislation, including net zero targets.
- **Electricity Ten Year Statement (ETYS)** – using data from the FES, National Grid Electricity System Operator undertakes an annual assessment to identify points on the transmission system where more network capability is needed to ensure that energy is delivered efficiently and reliably to where it is needed.
- **Network Options Assessment (NOA)** – the TOs and other stakeholders respond to ETYS with solutions to address network capability requirements. These are assessed by National Grid Electricity System Operator so that the most economic and efficient solutions are recommended to proceed, and others told to hold or stop.

The need for the Project has been identified and assessed as part of this continuous annual cycle, and the Project was given a 'proceed' signal in the first NOA published in 2015/16. It has continued to appear in each yearly NOA Report and is included in the most recent NOA 2021/22, published in January 2022.

How the Marine Scheme Will Work

The Marine Scheme will allow the transfer of electricity from Scotland to England (and vice versa as required) via two subsea cables. These will be connected to a converter station and electricity substation at each end of the link via onshore underground cables, as part of the Onshore Schemes.

The ELG2 Link will use HVDC technology as this allows electricity to be transmitted at high capacities more efficiently over long distances. However, the onshore transmission and distribution networks in England and Scotland both operate using predominantly HVAC. Converter stations are to be located at either end of a transmission link which will convert the electricity between HVDC and HVAC.



The Marine Scheme

Overview

The Marine Scheme is a submarine cable system made up of two HVDC single core metallic conductors and a fibre optic (FO) cable, providing 2 Giga Watts (GW) of transmission reinforcement. The submarine cables and FO cable will be installed within a 500 m wide corridor called the 'Marine Installation Corridor'. The Marine Installation Corridor is approximately 436 km long.

The Marine Installation Corridor extends from Mean High Water Springs[1] (MHWS) at the landfall at Sandford Bay, Peterhead, Scotland, crossing Scottish territorial and offshore waters, extending into English offshore and territorial waters to MHWS at the landfall at Fraisthorpe Sands, Bridlington, England. The Marine Installation Corridor follows a broadly north to south alignment from kilometre point (KP) 0, at the Scottish landfall, to KP436 at the English landfall. The KPs are used to provide a reference point so that features and potential environmental impacts can be adequately described in the EAR. Approximately 150 km of the Marine Installation Corridor lies within Scottish territorial and offshore waters, with approximately 286 km within English territorial and offshore waters.

[1] MHWS is the average throughout the year, of two successive high waters, during a 24 hours period in each month when the range of the tide is at its greatest (Spring tides) (HM Government, 2022).

Consideration of Alternatives

Reflecting the why we need the Marine Scheme, the primary objective of the Project is to reinforce the electricity network and increase transmission capacity between Scotland and England by 2029 in order to enable the efficient and economic transmission of electricity.

The strategic alternatives of the 'do nothing' scenario has been considered, where the Project is not developed. In such a scenario, transmission system reinforcement between Scotland and England is not realised and this would not achieve the primary objective of the Project. Electricity flow between north and south of the UK is forecast to increase at all levels across transmission and distribution because of increased generation capacity connecting to the electricity network. In a 'do nothing' scenario, this forecast growth will put pressure on the existing network, which may result in a requirement for constraining action by the TOs to restrict power flows and ensure equipment capabilities are not exceeded. The cost of constraint actions would be passed on to consumers. The TOs predict that the 'do nothing' scenario will result in a sub-optimal operation of the network in the long-term.

Investment in network reinforcement, as proposed under the 'do something' scenario will contribute to additional transmission capacity between networks in Scotland and England, increasing the ability to accommodate new and additional generation input into the network. In the early stages of the Project, a number of options were put forward to identify connection points to Scottish and English electricity transmissions systems technology and a selection of submarine cable routes through Scottish and English waters.

The approach used to identify and assess both the potential landfall sites and also the marine installation corridor options followed an iterative and integrated process. It allowed the identification and consideration of technical, socio-economic, environmental and cost constraints. The aim was to identify sites or route options which best balance these factors and used a staged appraisal process in accordance with National Grid's 'Approach to Options Appraisal'. Broadly, this process can be summarised by three key stages:

- **Phase 1**: Strategic Options Appraisal (SOA). This stage focused on the preliminary identification of key environmental, social and technical constraints against seven Strategic Marine Route Options, with 33 sub-routes;
- **Phase 2:** Marine Route Optioneering. This included a high-level assessment of the 33 sub-routes associated with the six offshore options as part of the refinement of the potential routes; and
- **Phase 3:** Marine Survey Corridor Development and Selection. This further considered multidisciplinary constraints of the preferred Eastern Green Link 2 route from Peterhead to Drax substation, identifying key constraints, crossing requirements and the development of a suitable survey corridor.

Detailed information regarding this process is provided in Chapter 5: Alternatives and Design Development of Volume 2 of the EAR.

The landfalls were considered based on a range of environmental, social, economic and technical factors, including the viability of potential onward integration with suitable connection points.

Sandford Bay, approximately 2 km south of the centre of Peterhead, was the preferred Scottish landfall location. Fraisthorpe Sands, approximately 2 km east of the village of Fraisthorpe, Bridlington Bay, was the preferred English landfall location.

Project Description

The physical aspects of the Marine Scheme are set out in terms of the Installation, Operation and Maintenance and Decommissioning Phases of the Marine Scheme as summarised below:

- **Installation Phase**: Scale and key characteristics of the submarine cable system, infrastructure and equipment to be used during cable laying, jointing and burial. Options for the cable installation including pre-installation survey methods, types and numbers of vessels to be used, and installation techniques.

- **Operation and Maintenance Phase**: The in-situ physical characteristics of the submarine cables including information about their design, operation, repair and maintenance. Emissions from the cables produced during their operation, in the form of heat, and electromagnetic fields (EMF) are also discussed.
- **Decommissioning Phase**: Activities involved in decommissioning a submarine power cable at the end of its operational life.

Marine Scheme Overview

The Marine Scheme will provide 2 Giga Watts (GW) of transmission reinforcement from Scotland to England. It comprises a submarine HVDC cable system, which will be installed within a Marine Installation Corridor approximately 436 km long and up to 500 m wide.

