



MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Outline Vessel Traffic Management Plan



September 2024
Rev: F01

MOR001-FLO-CON-ENV-PLN-0067
MRCNS-J3303-RPS-10086

PINS Reference: EN020028
APFP Regulations: 5(2)(q)
Document reference: J21

Document status					
Version	Purpose of document	Approved by	Date	Approved by	Date
F01	Application	AS	September 2024	IM	September 2024

The report has been prepared for the exclusive use and benefit of the Applicants and solely for the purpose for which it is provided. Unless otherwise agreed in writing by RPS Group Plc, any of its subsidiaries, or a related entity (collectively 'RPS') no part of this report should be reproduced, distributed or communicated to any third party. RPS does not accept any liability if this report is used for an alternative purpose from which it is intended, nor to any third party in respect of this report. The report does not account for any changes relating to the subject matter of the report, or any legislative or regulatory changes that have occurred since the report was produced and that may affect the report.

The report has been prepared using the information provided to RPS by its client, or others on behalf of its client. To the fullest extent permitted by law, RPS shall not be liable for any loss or damage suffered by the client arising from fraud, misrepresentation, withholding of information material relevant to the report or required by RPS, or other default relating to such information, whether on the client's part or that of the other information sources, unless such fraud, misrepresentation, withholding or such other default is evident to RPS without further enquiry. It is expressly stated that no independent verification of any documents or information supplied by the client or others on behalf of the client has been made. The report shall be used for general information only.

Prepared by:

RPS

Prepared for:

**Morgan Offshore Wind Limited,
Morecambe Offshore Windfarm Ltd**

Contents

1	OUTLINE VESSEL TRAFFIC MANAGEMENT PLAN	1
1.1	Background	1
1.1.1	Introduction	1
1.1.2	Project overview.....	1
1.1.3	Purpose of the Outline Vessel Traffic Management Plan.....	2
1.1.4	Structure of this document.....	3
1.2	Implementation.....	3
1.3	Overview of the Transmission Assets	4
1.3.1	Maximum design scenario	4
1.3.2	Cable route	9
1.4	Location of ports.....	9
1.4.2	Construction port	9
1.4.3	Operation and maintenance port	10
1.5	Management and co-ordination of vessels	10
1.5.1	Marine co-ordinator.....	10
1.5.2	Construction phase	11
1.5.3	Operation and maintenance phase	14
1.5.4	Reporting protocol	17
1.5.5	Interface with Generation Assets' VTMPs	17
1.6	Promulgation of information	17
1.6.2	Notices to mariners	17
1.7	References	19

Tables

Table 1.1:	MDS - offshore export cables.....	5
Table 1.2:	MDS - vessel requirements during construction phase	7
Table 1.3:	MDS - vessel requirements during operation and maintenance phase	8

Glossary

Term	Meaning
Aids to Navigation	Any sort of signal or marker to support vessel navigation including buoys, beacons or lights.
Applicants	Morgan Offshore Wind Limited (Morgan OWL) and Morecambe Offshore Windfarm Ltd (Morecambe OWL).
Anchorage	A designated area where ships lower their anchors to remain in position.
Automatic Identification System	An automatic tracking system carried by ships that broadcasts their position and identity to other nearby vessels.
Generation Assets	The generation assets associated with the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm include the offshore wind turbines, inter-array cables, offshore substation platforms and platform link (interconnector) cables to connect offshore substations.
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).
Marine Licence	The Marine and Coastal Access Act 2009 requires a marine licence to be obtained for licensable marine activities. Section 149A of the Planning Act 2008 allows an applicant for to apply for 'deemed marine licences' in English waters as part of the development consent process.
Master	The Master is the highest seafarer rank. A Master has ultimate responsibility for everything that happens on his or her vessel, including the security of the ship, as well as the safety of the crew and cargo, and any passengers, both when in port and when at sea.
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.
Metocean	Metocean concerns understanding meteorological and oceanographic conditions in offshore coastal engineering or renewable energy projects.
Morecambe Offshore Windfarm: Generation Assets	The offshore generation assets and associated activities for the Morecambe Offshore Windfarm.
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.

