Project Title	Seagreen Wind Energy Ltd
Document Reference Number	LF000009-CST-OF-PLN-0032

Vessel Management Plan

Offshore Transmission Asset Marine Licence Condition 3.2.2.8

For the approval of Scottish Ministers

Rev	Date	Reason for Issue	Originator	Checker	Approver
02	07/02/25	Approved for Use	[Redacted]	[Redacted]	[Redacted]
			[Redacted]	[Redacted]	[Redacted]

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Consent Plan Overview

Purpose of the Vessel Management Plan

This Vessel Management Plan (VMP) is submitted by Seagreen Wind Energy Limited (SWEL) on behalf of Seagreen Alpha Wind Energy Limited (SAWEL) (hereinafter referred to as Seagreen) to address the specific requirements of Condition 3.2.2.8 of the Offshore Transmission Asset (OTA) Marine Licence granted by the Scottish Ministers under the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009 on 10 October 2014, as varied on 06 June 2024 (the OTA Marine Licence) .

This VMP has been prepared to discharge consent conditions for the Seagreen OTA simultaneously.

In addition, the VMP also addresses aspects of vessel management that are noted in Conditions 3.1.2 and 3.2.3.3. of the OTA Marine Licence.

Scope of the VMP

This VMP covers, in line with the requirements of the OTA Marine Licence Condition 3.2.2.8, industry standards and good practice, the following:

- The numbers, types and specifications of the vessels required;
- Working practices that will be implemented so as to minimise the use of ducted propellers
- How vessel management will be coordinated during operation including military firing activities within the Danger Area D604; and
- Locations of the working port(s), how often vessels will be required to transits between port(s) and the Site and indicative vessel transit corridors proposed to be used during construction and operation of the Seagreen Project.

Plan Audience

This VMP will be submitted for approval to the Licensing Authority in consultation with other stakeholders in relation to monitoring compliance with the specific requirements of the relevant consent conditions.

Compliance with this VMP will be monitored by: Seagreen's appointed Contractors; and the Marine Directorate Licensing and Operations Team (MD-LOT).

Copies of the VMP are to be held in the following locations:

- Seagreen's head office;
- Seagreen's construction office and marine coordination centre; and
- At the premises of any Contractor (as appropriate), appointed by Seagreen.
- Aboard any vessel engaged in the OTA.

Note that the OTA is subject to the OFTO process. At the point of transfer of the OTA (and the OTA Marine Licence) to the OFTO, the OFTO will be responsible for the fisheries issues surrounding the OTA, for compliance with the OTA Marine Licence and compliance with and ongoing update of the VMP.

Following transfer of the OTA and the OTA Marine Licence to the Offshore Transmission Owner (OFTO), it shall be the responsibility of the OFTO to comply with the VMP - and all other associated Consent Plans that apply to the OTA - in full.

1. Introduction

1.1 Consents and Licences

Seagreen Wind Energy Limited (hereafter referred to as 'Seagreen') was awarded the Offshore Transmission Asset (OTA) Marine Licence by the Scottish Ministers in October 2014 under the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009.

In 2019, the OTA Marine Licence was also varied by Scottish Ministers and again in 2024 to amend rock protection quantities and coverage of the OTA.

1.2 Project Description

The OTA is located in the North Sea, in the outer Firth of Forth and Firth of Tay region and comprises the Offshore Substation Platform (OSP), their foundations and the offshore export cable, to facilitate the export of renewable energy to the national electricity transmission grid from the Seagreen Offshore Wind Farm. The location of the OTA and the Seagreen Project is shown in Figure 1.1.

The OTA consists of the following key components:

- Two OSPs, each installed on up to 12 pin pile foundations;
- Three subsea export cables, to transmit electricity from the OSP to the landfall at Carnoustie and connecting to the onshore export cables for transmission to the onshore substation and connection to the National Grid network. Export cables are buried where possible and where burial was not possible cable protection has been provided.

Detailed information of the operational procedures and good working practices proposed for the operational phase, is provided in the OTA Operations and Maintenance Programme (OMP) (LF000009-CST-OF-PRG-0004).

Detailed information on the design and layout of the Project is included within the OTA and OWF Design Specification and Layout Plan (DSLP) (LF000009-CST-OF-PLN-0004 and LF000009-CST-OF-PLN-0005).