The Marine Installation Corridor extends from MHWS at the Scottish landfall at Sandford Bay crossing Scottish territorial waters, Scottish offshore waters, English offshore waters and English territorial waters to MHWS at the English landfall at Fraisthorpe Sands. Approximately 150 km of the Marine Installation Corridor is within Scottish waters (territorial and offshore) and approximately 286 km within English waters (territorial and offshore).

Landfalls

Scottish Landfall – Sandford Bay, Peterhead

The Scottish landfall is the interface between the Scottish Onshore Scheme and the Marine Scheme. The Scottish landfall is located at Sandford Bay, as shown in Volume 2 Chapter 2: Project Description, Figure 2-3.

English Landfall – Fraisthorpe Sands, East Riding of Yorkshire

The English landfall is the interface between the Marine Scheme and the English Onshore Scheme. The location for the landfall area is Fraisthorpe Sands, East Riding of Yorkshire, as shown on Volume 2 Chapter 2: Project Description, Figure 2-4.

Installation Programme

As shown in Figure 1, the installation of the Marine Scheme is anticipated to commence in 2025 and may take up to five years to complete avoiding winter months, where feasible.

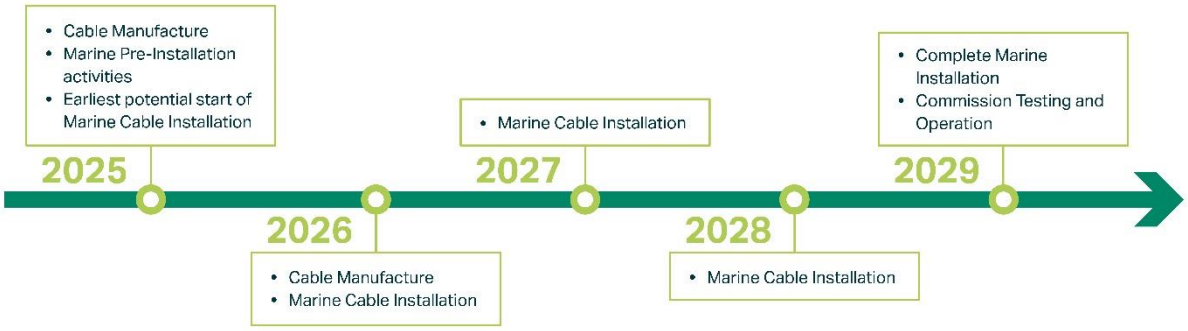


Figure 1: Indicative Installation Programme

Marine Installation Corridor

Within the Marine Installation Corridor there will be two submarine HVDC cables. These may be bundled together with the Fibre Optic (FO) Cable into a single trench or may each be laid separately in their own trenches with the FO cable bundled with one of the HVDC cables. It is most likely they will be bundled in a single trench, however separately laid cables are appraised in the EAR as the worst case where this is applicable.

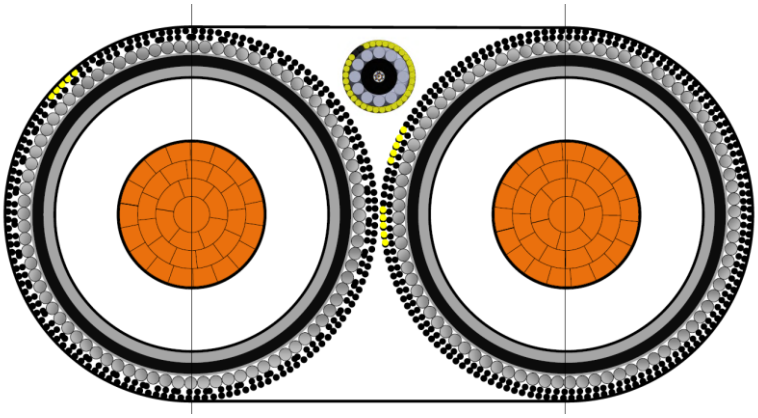


Figure 2: Bundled HVDC cables with fibre optic cable

The cables will be trenched to a minimum depth of lowering below the seabed level of approximately 0.6 m, with a target depth of lowering of approximately 1.5 m achieved where possible. Where the minimum depth of lowering cannot be met, a risk assessment will be undertaken to determine whether the achieved depth of lowering provides sufficient protection or whether remedial external protection is required. Each trench will be between one and six metres wide (depending on the nature of the seabed), with a potential area of associated seabed disturbance up to 25 m wide in some places. If a two-trench approach is used, then the trenches will have a maximum separation of 30 m, although the separation expected to be less than 30 m wherever possible.

The cables used will be non-draining, containing no free oil and therefore contain no liquid or gases that could be released into the marine environment even in the event of severe mechanical damage to the cables. The submarine cables will be designed to withstand mechanical forces during installation and repair / recovery operations.

Installation Phase

Installation Vessels

The use of Cable Lay Vessels or a Cable Lay Barges (Figure 3), and installation technologies such as cable trenching tools or ploughs will be confirmed after award of the installation contracts (post-consent). Other vessels that may be used to install the Project include jack-up barges, back-hoe dredgers, rock placement vessels, guard vessels and other specialised support vessels.

Figure 3: Representative Cable Laying Vessel and Cable Lay Barge

Pre-installation Activities

Building on the detailed information already gathered, further pre-construction surveys will be undertaken to inform the optimum route for the cables within the Marine Installation Corridor, and aid in the planning of the cable installation activities. The surveys will confirm if there are any obstructions or significant changes to seabed conditions and bathymetry (depth of water), and also help to inform a detailed unexploded ordnance (UXO) assessment.

Before the cables are installed, there will be a series of route preparation activities and surveys including:

- Sea trials (trial submarine cable trenching tools in areas of very hard or very soft seabed);
- Cable route clearance (to remove any obstructions such as boulders);
- Pre-lay grapnel[2] run (to remove any seabed debris, such as wires);
- Pre-lay submarine intervention e.g., installation of crossing infrastructure (specific measures to protect in-service cables / pipelines); and
- Sandwave lowering, using Mass Flow Excavators (MFE), (may be used to support cable trenching by displacing sediment).