Term	Meaning
Morgan Offshore Wind Project: Generation Assets	The offshore generation assets and associated activities for the Morgan Offshore Wind Project.
Morgan OWL	Morgan Offshore Wind Limited is a joint venture between bp Alternative Energy investments Ltd. and Energie Baden-Württemberg AG (EnBW).
Notice to Mariners	A notice to mariners advises mariners of important matters affecting navigational safety, including new hydrographic information, changes in channels and aids to navigation, and other important data.
Offshore Export Cables	The cables which would bring electricity from the Generation Assets to the landfall.
Offshore Order Limits	See Transmission Assets Order Limits: Offshore (below).
Passage Plan	A detailed description of a vessel's voyage from start to finish, including the route and hazards likely to be encountered along the way.
Port or Harbour	A maritime facility comprising of one or more wharves or loading areas where ships load and discharge cargo or passengers.
Transmission Assets	See Morgan and Morecambe Offshore Wind Farms: Transmission Assets (above).
Transmission Assets Order Limits: Offshore	The area within which all components of the Transmission Assets seaward of Mean Low Water Springs will be located, including areas required on a temporary basis during construction and/or decommissioning. Also referred to in this report as the Offshore Order Limits, for ease of reading.

Acronyms

Acronym	Meaning
AIS	Automatic Identification System
COLREGS	Convention on International Regulations for Preventing Collisions at Sea
CTV	Crew Transfer Vessels
DCO	Development Consent Order
DML	Deemed marine licence
HMCG	His Majesty's Coast Guard
IMO	International Maritime Organization
KIS-ORCA	Kingfisher Information Service – Offshore Renewable & Cable Awareness
LNtM	Local Notice to Mariners
MCA	Maritime and Coastguard Agency
MC	Marine Coordinator
MDS	Maximum Design Scenario

Acronym	Meaning
MGN	Marine Guidance Note
NtM	Notice to Mariners
OUTLINE VTMP	Outline Vessel Traffic Management Plan
RAM	(Vessels) Restricted in their Ability to Manoeuvre
SIMOPS	Simultaneous Operations
SOLAS	International Convention for Safety of Life at Sea
UKHO	United Kingdom Hydrographic Office
VHF	Very High Frequency
VTMP	Vessel Traffic Management Plan

Units

Unit	Description
%	Percentage
km	Kilometres

1 Outline vessel traffic management plan

1.1 Background

1.1.1 Introduction

1.1.1.1 This document forms the Outline Vessel Traffic Management Plan (VTMP) prepared for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (referred to hereafter as ‘the Transmission Assets’). The Outline VTMP sets out the marine procedures and management of vessel activities during the construction and operation and maintenance phase of 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.

1.1.2.6 This Outline VTMP has been developed for the offshore elements of the Transmission Assets, seawards of Mean Low Water Springs (MLWS). The offshore elements of Transmission Assets relevant to this plan are:

- Offshore export cables.

1.1.2.7 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).

1.1.3 Purpose of the Outline Vessel Traffic Management Plan

1.1.3.1 The objective of VTMPs are to support safe and efficient vessel movements and will include:

- vessel routing to and from construction areas and ports;
- vessel standards and a code of conduct for vessel operators; and
- measures to minimise, as far as reasonably practicable, encounters with marine mammals, basking sharks and rafting birds.

1.1.3.2 There is no formal guidance on the development and content that should be included within a VTMP. In the absence of formal guidance, this Outline VTMP is based on the International Convention for Safety of Life at Sea (SOLAS) (International Maritime Organization (IMO), 1974) chapter V (Annex 24 and Annex 25). SOLAS Chapter V focuses on reducing the risk of accidents occurring at sea by focussing on measures which improve safety of navigation and thereby provides legislative guidance for Passage Planning in the shipping sector. Marine Guidance Note (MGN) 610 (M+F) clarifies the application of SOLAS Chapter V in UK law.

1.1.3.3 This Outline VTMP has been drafted based on Volume 2, Annex 7.1: Navigation Risk Assessment of the Environmental Statement (document reference F2.7.1).

1.1.3.4 This Outline VTMP references the following documents:

- Outline Cable Burial Risk Assessment (document reference J14);
- Outline Offshore Cable Specification and Installation Plan (document reference J15);
- Outline Marine Mammal Mitigation Protocol (document reference J18);
- Outline Offshore Operation and Maintenance Plan (document reference J19); and
- Measures to minimise disturbance to marine mammals and rafting birds from vessels (document reference J16).

1.1.3.5 It is anticipated that other documents to be developed post-consent will be used to inform and develop detailed VTMPs. This could include the following:

- Emergency Response Cooperation Plan (ERCoP));
- Marine Pollution Contingency Plan;
- Offshore Construction Method Statement;
- Offshore Environmental Management Plan;
- Morgan Offshore Wind Project: Generation Assets VTMP; and
- Morecambe Offshore Windfarm: Generation Assets VTMP.