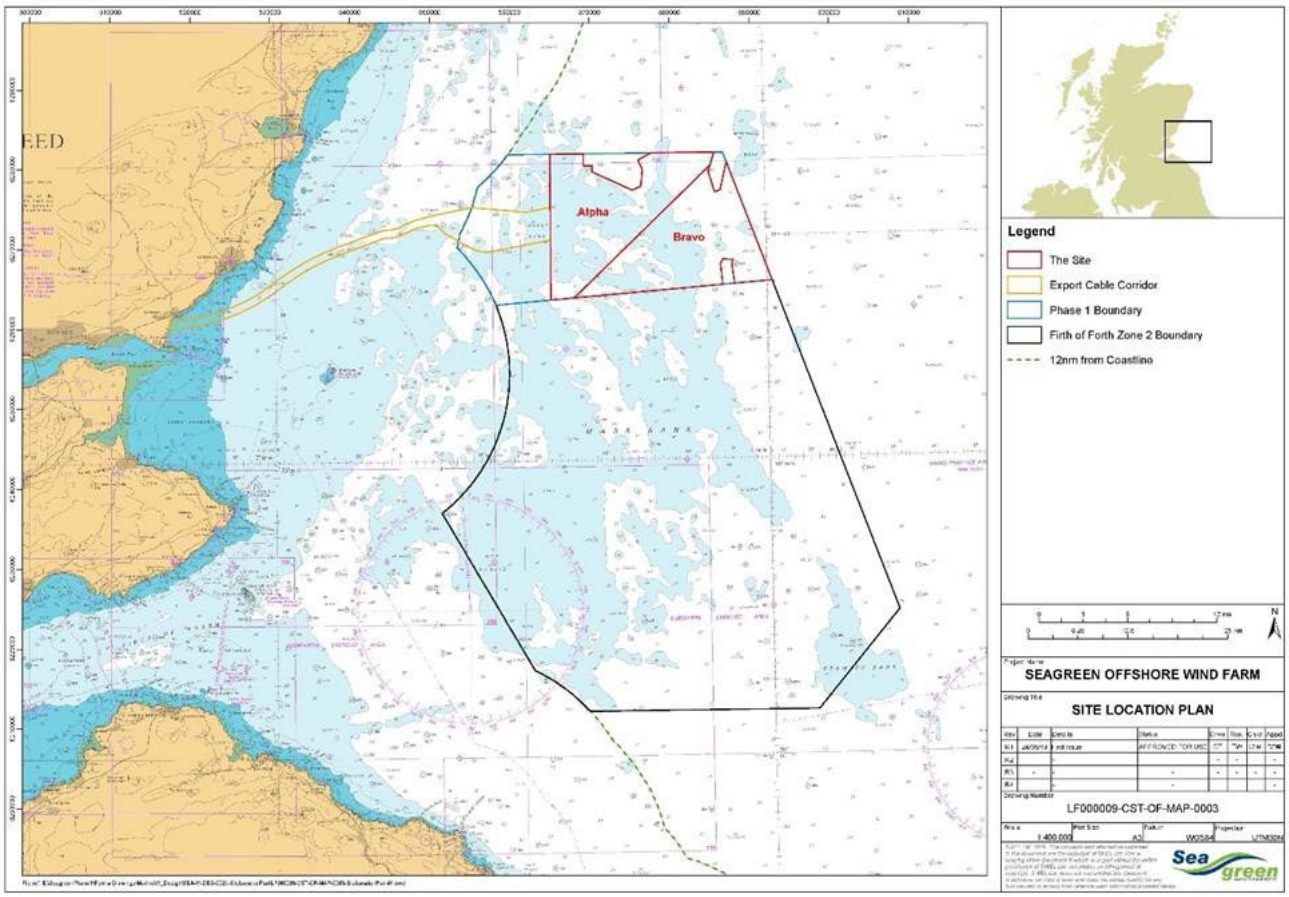


Figure 1.1 - Project Location

1.3 Consent and Licence Requirements

This VMP has been prepared to discharge condition 3.2.2.8 of the Offshore Transmission Assets (OTA) Marine Licence as set out in Table 1.1.

Table 1.1 - Other Consent Conditions for which information is provided in this VMP