After these activities, the cables will be installed in sections and will either be laid and trenched at the same time or laid and trenched later. The cables will have to cross 25 existing assets and crossing agreements will be made with the owners of these assets in advance of activities in proximity to the assets.

Landfall Installation

The cables will be installed using Horizontal Directional Drilling[3] (HHD), which is a trenchless method what does not require any works within the sensitive intertidal zone (the area where the sea meets the land between high and low tides). HDD will start from temporary drilling compounds, one within each of the Scottish and English Onshore Schemes.

[2] A small anchor
[3] Horizontal Directional Drilling is a construction technique where a tunnel is drilled under the waterway and the cable is pulled through the drilled underground tunnel.

The temporary drilling compounds will be located close to the Transition Joint Bay, where the submarine cables will connect to the onshore cable system above MHWS and outside the Marine Scheme. The HDD work may take up to six months to complete at each landfall, with vessels being on site for a much smaller portion of that time.

It is assumed that there may be up to two aborted or failed drills[4] and up to four successful drills at each landfall. Completed boreholes may be up to 1.5 km in length and are anticipated to breakout within exit pits, created using back-hoe dredgers, within the Marine Installation Corridor. Ducts would be installed within the drills prior to cable pull in.

Drilling fluids will be selected by the Contractor on the basis of drilling performance and environmental requirements to ensure that they have no harmful effects on the surrounding marine environment. Some drilling fluid and solids will be lost to the marine environment during breakout however, this will be minimised insofar as practicable through the implementation of industry best practice.

Following installation of ducts within the successful drills, up to 24 temporary protective concrete mattresses will be used within the footprint of the exit pits to protect the ducts from damage before cable installation.

A pre-cut trench will be created leaving the exit pit following the final cable route for a distance of approximately 100 m. The cable will be connected to a messenger wire and winched landward through the duct to the transition joint bay where it will be anchored and jointed to the onshore cables. The cable will be fixed in the duct using an appropriate material pumped from the land to a bleed valve installed at the seaward end. Once the cables are installed, the exit pit will be backfilled with rock placement, including the use of concrete mattresses below, to mean seabed level.

Submarine Cable Installation

Cable laying methodologies which may be used include, simultaneous cable lay and trenching or surface cable lay followed by post-lay trenching of the cables. A temporary 500 m (advisory) safety zone will be established around the installation vessels which ever method is selected by the Contractor.

Jointing of cable lengths will be required every 50 km to 100 km, with joints made onboard the Cable Lay Vessel and taking up to a week to complete. Once the cable joint has been made, cable laying will continue as normal.

Crossings

Twenty-four assets have been identified crossing the Marine Installation Corridor. Crossing agreements will be made with the parties owning assets crossed and all parties have or are in the process of being informed about the potential for a crossing. Crossing agreements will detail the physical design of the crossing and the rights and responsibilities of both parties to ensure that neither asset is compromised. The types of crossings proposed include the use of rock placement, concrete mattresses or pipe bridges.

For crossing multiple assets in close proximity to each other, a single integrated crossing structure may be used resulting in the overall area of the crossing potentially being larger than that required for a single crossing.

Cable Trenching and Protection

The primary cable protection method is to trench the cable along the majority of the Marine Installation Corridor to protect the cables from interactions with other marine activities including fishing gear and anchors. Where the cables cannot be adequately protected by trenching, external cable protection will be deployed including rock berms and/or concrete mattresses. Use of rock berms will be minimised wherever possible, with changes to the trenching equipment or repeat trenching considered first to help achieve trenching, with rock berms as a last resort.

There are four generic types of cables trenching equipment which may be deployed:

[4] A drill is the method used to create a bore under the ground before the duct is installed.

- Cable burial ploughs (displacement or non-displacement);
- Jet trenching (towed, free swimming or tracked);
- Mechanical trenchers (tracked); and
- MFE.

The minimum target depth of lowering through trenching is anticipated as achievable for the majority of the cable route, provided that the correct trenching tools are selected, dependent on the seabed conditions present along the installation corridor. Choice of trenching tools will be informed by the findings of the pre-installation surveys and micro-routeing requirements for the submarine cables. This will be assessed to confirm suitability of expected seabed sediment conditions following the award of the installation contract.

Interim and As-Built Surveys

Interim surveys will be performed after each trenching operation to determine if trenching is to a sufficient depth and to identify areas required remedial activities such as additional trenching passes or rock placement.

Once the cables are fully installed and protected, an “as-built” survey will be undertaken to confirm the positions of the cables and associated protection measures. The “as-built” surveys will form the baseline for further monitoring during the Operation and Maintenance Phase.

Operation and Maintenance Phase

Monitoring Surveys

Surveys will be undertaken every one to two years following completion of the Installation Phase to determine the seabed level which will allow cable trenching to be assessed. The results of the initial surveys will be used to determine the frequency of future surveys and identify areas requiring more regular surveys based on the potential threats to the cables. The requirements for surveys at crossing locations will be determined by the Crossing Agreements.

Cable Maintenance

The cable system is designed to avoid the need for routine maintenance and no planned maintenance work is anticipated for the cables or their infrastructure during the lifetime of the Marine Scheme. However, monitoring surveys may identify the need for preventative maintenance, for example, to increase external protection (e.g., in highly localised areas of mobile seabed, where there is a risk of exposure of the cables over time). The methods and scale of materials anticipated during the Operation and Maintenance Phase fall within the parameters of the impacts assessed by this appraisal for the Installation Phase.

Submarine Cable Repairs

Repairs to submarine cables that have been designed, manufactured, installed and protected correctly are not common. Situations where a repair may be required include internal faults (mechanical or electrical faults due to a design or manufacturing error or defect) and external faults (including third party damage from anchor damage, towed fishing gear or other third party works).