1.1.3.6 Consultation will be undertaken with the following stakeholders and groups of stakeholders during the development of the detailed VTMPs. This could include, but is not limited to, the following.

- Maritime and Coastguard Agency (MCA) to support its responsibility for enforcing merchant shipping regulations in respect of the safety of vessels, safe navigation and operation.
- Trinity House to support its statutory duty as General Lighthouse Authority to deliver reliable, efficient and cost-effective aids to navigation service for the benefit and safety of all mariners.
- Existing users of the relevant sea area to ensure that the detailed VTMPs address potential and actual consultee vessel interactions with project vessels using relevant sea area.
- Relevant port/harbour authorities to ensure that the detailed VTMPs comply with their requirements if vessels are operating within their statutory harbour limits.
- Relevant contractors working on the Transmission Assets construction, operation and maintenance, to ensure the detailed VTMPs capture and allows for their relevant operations and vessels.

1.1.4 Structure of this document

1.1.4.1 This document is set out as follows.

- **Section 1.1** introduces the document including background on its purpose and basis, scope, key consultees involved during its development, relevant related documents and the basis for updates.
- **Section 1.2** provides an overview of the Transmission Assets, covering key aspects relevant to this Outline VTMP.
- **Section 1.4** gives information on the construction, operation and maintenance ports selected by the Transmission Assets.
- **Section 1.5** covers the management and coordination of vessels during the construction, operation and maintenance of the Transmission Assets through the use of the Marine Coordinator.
- **Section 1.6** describes how information on the activities within the detailed VTMPs will be communicated to relevant stakeholders.

1.2 Implementation

1.2.1.1 Following the granting of consent for the Transmission Assets, detailed VTMPs will be prepared for each project on behalf of Morgan OWL and Morecambe OWL, prior to commencement of the licensed activities and will follow the principles established in this Outline VTMP. The detailed VTMPs will require approval by the Marine Management Organisation following consultation with relevant stakeholders. The Applicants and all appointed contractors will be responsible for the implementation of the detailed VTMPs.

1.2.1.2 The Applicants have committed to implementation of VTMPs via the following commitment, CoT69 (see Volume 1, Annex 5.3: Commitments register, document reference F1.5.3), which is secured by inclusion of condition 18(1)(h) of the draft Development Consent Order (DCO) Schedules 14 and 15 (document reference C1). Below sets out the condition wording for condition 18(1)(h):

18.—(1) The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO, in consultation with Trinity House, the MCA and UKHO as appropriate —

(h) a vessel traffic management plan (in accordance with the outline vessel traffic management plan).

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 offshore works (seaward of Mean Low Water Springs), this approach will be governed by the inclusion of condition 12 of Schedules 14 and 15 of the draft DCO, which requires a written scheme detailing the stages of construction for Project A or Project B to be submitted for approval by the Marine Management Organisation prior to the commencement of the licensed activities.

1.3 Overview of the Transmission Assets

1.3.1 Maximum design scenario

1.3.1.1 Located in the east Irish Sea, the Transmission Assets offshore infrastructure comprises offshore export cables and cable protection only.

1.3.1.2 The following sections provide a background to the Transmission Assets infrastructure and an overview on the vessels involved in each phase of the Transmission Assets. The information is currently based on the Maximum Design Scenario (MDS) for the Transmission Assets shipping and navigation assessment (Volume 2, Chapter 7) of the Environmental Statement (document reference: F2.7.1) and will be updated once details of the Transmission Assets have been finalised post-consent.

1.3.1.3 The MDS includes the following infrastructure and construction components of relevance to vessel traffic management within **Table 1.1**, shown by project and total MDS.

Table 1.1: MDS - offshore export cables

Parameter	Maximum design parameter		
	Morgan Offshore Wind Project	Morecambe Offshore Windfarm	Maximum design parameter
Maximum number of offshore export cables	4	2	6
HVAC/HVDC	HVAC		
Maximum length per cable (km)	100	42	N/A
Maximum total length of offshore export cables (km)	400	84	484
Burial techniques	Trenching, plough, jetting, mechanical cutting		
Maximum burial depth (m)	3	3	3
Minimum burial depth (m)	0.5	0.5	0.5
Offshore export cables, cable protection due to ground conditions			
Cable protection type (ground conditions)	Rock dump, rock armour, mattresses, articulated pipe		
Maximum height of cable protection (m)	2	2	2
Maximum width of cable protection per cable (m)	10	10	10
Maximum offshore export cable corridor with cable protection coverage (%), whole route.	10% (40 km)	10% (8.4 km)	10% (48.4 km)
Offshore export cables, cable protection due to asset crossings			
Cable crossing protection type	Rock dump, rock armour, mattresses, articulated pipe		
Maximum number of individual cable crossings, whole route	45	6	51
Maximum length of crossings (m)	150	150	150
Maximum width of crossings (m), per cable	30	30	30
Maximum height of crossing (m)	2.8	2.8	2.8