Consent Document	Condition Reference	Condition Text	Reference to relevant Section of this VMP
OTA Marine Licence	Condition 3.1.2	The Licensee must provide, as soon as reasonably practicable, in advance of their engagement in any Licensable Marine Activity, the name and function of any vessel, vehicle, agent, contractor or sub-contractor appointed to engage in the Works. Where applicable the notification must include the master's name, vessel type, vessel International Maritime Organization (IMO) number and vessel owner or operating company.	Section 7
		Any changes to the supplied details must be notified to the Licensing Authority, in writing, prior to any vessel, vehicle, agent, contractors or sub-contractors engaging in the Licensable Marine Activity.	Section 7
		Only those vessels, vehicles, agents, contractors or sub-contractors notified to the Licensing Authority are permitted to carry out any part of the Works.	Section 7
		The Licensee must satisfy themselves that any masters of vessels or vehicle operators, agents, contractors or sub-contractors are aware of the extent of the Works for which this licence has been granted, the activity which is licenced and the terms of the conditions attached to this licence. All masters of vessels or vehicle operators, agents, contractors and sub-contractors permitted to engage in the Works must abide by the conditions set out in this licence.	Sections 2
		The Licensee must give a copy of this licence, and any subsequent variation made to this licence in accordance with Section 30 of the 2010 Act and section 72 of the 2009 Act, ensuring it is read and understood, to the masters of any vessels, vehicle operators, agents, contractors or sub-contractors permitted to engage in the Works.	Section 2

1.4 Updates and Amendments

Should any updates to the VMP become necessary, the change management process for any updates required to the VMP, including resubmission of consent plans for approval, is outlined in Appendix B.

2. Scope and Objectives of the VMP

This VMP has been prepared to address the specific requirements of the relevant conditions attached to the Marine Licence issued to Seagreen Wind Energy Limited (Seagreen) and applies to all construction required to be undertaken before the Final Commissioning of the Works.

This VMP covers, in line with the requirements of Condition 3.2.2.8 of the OTA Marine Licence, industry standards and good practice, the following:

- The numbers, types and specifications of the vessels required;
- Working practices that will be implemented so as to minimise the use of ducted propellers;
- How vessel management will be coordinated during operation including military firing activities within the Danger Area D604; and
- Locations of the working port(s), how often vessels will be required to transits between port(s) and the Site and indicative vessel transit corridors proposed to be used during operation of the Seagreen Project.

All Seagreen personnel, Contractors (including their Sub-Contractors) and vessels involved in the Seagreen Project must comply with the VMP.

3 Operational and Maintenance Port

Montrose Port will be used during the O&M phase of the Seagreen Project and will remain the location for the Marine Coordination Centre (MCC) and the O&M Base. Depending on maintenance requirements however, other port facilities may be required to accommodate larger components. No such port has been confirmed at this stage.

4 Management and Coordination of Vessels

4.1 General

During O&M, the following measures for vessel coordination will be continued by the Marine Coordination Centre:

O&M activities will be monitored from the MCC at Montrose;

- Permission for operational vessels to enter the site will be monitored by the MCC, for example using a Permit to Work system;
- The MCC may provide information to vessels seeking anchorage, however anchoring is at the discretion of the vessel master and should follow standard marine practice (details of anchorage areas are provided in the OTA Navigational Safety Plan (NSP) 2;
- The MCC will constantly monitor vessels and personnel via communication with vessels and Automatic Identification System (AIS) for any potential vessel access conflicts. The MCC will also detect and monitor unauthorised vessels;
- The MCC will obtain and provide localised weather information for vessels associated with the Seagreen Project, to assist in planning the work to be undertaken;
- The MCC will be the central contact point for contractors in case of an emergency. They will also maintain a copy of the Emergency Response Co-operation Plan (ERCoP);
- Vessels will be lit and marked, as required, and will comply with legislation appropriate for their class and area of operation; and
- Notices to Mariners (NtMs) will be issued after being reviewed and approved by Seagreen.

All marine operations and vessel movements will be planned to give due regard to the requirements of this Plan.

4.2 Danger Area D604

Danger Area D604 associated with the Barry Buddon firing range is located on the coast at Carnoustie, south of Montrose. Various military practise activities are undertaken at Barry Buddon, including live firing, para dropping, demolition, and unmanned aircraft systems. For awareness, the export cable corridor for the project overlaps with the Sea Danger Area. The corridor also overlaps with the northern section of the Civil Aviation Authority (CAA) Air Danger Area (D604).

Prior to final commissioning of the Project, the Barry Buddon Protocol will be updated and agreed with the MOD, to ensure it is appropriate for use throughout the operational stage of the Seagreen Project.

Detail on how interaction will be monitored during the operational phase are provided in the Barry Buddon Offshore Communications Protocol. The Communication Protocol provides an effective communications framework between Seagreen and the MOD, to ensure the safety of all vessels and personnel working within the vicinity of the Danger Area and to ensure that disruption to military firing activities within the Danger Area and any Seagreen O&M activity is minimised as much as possible.

5 Numbers, Types and Specifications of Vessels

5.1 Introduction

Condition 3.2.2.8 of the OTA Marine Licence requires that this plan includes details related to the vessels that will be used for the Seagreen Project, specifically:

> *the number, types and specifications of vessels required.*

This section describes the anticipated key vessel type (and relevant specifications) that will be employed during the operational phase of the Seagreen Project to facilitate operations and maintenance of the OSP.