Decommissioning Phase

In the years leading up to the end of the Marine Scheme’s operational life, the options for decommissioning will be assessed. The objective in undertaking these assessments will be to minimise the short and long-term effects on the environment, whilst ensuring that the sea is safe for others to navigate. The level of decommissioning will be based upon the regulations, best practices and available technology at the time of decommissioning. The principal options for decommissioning include:

- Leaving the cable buried in-situ;
- Leaving the cable buried in-situ and provide additional protection;

- Remove sections of cable that present a risk; or
- Remove the entire cable.

Public Consultation

To ensure that the plans take account of the views of local communities, SHE Transmission and NGET delivered comprehensive pre-application consultations (PAC) in 2022, to gauge local residents' and stakeholders' views. The aim of the public consultations was to inform consultees about the Project at an early stage, understand their views and concerns and collate their feedback.

Full details of all consultation undertaken is provided in EAR Volume 2 Chapter 6: Consultation and Stakeholder Engagement.

Scotland

SHE Transmission 'soft launched' the Project in Scotland in October 2020, with a high-quality online consultation, based upon an online village hall event concept. . At the same time, SHE Transmission proactively introduced the project to the wider community and stakeholders by issuing a newsletter to landowners, issuing letters (via email) to stakeholders, and launching the project website.

A PAC event, to fulfil the statutory requirements of the Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013, was held in relation to the Scottish Marine Scheme on 06 and 07 April 2022. The PAC event included a face-to-face event at Peterhead Football Club and two online virtual consultation events. The opportunity for discussion and questions with the Project Team was provided, with the further opportunity to submit feedback online. A leaflet was produced, and a dedicated area created on the Project website[5]. This consultation aimed to provide up-to-date information relating to the Marine Scheme in Scottish territorial waters. Exhibition boards covered a wide range of information including Project timelines, alternatives and environmental considerations. An example consultation board is provided in Figure 4. A Marine Scheme PAC Report to fulfil the requirements of the 2013 Regulations was produced and supports the Marine Licence application to MS-LOT, which includes specific feedback received and details of how the Marine Scheme has responded.

Scottish & Southern Electricity Networks
TRANSMISSION

nationalgrid

Subsea Cable Installation

The subsea cable system will be installed within a Marine Installation Corridor approximately 500m wide and 436km long. The installation of the cables will be split into the following campaigns:

Pre-Lay Survey

Further marine surveys will be undertaken within the Marine Installation Corridor to inform detailed route engineering and refinement by the installation contractor. The surveys will aim to identify and confirm the location of potential constraints to cable installation including seabed sediment, sensitive environmental features, bathymetry, unexploded ordinance and other seabed features.

Cable Route Clearance

Clearance of sandwaves, removal of seabed debris, boulders and out of service cables. Cable route clearance may involve the following activities:

- Sandwave clearance using Mass Flow Excavator (MFE);
- Boulder clearance using grabs or ploughs;
- Debris clearance using a Pre-Lay Grapnel run (PLGR); and
- Removal of out of service cables.

Cable Lay and Burial

There are two main options to enable cable lay and burial:

Pre-lay trenching – a plough is used to create a trench or trenches into which the cable are laid prior to the trench(es) being backfilled.

Post lay trenching – the cable is laid on the seabed and a trenching tool follows the cable lowering it into the seabed.

Equipment being considered include, cable plough **(a)**, displacement plough, jet trenchers **(b)**, mechanical trenchers, and MFEs. The selection of equipment will be dependent on the seabed conditions encountered along the Marine Installation Corridor.

(a) Cable plough

(b) Jet trenchers

Shore Approaches

The cables will be brought ashore at the landfall using Horizontal Directional Drilling (HDD).

This method drills conduits to carry the cables under the intertidal zone and the near shore seabed at the landfall and then installs ducts within which the cables will be installed.

This approach minimises the need for work in the intertidal zone and associated impacts on environmental receptors including protected species, sensitive habitats and human receptors using the foreshore.

Cable Protection

In some areas where the seabed is unsuitable for burial, e.g. bedrock, where the sediment is thin or where the cable is required to cross existing infrastructure, the cable may be protected using rock placement or other external protection system.

Post Installation Surveys

Detailed geophysical and imaging surveys will be undertaken to confirm the location of the installed cable and protection, e.g. trenching, rock placement etc.

Figure 4: SHE Transmission example consultation board

England

Public consultation in England was led by NGET. The pre-application consultation took place in two phases: Phase 1 public consultation undertaken in March / April 2021; and Phase 2 public information events held in February / March 2022 providing more detailed information on the Marine Scheme located within English waters. It included how the design had progressed since Phase 1 public consultation, as well as the likely effects on the local area.

Environmental Appraisal

Requirement for Environmental Appraisal

The Marine Scheme does not require a statutory (legal) Environmental Impact Assessment (EIA), as confirmed by MS-LOT in December 2020, and the MMO in March 2021. This is because installation of a cable within the UK Marine Area is not considered to an EIA project under Scottish and English Marine EIA Regulations.

However, SHE Transmission and NGET have statutory (legal) obligations as transmission licence holders under the Electricity Act 1989; which include the requirement to '*develop and maintain an efficient, coordinated and economical system of electricity transmission'* as well as some specific responsibilities with regards to the preservation of amenity. In order to help fulfil these obligations and to provide the MMO and MS-LOT with the relevant information to assess and understand the likely impacts of the proposed activities, a non-statutory Environmental Appraisal Report (EAR) has been provided, in line with industry best practice.

Further details of the approach to environmental appraisal can be found in Volume 2 Chapter 4: Approach to Environmental Appraisal.

Approach to Environmental Appraisal

The EA follows a systematic approach to identifying potential impacts of the Marine Scheme on physical, biological and human receptors. This is explained below.

Scoping Stage

The potential interactions between the Marine Scheme and known environmental sensitivities were recorded through an Environmental Issues Identification (ENVID) matrix and presented in the non-statutory scoping report.

The scoping report was submitted to both MS-LOT and the MMO on 06 July 2021. The responses received are provided in EAR Volume 2 Chapter 6: Consultation and Stakeholder Engagement.