Construction phase

1.3.1.4 Details will be updated within the Final VTMPs; however, the MDS includes the following.

- Up to 18 months construction duration for the offshore export cables (MDS is concurrent construction as represents the most number of vessels working concurrently).
- The maximum number of vessels and vessel movements (return trips) are detailed in **Table 1.2.**

Operation and maintenance phase

1.3.1.5 Details will be updated for the Final VTMPs; however, the MDS includes the following.

- Operational life of 35 years for the Morgan Offshore Wind Project: Transmission Assets.
- Operational life of 35 years for the Morecambe Offshore Windfarm: Transmission Assets.
- The maximum number of vessels and vessel movements (return trips) are detailed in **Table 1.3**, shown by as MDS by project and total.

Table 1.2: MDS - vessel requirements during construction phase

Vessel requirements	Morgan Offshore Wind Project		Morecambe Offshore Windfarm		Maximum design parameter	
	Maximum number of vessels	Maximum return trips per year	Maximum number of vessels	Maximum return trips per year	Maximum number of vessels	Maximum return trips per year
Cable lay and support vessels	6	40	4	8	10	48
Tug/anchor handlers	2	8	1	4	4	12
Guard vessels	1	18	1	12	2	30
Survey vessels	2	4	1	2	3	6
Seabed preparation vessels	4	16	2	4	6	20
Crew transfer vessels	2	120	1	28	3	148
Cable protection installation vessels	2	20	1	2	3	22
Total	19	220	11	58	31	286

Table 1.3: MDS - vessel requirements during operation and maintenance phase

Vessel requirements	Morgan Offshore Wind Project		Morecambe Offshore Windfarm		Maximum design parameter	
	Maximum number of vessels	Maximum return trips per year	Maximum number of vessels	Maximum return trips per year	Maximum number of vessels	Maximum return trips per year
Crew transfer vehicles/work boats	2	28	2	14	4	42
Jack-up vessels	1	2	1	1	2	3
Cable repair vessels	1	2	1	2	2	4
Other vessels	2	16	1	4	3	20
Excavators or backhoe dredgers	2	4	1	4	3	8
Total	8	52	6	25	14	77

Decommissioning phase

- 1.3.1.6 The operational life of the Morecambe Offshore Windfarm is 35 years, and the Morgan Offshore Wind Project is also 35 years, therefore Decommissioning VTMPs will be updated and / or developed prior to decommission activities taking place. An Offshore Decommissioning Programme(s) will be developed taking into consideration the latest relevant best practice, technological changes, legislation and policy at the time (DCO Schedule 2A Requirement 21 (Offshore decommissioning) and DCO Schedule 2B Requirement 21 (Offshore decommissioning)).
- 1.3.1.7 The decommissioning sequence is anticipated to be the reverse of the construction sequence and involve similar types and numbers of vessels and equipment.
- 1.3.1.8 The duration of the decommissioning programme is anticipated to be the same as for construction, and thus, up to 18 months for the decommissioning of the offshore export cables.

1.3.2 Cable route

- 1.3.2.1 Once the export cable route has been formalised, a figure will be presented within the Final VTMPs prepared by each Applicant showing the route details (with further details provided in each Applicant's final offshore cable specification and installation plan (outline plan provided with application, document reference: J15)).

1.4 Location of ports

- 1.4.1.1 Information about ports, relevant to the Final VTMPs and the existing provisions in place for management of marine traffic in each location, will be covered in this section once further details of the Transmission Assets, including selection of ports, is finalised post-consent.

1.4.2 Construction port

- 1.4.2.1 Detail of the ports that will be used as a base during the construction phase will be included in this section. This will include information on the relevant harbour authority and the existing provisions in place for management of marine traffic such as:
- location of the port/s;
 - relevant harbour authority;
 - activities undertaken at and from the port;
 - associated vessels; and
 - port requirements including reporting, local traffic management, pilotage, etc.