All vessels used for the O&M phase of the Seagreen Project will be marked in accordance with International Regulations for Preventing Collisions at Sea (COLREGS) and fitted with an AIS transponder.

Operations and Maintenance works of the OSP are to be facilitated by crew transfer vessel (CTV). Specifications of this vessel are given in Table A1.1.

It should be noted that the crew transfer vessel presented below can only, at this stage, be indicative. The actual vessels used may vary depending on market availability; however, they will be similar in specification to the one presented below.

The following vessels will be involved in the O&M phase of the Seagreen Project, noting that this is not necessarily a comprehensive list:

- CTVs to support OSP maintenance, transiting approximately every three months, departing from the O&M base in Montrose.

Where identified as necessary via risk assessment, guard vessels may also be used during certain maintenance operations.

It is noted that the frequency at which unplanned maintenance will occur cannot be defined and will depend on the ongoing status of components associated with the Seagreen Project, the nature of any damage / decay, and the urgency required for any given maintenance operation. Seagreen will promulgate details of maintenance operations on an ongoing basis via the usual means (e.g., NtM, Kingfisher Bulletins etc).

Table A1.1: Indicative Specifications of the Crew Transfer Vessel

Vessel Name	Windcat 101
MMSI	235086213
IMO	9574913
Length Overall	27.86
Breadth	9.32
Design or Maximum Draft	1.9

Throughout the O&M phase it is anticipated that major maintenance shall be required in addition to the planned regular maintenance. Major maintenance requirements shall vary from year to year and therefore it is not currently possible to provide a comprehensive schedule for such activity.

Relevant details with regards to maintenance will be promulgated as required via the standard means (e.g. NtM, Kingfisher bulletin).

6 Indicative Transit Routes

The key port location for transiting to the windfarm during O&M is Montrose (Seagreen MCC and operations base). The indicative O&M transit routes to site from Montrose port have been agreed in discussion with fisheries stakeholders. These defined routes will be used by Seagreen Project vessels, where practical, to promote safe navigation. Impacts on third party commercial, recreational or fishing traffic within the surrounding sea area will be mitigated via compliance with COLREGs (IMO, 1972) and effective promulgation of information via the MCC. These routes will also notify local users of areas where they are likely to encounter vessels associated with the Project.

It should be noted that these indicative routes are not intended to be prescriptive for the purposes of navigation and will not be followed precisely by every vessel. All vessels shall submit a passage plan as required under SOLAS (IMO, 1974).

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, or notified through Notices to Mariners, or other such sources;
- Due to the vessel originating from or being bound for a destination that is not indicated by the transit routes;
- Instructions from the MCC or other responsible person in charge of coordinating and managing vessel traffic; and
- Such other reasons as the Master of the vessel may deem relevant for the purposes of ensuring the safety of his vessel or another vessel.

Contractor vessels will be advised of the importance of adhering to the Code of Good Practice defined for contractor vessels (See OTA Fisheries Management & Mitigation Strategy (FMMS)). The MCC will monitor O&M vessel locations and will advise vessels on use of transit routes and shelter areas. Seagreen will seek to avoid or minimise potential disruption of fishing activity resulting from their use. Wherever possible Seagreen has sought to use routes habitually used by shipping traffic in the area.

A significant static gear fishery operates in the waters off the Angus coast and a route from Montrose out to the site has been identified that seeks to minimise any interference. Figure A1.1, shows the indicative O&M transit route within fishers will provide gear locations to the MCC. This information will be communicated to the contractor vessels with the expectation that the gear should be avoided wherever it is safe and practicable to do so.