Baseline Studies

In order to appraise the potential effects resulting from the Marine Scheme, the existing environmental conditions had to be understood. This is known as the baseline environment.

The baseline environment is understood by collecting information through some or all of the following sources:

- Review of field surveys undertaken for the Marine Scheme;
- Review of specialist baseline studies (desk-based technical reviews);
- Detailed review of secondary sources (i.e., existing documentation and literature); and
- Stakeholder consultation.

The key data sources used to establish the baseline for each technical discipline are described in EAR Volume 2 Chapters 7 to 16.

Appraisal of Potential Effects

The methodology for the appraisal has been developed to incorporate The Guidelines for Environmental Impact Assessment by the Institute of Environmental Management and Assessment (IEMA), published in 2004 and the "source-pathway-receptor" model.

The terms 'interaction', 'impact' and 'effect' have been used throughout the appraisal. These terms are defined in Table 1 below and were used appropriately throughout the appraisal.

Table 1: Definition of Interaction, Impact and Effect

Terms	Definition
Interaction	The link between an activity and the receptor. There must be an interaction for an effect to occur.
Impact	The action that occurs as a result of an identified interaction. The predicted change in the baseline environment.
Effect	An observable consequence of impacts, usually measurable. Effects only occur when an activity or environmental impact is present within an environment that is sensitive to it.

There are different types of impacts which could potential occur as a result of interaction with the Marine Scheme, as defined in Table 2 below.

Table 2: Impact Definitions

Terms	Definition
Direct impact	Impacts that result from a direct interaction between the Marine Scheme activities and the receiving environment.
Indirect impact	Impacts on the environment, which are not a direct result of the Marine Scheme / Marine Scheme activities, often produced away from the activity or as a result of a complex pathway.
Cumulative impact	Impacts that result from incremental changes caused by other present or reasonably foreseeable actions together with the Marine Scheme (European Commission 1999). Generally considered to be the same impact but from different projects e.g., underwater noise from two separate projects combining to affect marine mammals.
Beneficial impact	An impact that is considered to represent an improvement on the baseline condition or introduces a new desirable factor.
Adverse impact	An impact that is considered to represent an adverse change from the baseline condition or introduces a new undesirable factor.

The appraisal of significance of an effect reported in the EAR takes account of the magnitude of change (the degree (including scale, duration and frequency), which an impact could make to a receptor and how sensitive a receptor is to that change, based on its vulnerability, recoverability and importance. The overall significance of an effect is determined using the matrix shown in Table 3. **Moderate** and **Major** effects are considered to be **significant** whereas **Minor** or **Negligible** effects are considered to be **not significant.**

Table 3: Significance Matrix

		Magnitude of Change			
		Negligible	**Low**	**Medium**	**High**
Receptor Sensitivity	**High**	Negligible/Minor	Moderate	Major	Major
	Medium	Negligible	Minor	Moderate	Major
	Low	Negligible	Negligible	Minor	Moderate
	Negligible	Negligible	Negligible	Negligible	Negligible/Minor

Identification of Mitigation Measures

Embedded mitigation measures (those incorporated into the design of the Marine Scheme as described in EAR Volume 2 Chapter 2: Project Description) and Project Specific Mitigation (identified through the appraisal process) has been incorporated into Volume 2 Chapter 17: Schedule of Mitigation. A standard approach to identifying mitigation requirements was used:

- **Avoid or Prevent**: In the first instance, mitigation seeks to avoid or prevent the adverse effect at source for example, by routeing the marine cables away from a sensitive receptor;

- **Reduce**: If the effect is unavoidable, mitigation measures seek to reduce the significance of the effect; and
- **Offset**: If the effect can neither be avoided nor reduced, mitigation seeks to offset the effect through the implementation of compensatory mitigation.

Results of Environmental Appraisal

The following sub-sections provide a summary of the results of each of the specialist appraisals undertaken (EAR Volume 2 Chapters 7 to 16). It is intended to highlight key sensitivities or receptors identified in undertaking baseline studies, outline the key mitigation measures and overall appraisal outcomes and significance of effects.

Physical Environment

The potential interaction of the Marine Scheme with the physical marine environment is appraised in EAR Volume 2 Chapter 7: Physical Environment. Information and data from a wide range of sources has been collated and used to inform the environmental baseline appraisal. A bespoke survey covering the entire Marine Installation Corridor has been undertaken which provides detailed information on the seabed geology, surficial sediments, bathymetry, water quality, sediment transport, bedforms (i.e., sandwaves) and other seabed features. The presence of boulders, wrecks and seabed protection, associated with existing cables or pipelines, have also been mapped.

Embedded mitigation measures have been incorporated into the design of the Marine Scheme to minimise potential interactions with the physical marine environment. An example of this is the cable will be trenched in the seabed and in areas where trenching is not possible, cable protection methods will be used. Another example, as explained in the landfall installation section of this NTS, is that HDD will be used to install the section of the cable from the landfall to MLWS. This means that no installation work will be required within the sensitive intertidal zone (the area where the ocean meets the land between MHWS and MLWS).

The impacts that the Marine Scheme could have on the physical environment during the Installation Phase include seabed disturbance, increases in suspended sediment concentrations (SSC), changes to seabed bathymetry and morphology, changes to physical environment features of interest and changes in water quality.

During the Operation and Maintenance Phase potential impacts include changes to seabed morphology, impact of cable exposure, water contamination, changes to the metocean regime and the effect of climate change and coastal erosion.

During Installation, Operation and Maintenance and Decommissioning phases, the residual (remaining) environmental effects appraised are reported as ranging between **Negligible** to **Minor**, which are considered to be **not significant**. No project specific mitigation measures or monitoring have been recommended as a result of the impact appraisal.

Benthic Ecology

EAR Volume 2 Chapter 8: Benthic Ecology of the EAR appraises the potential interaction of the Marine Scheme with benthic ecology. The appraisal establishes a baseline of subtidal[6] benthic ecology.