1.4.3 Operation and maintenance port

1.4.3.1 Detail of the ports that will be used as a base during the operation and maintenance phase will be included in this section. This will include information on the Harbour Authority and the existing provisions in place for management of marine traffic by the relevant Harbour Authority such as:

- location of port/s;
- location of Marine Coordinator (MC);
- relevant harbour authority;
- location of operation and maintenance berths;
- activities undertaken from each location;
- associated vessels; and
- port requirements including reporting, local traffic management, pilotage, etc.

1.5 Management and co-ordination of vessels

1.5.1 Marine co-ordinator

1.5.1.1 The MC acts as a central point of contact for management of Transmission Assets vessels. The MC has the following responsibilities:

- coordination of project and contractor vessel movements, particularly regarding passage planning and communications;
- monitoring of vessel movements enroute to and at the Transmission Assets;
- provision of localised weather information for project vessels to assist in planning their work and in identifying appropriate anchorages in the event of forecast weather above the vessel operational limits for their planned activities;
- issue of Notices to Mariners (NtM) on behalf of the Transmission Assets and contractors;
- implementation and management of Emergency Response Cooperation Plan and Marine Pollution Contingency Plan during an emergency situation;
- coordinate monitoring and maintenance as required in the Aids to Navigation Management Plan; and
- promulgate information of movements to relevant stakeholders.

1.5.1.2 During the operation and maintenance phase, the MC role may not be a standalone position. It is likely to be incorporated with other tasks and therefore covered by either a remote operations coordination centre operator or a 3rd party on behalf of each Applicant.

1.5.1.3 This section of the Final VTMPs will provide further details of the roles and responsibilities of the MC once the details of the Transmission Assets are developed post-consent. The relevant contact details will also be provided.

1.5.2 Construction phase

1.5.2.1 This section of the Final VTMPs will detail the vessel traffic management and reporting measures to be employed during the construction phase.

1.5.2.2 Standard measures include:

- reporting responsibilities for the MC;
- advance planning, scheduling and coordination of vessel operations to de-conflict and minimise simultaneous operation (SIMOPS);
- sharing of vessel schedules and activities with relevant stakeholders; and
- collation and dissemination of incident and accident reports.

Numbers, types and specification of vessels

1.5.2.3 This section of the Final VTMPs will provide details of the vessels which will be used during construction.

1.5.2.4 As noted in **section 1.2, Table 1.2** and **Table 1.3**, the MDS included the following estimates for vessel numbers and types in the construction phase (concurrent construction scenario, as per Volume 1, Chapter 3: Project description of the ES (document reference: F1.3)).

- Up to a total of 30 construction vessels on site at any one time (including tug/anchor handlers, cable lay vessels, guard vessels, survey vessels, seabed preparation vessels, Crew Transfer Vessels (CTVs) and cable protection installation vessels).
- Up to 286 construction vessel movements (return trips) per year during construction (including, tug/anchor handlers, cable lay vessels, guard vessels, survey vessels, seabed preparation vessels, CTVs and cable protection installation vessels).

1.5.2.5 Details will be updated following further development of the Transmission Assets post-consent.

Vessels restricted in ability to manoeuvre

1.5.2.6 This section of the Final VTMPs provides the context for vessels Restricted in their Ability to Manoeuvre (RAM) and specific project measures.

1.5.2.7 Vessels will be RAM during cable installation works. Vessels are classed as RAM as a result of the nature of the work they are undertaking and are restricted in taking action to avoid other vessels. All RAM vessels involved in construction activities will comply with the

Convention on International Regulations for Preventing Collisions at Sea (COLREGs) (IMO, 1972).

- 1.5.2.8 RAM vessels will display appropriate navigation lights and day shapes to indicate their restrictions. They will transmit safety warnings on Very High Frequency (VHF) to inform other vessels of their actions using the 'Sécurité' message¹ if the messages contain important information relating to navigation.
- 1.5.2.9 Communications between RAM vessels and the MC will be ongoing throughout the operations. RAM vessels will show current navigational status at all times to ensure other vessels equipped with an Automatic Identification System (AIS) can identify that they are RAM.
- 1.5.2.10 RAM activities will also be promulgated through the notification procedure and, following internal risk assessment, guard vessels may be employed.