The subtidal benthic habitats identified along the Marine Installation Corridor were generally dominated by four broad scale sediment types: muddy sand, coarse sediment, rippled sand, and mixed sediments. A high diversity of benthic habitats was identified in the high energy, coastal areas of the Scottish landfall. The sediment characteristics of the Marine Installation Corridor comprised varying proportions of gravel, sand, and fine sediments with some areas of rock.

There are seven key designated sites for the protection of benthic features within 10 km of the Marine Scheme in both English and Scottish waters; one of which runs directly adjacent to the Marine

[6] The area below the level of low tide, that is always underwater.

Installation Corridor. These are Firth of Forth Banks Complex Marine Protected Area (MPA), Flamborough Head Special Area of Conservation (SAC), Southern Trench MPA, North East of Farnes Deep Marine Conservation Zone (MCZ), Farnes East MCZ, Holderness Offshore MCZ and the Holderness Inshore MCZ.

Embedded mitigation measures have been incorporated into the design of the Marine Scheme to minimise potential interactions with the benthic ecology. For example, the route will be optimised within the Marine Installation Corridor to avoid sensitive areas of the seabed. This will include minimising the footprint as much as possible.

The potential impacts of the Marine Scheme on benthic ecology during the Installation Phase are temporary physical disturbance to subtidal benthic habitats and species, temporary increase in SSC, sediment deposition, reductions in marine water quality and the accidental introduction of invasive non-native species.

During the Operation and Maintenance Phase potential impacts include effects on benthic habitats and species due to permanent loss of subtidal benthic habitats and species (in areas of rock placement), electromagnetic field (EMF) and thermal emissions and the effects of cable maintenance and repair.

No project specific mitigation measures or monitoring for benthic ecology have been recommended as a result of the impact appraisal.

The appraisal concluded with potential effects ranging from **Negligible** to **Minor,** which are considered to be **not significant**. No project specific mitigation measures or monitoring for benthic ecology have been recommended as a result of the impact appraisal.

Fish and Shellfish Ecology

EAR Volume 2 Chapter 9: Fish and Shellfish Ecology appraises the potential interaction of the Marine Scheme with fish and shellfish ecological receptors.

The appraisal establishes a baseline of species-specific information, spawning and nursery grounds, relevant designated sites and species, and species important for commercial fisheries. Fish and shellfish receptors taken forward for appraisal have been determined based upon potential activity / receptor interactions (source – pathway – receptor).

Those species considered to have greatest sensitivity to a particular impact have been appraised at species level, whereas those species with lower sensitivity have been assessed either at a high taxonomic (species classification) level and include elasmobranchs (comprising sharks, rays and skates) or by functional group and include demersal (fish living close to the sea bed such as sandeel and Atlantic cod), pelagic (fish living neither close to the sea floor or the shore, such as herring or mackerel), and migratory (such as European eel or Atlantic salmon).

Embedded mitigation measures have been incorporated into the design of the Marine Scheme to minimise potential interactions with fish and shellfish. An example of this is the selection of the Marine Installation Corridor to optimise the balance of environmental, technical, commercial and financial considerations, such as avoiding designated sites, known archaeological sites, recreational activities, key fishing grounds and third-party infrastructure as far as possible.

The potential impacts of the Marine Scheme on fish and shellfish ecology in the Installation Phase are temporary physical disturbance, temporary increase in SSC and sediment deposition, reduction in marine water quality, underwater sound effects, accidental leaks and spills from vessels and vessel collision risk.

During the Operation and Maintenance Phase potential impacts include permanent habitat loss (in areas of rock placement), effects on fish due to EMF and thermal emissions and effects due to maintenance and cable repair.

The appraisal concluded with residual effects ranging from **Negligible** to **Minor** and therefore are considered to be **not significant**. No project specific mitigation measures or monitoring have been recommended for fish and shellfish ecology as a result of the impact appraisal.

Marine Mammals

The potential interaction between the Marine Scheme and marine mammals is appraised in EAR Volume 2 Chapter 10: Marine Mammals.

The appraisal establishes a baseline of two groups of marine mammals occurring in UK waters, namely cetaceans (whales, dolphins, and porpoises) and pinnipeds (seals). A total of 28 cetacean species have been observed and two species of seal are present in UK waters; however, most are occasional visitors and within the Greater North Sea Ecoregion[7]. This baseline also considers the two seal species present in the UK, the harbour seal and grey seal.

The embedded mitigation measures for marine mammals include the mitigation measures recommended in the Joint Nature Conservation Committee (JNCC) guidelines (2017) for minimising the risk of injury in marine mammals will be adopted during the use of the sub-bottom profiler. Further mitigation measures will include a Marine Mammal Protection Plan (MMPP), as part of the Construction Environmental Management Plan (CEMP) developed for the Marine Scheme, following the Scottish Marine Wildlife Watching Code and the Basking Shark Code of Conduct.

The potential impacts of the Marine Scheme on marine mammals in the Installation Phase include changes in underwater sound and water quality and collision risk between vessels and marine mammals.

During the Operation and Maintenance Phase potential impacts include the effect of maintenance and cable repair.

The appraisal concluded with residual effects ranging from **Negligible** to **Minor** and therefore are considered to be **not significant**. No project specific mitigation measures or monitoring have been recommended for marine mammals as a result of the impact appraisal.

Ornithology

EAR Volume 2 Chapter 11: Ornithology appraises the potential interaction of the Marine Scheme and ornithological receptors.

The Marine Scheme passes directly through one site internationally designated for the protection of seabirds, the Buchan Ness to Collieston Coast Special Protection Area (SPA). The Marine Installation Corridor runs through the marine extension component of the SPA for approximately 2.3 km.

Three other sites internationally designated for the protection of seabirds are also located within the study area:

- Bullers of Buchan Coast Site of Special Scientific Interest (SSSI), which is a component site of the Buchan Ness to Collieston Coast SPA;
- Flamborough and Filey Coast Castle SPA; and
- Greater Wash SPA.

Despite the fact that a number of these sites are likely to fall outside of the Zone of Influence (ZoI) of project related impact pathways[8], due to the highly mobile nature of birds in the marine environment it is possible the qualifying features of these sites could still interact with the Marine Scheme.