Passage planning

- 1.5.2.11 Passage planning will be required on routes for construction vessels.
- 1.5.2.12 Passage planning will be undertaken as per SOLAS (IMO, 1974). The Master of the vessels is responsible for maintaining and updating the passage plan as necessary. Information which may require an update to the passage plan includes:
 - prevailing weather, tidal, or sea state conditions;
 - environmental limits for operations;
 - new navigational hazards notified through NtM or other such sources as detailed in **Section 1.6**;
 - instructions from the MC or other responsible persons in charge of coordinating and managing Transmission Assets vessel traffic; and
 - any other reason the Master of a vessel may deem relevant for the purpose of ensuring the safety of theirs or another vessel.

Indicative transit routes

- 1.5.2.13 Indicative routes will be provided to construction vessels to minimise interactions with other vessels in the region.
- 1.5.2.14 Once the construction ports have been determined, the routes to the work site will be identified and presented in this section. Areas where Transmission Asset vessels will cross other routes will be identified along with typical entry, departure points from the work site and any specific information to be taken into account for passage planning. Vessel crew will also undertake briefings on requirements from other

¹ Sécurité is a procedure word used in the maritime radio service that warns the crew that the following message is important safety information. Sécurité warnings are normally transmitted via VHF on a dedicated channel.

plans such as to minimise impacts on marine mammals, rafting seabirds, etc.

1.5.2.15 Vessels may deviate from these indicative routes for a variety of reasons at the discretion of the vessel's Master, for example due to:

- compliance with COLREGS (IMO, 1972) or SOLAS (IMO, 1974);
- prevailing weather, tidal or sea state conditions;
- navigational hazards as indicated on charts, or notified through Notices to Mariners, or other such sources; and
- such other reasons as the Master of the vessel may deem relevant for the purposes of ensuring the safety of their vessel or another vessel.

Anchoring

1.5.2.16 This section of the Final VTMPs will provide context on vessels anchoring within the Transmission Assets Order Limits: Offshore (hereafter referred to as the Offshore Order Limits).

1.5.2.17 Anchoring is at the discretion of the vessel Master but can be in conjunction with the information provided by the MC. When determining the appropriate location to anchor consideration is given to:

- available water depth;
- potential seabed obstructions;
- seabed type and charted hazards including cables/pipelines;
- weather and tidal information including current and predicted weather;
- avoidance of prohibited anchorage areas;
- consideration of other anchored vessels;
- avoidance of known areas of other marine activity such as oil and gas support, fishing or recreational boating;
- avoidance of installed foundations and cables;
- avoidance of main commercial routes;
- pilot boarding area or other navigational features, such as spoil grounds or subsea cables; and
- available swinging area.

1.5.2.18 Construction vessels requiring anchorage within the Offshore Order Limits will require permission to do so from the MC.

Environmental limits

1.5.2.19 This section of the Final VTMPs will provide details of what environmental factors will be considered in vessel operations and what limits will be adhered to.

1.5.2.20 These may include limitations on (for example):

- metocean conditions for particular vessels or operations to maintain safety as per pre-approved procedures;
- fuel types or vessel speeds to meet emissions requirements; or
- schedules or hours of operation to meet noise/light emissions requirements.

1.5.2.21 These will depend on the vessels selected, their schedules and the activities in which they are engaged.

1.5.3 Operation and maintenance phase

1.5.3.1 This section of the Final VTMPs will provide a summary of the management and reporting measures that will be employed during the operation and maintenance phase.

1.5.3.2 Standard measures include, for example:

- reporting responsibilities noted for the MC;
- advance planning, scheduling and coordination of vessel operations to de-conflict and minimise SIMOPS involving multiple vessels;
- sharing of vessel schedules and activities with relevant stakeholders; or
- collation and dissemination of incident and accident reports.

Numbers, types and specifications of vessels

1.5.3.3 This section of the Final VTMPs will provide details of the vessels which will be used during operation and maintenance.

1.5.3.4 As noted in **section 1.2**, **Table 1.2** and **Table 1.3**, the MDS included the following estimates for vessel numbers and types in the operation and maintenance phase.

- Up to a total of 14 operation and maintenance vessels on site at any one time (assumes concurrent maintenance activities and includes CTVs/workboats, cable repair vessels, service operation vessels or similar and excavators/backhoe dredger).
- Up to 77 operation and maintenance vessel movements (return trips) per year (including CTVs/workboats, cable repair vessels, service operation vessels or similar and excavators/backhoe dredger).