The breeding season for seabirds varies between species but broadly extends between April and August, with the core breeding period between May and July. The only non-breeding waterbird species within the study area is the Red-throated diver.

Embedded mitigation measures have been incorporated into the design of the Marine Scheme to avoid and minimise effects on marine ornithological receptors. This includes a commitment that all vessels

[7] The Greater North Sea ecoregion includes the North Sea, English Channel, Skagerrak, and Kattegat
[8] It is widely understood and accepted that there are limited impact pathways for significant impacts associated with the installation of a submarine cable. This is largely due to the fact that vessel movements and installation activities present a very small source of potential disturbance against the context of a largely open and unrestricted marine environment, as well as the highly-mobile and transient nature of marine birds.

will adhere to the Scottish Marine Wildlife Watching Code and lighting onboard vessels will be kept to a minimum and directed towards the working areas to minimise disturbance.

The potential impacts of the Marine Scheme on ornithology during the Installation Phase include temporary physical disturbance and displacement of species associated with sound, visual effects and presence from vessel and construction activity, changes in prey availability and alteration of water quality due to unplanned releases, accidental leaks and spills from vessels and plant.

During the Operation and Maintenance Phase potential impacts include cable maintenance and repair and changes in prey availability.

No project specific mitigation measures or monitoring have been recommended as a result of the impact appraisal.

The appraisal concluded with residual effects ranging from **Negligible** to **Minor** and therefore are considered to be **not significant**. No project specific mitigation measures or monitoring have been recommended as a result of the impact appraisal.

Marine Archaeology

The potential interaction of the Marine Scheme with the known and potential marine archaeology and cultural heritage resource below MHWS is appraised in EAR Volume 2 Chapter 12: Marine Archaeology.

The appraisal establishes a baseline of seabed prehistory, seabed features (maritime and aviation), marine recorded loses and heritage assets. There are 33 palaeogeographic features of archaeological potential, two within Scottish territorial waters, 17 within Scottish offshore waters; 13 within English offshore waters and one within English territorial waters.

There are seabed features including 326 features of possible archaeological potential in Scottish territorial waters, 166 features in Scottish offshore waters, 353 features in English offshore waters and 208 features in English territorial waters. There are four charted wrecks in Scotland, and eight charted wrecks within England. There are no known aircraft crash sites but a recorded number of losses, and potential for aircraft, or aircraft related debris to exist on the seafloor.

Embedded mitigation measures have been incorporated into the design of the Marine Scheme to avoid and minimise effects on marine archaeology and cultural heritage resources. For example, a Written Scheme of Investigation and for the protection of known archaeological assets is avoidance, achieved through the implementation and monitoring of Archaeological Exclusion Zones.

The potential impacts of the Marine Scheme on marine archaeology during the Installation and Operation and Maintenance Phases include direct and indirect damage to known and unknown assets. Potentially significant effects will be recorded for damage to known and unknown assets during both the Installation and Operation and Maintenance Phases. Project specific mitigation measures will be secured through a Written Scheme of Investigation (WSI) including Archaeological Exclusion Zones (AEZ) and a Protocol for Archaeological Discoveries (PAD), around known features are recommended, requiring agreement with regulators following appointment of the Contractor post-consent.

The marine archaeology appraisal concluded with all residual effects appraised as **Negligible**, which is **not significant**.

Shipping and Navigation

EAR Volume 2 Chapter 13: Shipping and Navigation appraises the potential interaction of the Marine Scheme with shipping and navigation in the format of a Navigational Risk Assessment.

The appraisal establishes a baseline of key navigational features, emergency response, maritime incidences and marine traffic.

Embedded mitigation measures have been incorporated into the design of the Marine Scheme to avoid and minimise effects on shipping and navigation. For example, a Notice to Mariners (including Kingfishers) will be issued and Automatic Identification Service Broadcast will be used at all times to mitigate against the potential for vessel-to-vessel collision.

The potential risks of the Marine Scheme to shipping and navigation during the Installation and Operation and Maintenance Phases include vessel-to-vessel collision, deviation from established vessel routes and areas, interaction with vessel anchors and anchoring activity, interaction with fishing gear. The potential risks from reduction in under keel clearance and interference with marine navigational equipment were also considered during the Operation and Maintenance Phase.

All risks during the Installation and Operation and Maintenance Phases, with the exception of deviation from established vessel routes and reduction in under keel clearance during the Operation and Maintenance Phase, were determined to be tolerable and additional project specific mitigation measures were recommended. Project specific mitigation measures recommended included High Traffic Density Specific procedures, liaison with Peterhead Port Authority, minimising the duration of exposed or unprotected cables and dissemination of relevant post-lay survey information to relevant organisations and stakeholders.

Following the implementation of the project specific mitigation measures, the residual impacts, from all phases of the Marine Scheme, can be considered **ALARP** ('as low as reasonably possible'), which is considered to be **not significant**.

Commercial Fisheries

EAR Volume 2 Chapter 14: Commercial Fisheries appraises the potential interaction of the Marine Scheme with commercial fisheries.

The appraisal establishes a baseline of principal fishing activities including the; lobster and crab fishery, scallop dredge fishery, *Nephrops* demersal trawl fishery, squid and whitefish demersal trawl fishery, and the herring pelagic trawl fishery.

Embedded mitigation measures have been incorporated into the design of the Marine Scheme to avoid and minimise effects on commercial fisheries. For example, avoiding key fishing grounds insofar as practicable, the appointment of a Fisheries Liaison Officer for the Installation Phase and a Fisheries Liaison and Co-existence Plan will be developed and agreed with relevant stakeholders and incorporated into the CEMP prepared by the Contractor once appointed.

During the Installation Phase of the Marine Scheme, the potential impacts include temporary loss or restricted access to fishing grounds, displacement of fishing activity into other areas, interference with fishing activities, snagging risk (loss or damage to fishing gear) and impacts on target species for commercial fisheries. Operation and Maintenance Phase potential impacts considered included the long-term loss of grounds or restricted access to fishing grounds, displacement of fishing activity into other areas and snagging risks. During the Decommissioning Phase of the Marine Scheme, the potential impacts are considered to be the same as the Installation Phase, but additionally, the long-term impact on fishing grounds are considered.