1.5.3.5 Details will be updated following further development of the Transmission Assets post-consent.

Vessels restricted in ability to manoeuvre

- 1.5.3.6 This section of the Final VTMPs will provide the context for vessels RAM and specific project measures.
- 1.5.3.7 Vessels will be RAM during cable maintenance and repair works. All RAM vessels involved in operation and maintenance activities will comply with the COLREGS (IMO, 1972).
- 1.5.3.8 RAM vessels will display appropriate navigation lights and day shapes to indicate their restrictions. They will transmit safety warnings on VHF to inform other vessels of their actions using the ‘Sécurité’ message² if the messages contain important information relating to navigation.
- 1.5.3.9 Communications between RAM vessels and the MC will be ongoing throughout the operation. RAM vessels will show current navigational status at all times to ensure other vessels equipped with an AIS can identify that they are RAM.
- 1.5.3.10 RAM activities will also be promulgated through the notification procedure and, following internal risk assessment, guard vessels may be employed.

Passage planning

- 1.5.3.11 Passage planning will be required on routes for operation and maintenance vessels.
- 1.5.3.12 Passage planning will be undertaken as per SOLAS (IMO, 1974). The Master of the vessels is responsible for maintaining the passage plan and updating as necessary. Information which may require an update to the passage plan includes:
- prevailing weather, tidal, or sea state conditions;
 - environmental limits for operations;
 - new navigational hazards notified through NtM or other such sources as detailed in **Section 1.6**;
 - instructions from the MC or other responsible persons in charge of coordinating and managing project vessel traffic; and
 - any other reason the Master of a vessel may deem relevant for the purpose of ensuring the safety of theirs or another vessel.

Indicative transit routes

- 1.5.3.13 Indicative routes will be developed once the offshore elements of the Transmission Assets have been developed post-consent.
- 1.5.3.14 Similar to **section 1.5.3**, once the operation and maintenance port/s have been determined, this section will present information on the routes between the potential work site (such as for cable repair works)

² Sécurité is a procedure word used in the maritime radio service that warns the crew that the following message is important safety information. Sécurité warnings are normally transmitted via VHF on a dedicated channel.

and port. This will include navigational charts showing an indicative passage plan for vessels including reporting points, crossing points for other regional routes, along with any wind farms that may need to be crossed.

Anchoring

- 1.5.3.15 This section of the Final VTMPs will provide context on vessels anchoring within the Offshore Assets Order Limits.
- 1.5.3.16 Anchoring is at the discretion of the vessel Master but can be in conjunction with the information provided by the MC. When determining the appropriate location to anchor consideration is given to:
- available water depth;
 - potential seabed obstructions;
 - seabed type and charted hazards including cables/pipelines;
 - weather and tidal information including current and predicted weather;
 - avoidance of prohibited anchorage areas;
 - consideration of other anchored vessels;
 - avoidance of known areas of other marine activity such as oil and gas support, fishing or recreational boating;
 - avoidance of main commercial routes;
 - pilot boarding area or other navigational features, such as spoil grounds or subsea cables; and
 - available swinging area.
- 1.5.3.17 Operation and maintenance vessels requiring anchorage within the Offshore Order Limits will require permission to do so from the MC.

Environmental limits

- 1.5.3.18 This section of the Final VTMPs will provide details of what environmental factors will be considered in vessel operations and what limits will be adhered to.
- 1.5.3.19 These may include limitations on (for example):
- metocean conditions for particular vessels or operations to maintain safety;
 - fuel types or vessel speeds to meet emissions requirements; or
 - schedules or hours of operation to meet noise/light emissions requirements.
- 1.5.3.20 These will depend on the vessels selected, their schedules and the activities in which they are engaged.

1.5.4 Reporting protocol

1.5.4.1 All vessels associated with the Transmission Assets are required to report to each Applicant's MC via the means prescribed once the MC has been defined. The times in which vessels would be required to report to the MC include:

- on departure from port to advise of intended activities and estimated time of arrival to the work site;
- on approach to the work site, vessels will request permission to enter from the MC;
- when transiting between areas of the work site;
- postponement of activities at the work site;
- on completion of activities;
- before transfer of personnel and upon completion of transfer; and
- on arrival at the port.

1.5.4.2 The format of the reporting will include the following information.

- Vessel name.
- Persons on board.
- Activities to be undertaken.
- Where activities are to be taking place (if relevant).
- Intended route.

1.5.5 Interface with Generation Assets' VTMPs

1.5.5.1 Once the activities, ports and vessels have been determined for the Morecambe Offshore Windfarm: Generation Assets and Morgan Offshore Wind Project: Generation Assets, their respective Final VTMPs will be created. This section will define where the responsibilities are split between the Transmission Assets Applicants Final VTMPs and the respective Generation Assets Final VTMPs.

1.6 Promulgation of information

1.6.1.1 This section describes how and what information about the Transmission Assets will be disseminated.

1.6.2 Notices to mariners

Local notices to mariners

1.6.2.1 Local Notices to Mariners (LNtMs) will be issued to a list of relevant local and national stakeholders in advance of any activity which may impact upon navigational safety.

1.6.2.2 Under conditions of the deemed Marine Licence (dML(s)) there are obligations to notify mariners in certain circumstances and at certain

times, for example at least 14 days prior to commencement of the authorised project and regularly through construction and at least five days before any planned operations and maintenance works.

- 1.6.2.3 The list of stakeholders will be regularly updated to ensure contact details remain up to date, and that all relevant parties are included. The organisations to which LNtMs will be issued includes the United Kingdom Hydrographic Office (UKHO) which will decide whether to include any of the information in their Weekly Admiralty NtMs³.

LNtM issued prior to commencement of the development

- 1.6.2.4 Prior to the commencement of any construction activity, local mariners, regional fisheries contacts and His Majesty's Coastguard (HMCG) will be made fully aware of the Licensable Marine Activity through LNtMs (or other appropriate means).

LNtM during construction

- 1.6.2.5 The MC will notify the UKHO and the standard list of stakeholders as to the progress of the construction of the Transmission Assets. These LNtMs will provide an updated description of the infrastructure currently in place, upcoming vessel movements and the areas where work is being undertaken. Notifiable activities include anything to pose a risk to navigational safety.

LNtM upon commissioning and during operation

- 1.6.2.6 On completion of the construction works and the commissioning of the Transmission Assets, local mariners, regional fisheries contacts and HMCG will be notified via LNtMs. In addition, LNtMs will be issued for any planned and unplanned maintenance activities that are outside the day-to-day maintenance activities associated with the Transmission Assets.
- 1.6.2.7 Under a condition of the dML(s), the undertaker must notify UKHO of completion (within 14 days) of the authorised project or any part thereof in order that all necessary amendments to nautical charts are made. Copies of all notices must be provided to MCA within five days.

Kingfisher bulletins and KIS-ORCA

- 1.6.2.8 The Kingfisher Information Service – Offshore Renewable & Cable Awareness (KIS-ORCA) project is a joint initiative between Subsea Cables UK and Renewable UK and is being managed by the Kingfisher information Service of Seafish.
- 1.6.2.9 Under a condition of the dML(s) there are obligations to notify the Kingfisher Information Service in certain circumstances for example at least 14 days prior to commencement of the authorised project with details of the vessel routes, timings and locations relating to the

³ Weekly issued updates issued by Admiralty distributors to bridge crews for the latest safety-critical navigational information.

construction. Details of the vessel routes, timings, location of the Transmission Assets, and of the relevant construction activities will be promulgated to the online Kingfisher bulletin online to inform the Seafish public body.

- 1.6.2.10 The MC will ensure that construction activity progress is promulgated in the Kingfisher fortnightly bulletin to inform Seafish of the vessel routes, timings and location of the construction activities. The bulletins will include contact details, offshore activity schedule, navigational safety procedures, advisory safe passing distances and any relevant drawings or other information specific to the activity.
- 1.6.2.11 On completion of the construction works and commissioning, a Kingfisher bulletin will be issued online to inform the commercial fishing industry. During the operation and maintenance phase, a Kingfisher bulletin will be issued online detailing any planned or unplanned maintenance activities that are outside day to day maintenance.

1.7 References

IMO (1972). Convention on International Regulations for Preventing Collisions at Sea (COLREGS) – Annex 3. London: IMO.

IMO (1974). International Convention for the Safety of Life at Sea (SOLAS). London: IMO.
MCA (2020). MGN 610 (M+F) Navigation: SOLAS Chapter V - Guidance on the Merchant Shipping (Safety of Navigation) Regulations 2020: Available at: <https://www.gov.uk/government/publications/mgn-610-mf-solas-chapter-v-guidance-on-the-merchant-shipping-safety-of-navigation-regulations-2020>. Accessed January 2024.

Morgan and Morecambe Transmission Assets Environmental Statement Chapter 7 Volume 2, Annex 7.1: Navigation Risk Assessment (document reference: F2.7.1).