Potential impacts were reported to be not significant with the exception of temporary loss or restricted access to fishing grounds and displacement of fishing activity into other areas for potters/creelers during the Installation Phase. Project specific mitigation measures recommended included appropriate mitigation for affected vessels following an evidence-based approach, in line with available guidance, via the establishment of co-operation agreements, where removal or relocation of static gear may be required during the Installation Phase.

The commercial fisheries appraisal concluded with all residual effects appraised as **Negligible** to **Minor**, which is **not significant**.

Other Sea Users

EAR Volume 2 Chapter 15: Other Sea Users appraises the potential interaction of the Marine Scheme with other sea users.

The appraisal establishes a baseline of marine recreational activities (including recreational boating and fishing, scuba diving, kayaking, paddleboarding and canoeing, surfing, windsurfing and kite surfing and open water swimming), oil and gas operations, offshore wind farms, cables and pipelines, dredging and disposal sites, military practice and exercise areas (PEXA), aquaculture and other developments.

Embedded mitigation measures have been built into the Marine Scheme to avoid and / or minimise impacts to other sea users. This includes the establishment of a temporary 500 m Recommended Clearance Zone around all vessels associated with the works to prevent interactions with other vessels. Furthermore, Proximity and Crossing Agreements will be developed with the owners of subsea assets (including cables and pipelines) which are located in the immediate vicinity of or are crossed by the Marine Scheme.

The potential impacts of the Marine Scheme on other sea users are disruption to marine recreational users, disruption to vessel routeing and access to other sea user working areas, and the risk of damage to or interference with a third-party cable or pipeline assets.

The other sea users appraisal concluded that all residual effects would be **Negligible** to **Minor** and therefore are considered to be **not significant**. No project specific mitigation measures or monitoring for other sea users have been recommended as a result of the appraisal.

Cumulative and In-Combination Effects

EAR Volume 2 Chapter 16: Cumulative and In-Combination Effects appraises the potential interaction of the Marine Scheme with other developments.

The appraisal has been based on the best available data from other plans, projects, marine activities, and associated information that is currently in the public domain or has been provided to the Marine Scheme. A long list of other developments within a study area of 20 km of the Marine Scheme was established and each development screened for its potential interaction with the Marine Scheme.

The shortlisted developments included in the cumulative appraisal comprise:

- Green Volt Floating Offshore Wind Farm Export Cable;
- ScotWind Offshore Wind Proposed Site 1 (ScotWind Plan Option E1);
- ScotWind Offshore Wind Proposed Site 6 (ScotWind Plan Option E3);
- Potential for the implementation of closures to commercial fishing within the Firth of Forth Banks Complex Marine Protected Area;
- Seagreen 1A Bravo Offshore Wind Farm;
- Berwick Bank Offshore Wind Farm;
- Dogger Bank C Export Cable / Sofia Export Cable;
- Hornsea Project Four (HOW04) Offshore Wind Site Export Cable; and
- Northern Endurance Partnership CO_2 Pipelines (Teesside and Humber).

Each shortlisted development was screened for potential cumulative effects for each technical chapter of this EAR. These sections were subsequently summarised against each development, detailed their potential for interaction, potential impact pathways, potential for cumulative effect and where appropriate, proposed mitigation. The cumulative effects appraisal concluded that all residual effects range between **Negligible** to **Minor** and therefore are considered to be **not significant**.

In-combination effects are where receptors could be affected by more than one environmental impact. Where a receptor has been identified as only experiencing one effect or where only one topic has identified effects on that receptor, there is no potential for in-combination effects. The receptor groups within this EAR do not interact between chapters, therefore receptors have been wholly assessed within their respective topic chapter and therefore, in-combination effects have not been identified by this appraisal.

Summary and Conclusions

The Project is a major reinforcement of the UK electricity transmission system which will provide additional transmission capacity from north and south across transmission network boundaries, ensuring that green energy is transported from where it is produced to where it is needed economically and efficiently.

In the medium to the long-term there are significant increases in north to south power flows across a diverse and credible range of scenarios including a tripling of wind generation connected across the Scottish networks by 2030, driving higher north-to-south power transfers. New reinforcements are therefore required to facilitate these power flows through the North of England. The Project is one of those reinforcements.

SHE Transmission and NGET are committed to ensuring that adverse environmental effects associated with the development are minimised and beneficial effects are maximised. As the project moves forward, SHE Transmission and NGET will continue to ensure that the design, construction and installation techniques utilised take account of environmental factors. It is recognised that ongoing communication with our stakeholders is key to the project's successful implementation.

Where significant effects were identified by this appraisal project specific mitigation measures were recommended as detailed in full in the EAR. All residual environmental effects identified as **Negligible** or **Minor**, and therefore are considered to be **not significant**.

Next Steps

The EAR will be considered as part of the decision to grant or refuse the marine licences for the Installation and Operation and Maintenance of the Marine Scheme. As described within this NTS, one of the key aims of the EAR is to ensure that the potential environmental effects of the Marine Scheme are known and understood so that these may be considered before deciding whether or not to proceed with the marine licence determinations.

Contact Us

This EAR forms part of the Marine Licence application to the MMO and MS-LOT and will be advertised in accordance with MMO and MS-LOT required procedures.

Full digital copies of this EAR are available through:

- MS-LOT Marine License Details: All applications | Marine Scotland Information
- MMO Marine Case Management System: https://marinelicensing.marinemanagement.org.uk/mmofox5/fox/live/MMO_LOGIN/login
- Project websites:

  SHE Transmission: https://www.ssen-transmission.co.uk/projects/eastern-hvdc-link/

  NGET: https://www.nationalgrid.com/segl2
- Projects communication team at:

  SHE Tranmission:

  Email: Dav.S.Lynch@sse.com

  Tel: 07918 404 443

  NGET:

  Email: info@segl2.nationalgrid.com

  Tel: 0808 196 8407