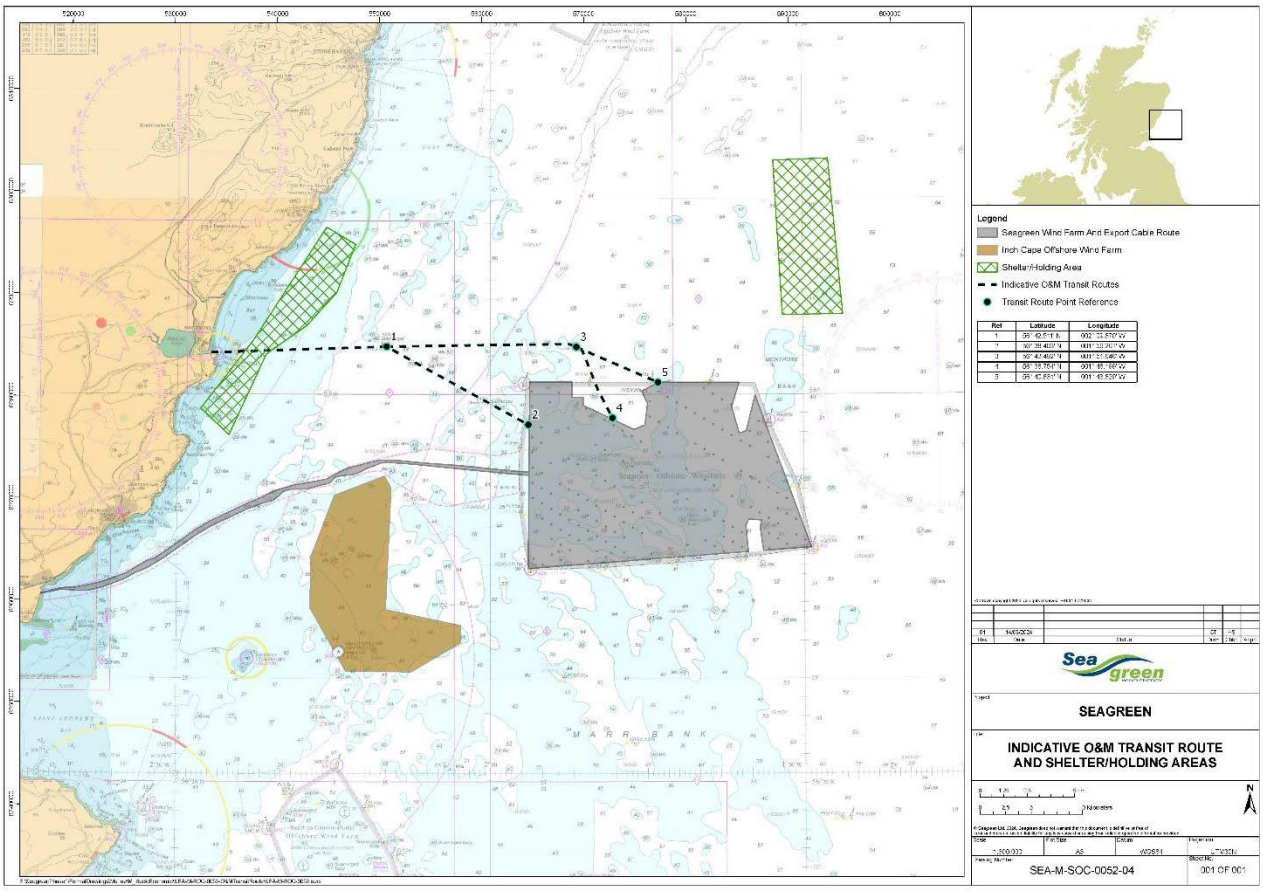
Seagreen also recognises that static fishing gear may be located anywhere in the proposed areas (transit route / shelter & holding areas). Seagreen contracted vessels will always maintain a lookout for, and avoid, marked static fishing gear. There is national guidance for appropriate marking of fishing gear, The Marking of Creels (Scotland) Order 2020.

6.1 Shelter and Holding Areas

Two areas have been identified to provide shelter for vessels during adverse weather conditions, or to operate as holding areas for vessels awaiting authorisation to enter the project site area. These have been discussed and agreed during consultation with local fisheries representatives, and are marked on Figure A1.1. Use of the offshore holding area north of the wind farm site is expected to be restricted by weather conditions.

During the O&M phase, the shelter areas may be used periodically, principally during major maintenance campaigns. Vessel movements will be planned around forecasted adverse weather to reduce the need to use the shelter areas.

Use of shelter/holding areas at all project phases will be determined by weather, sea state, the project programme and maritime safety considerations and will at all times be monitored by the MCC.



FigureA1.1: Indicative O&M Transit Route and Shelter / Holding Areas

6.2 Environmental Considerations

The Site is within foraging range of several internationally important seabird breeding colonies and the wider area of the outer Firth of Forth and Firth of Tay region is known to be important for seabirds throughout the year. Seabirds will be subject to some level of disturbance where they encounter vessels using the indicative vessel transit routes. However, as set out in the ES, no significant ornithological effects are predicted to result from vessel activity associated with O&M. Use of regular vessel transit routes will act to restrict the spatial distribution of such disturbance and minimise, as far as possible, the effects arising.

A number of sensitive marine mammal species are also likely to be encountered within the Site and in the wider area at any time of year, with increased probability during summer months. However, as set out in the ES, no significant effects were reported on marine mammal species as a result of increased vessel activity during O&M. As with seabirds, the use of regular vessel transit routes will act to restrict the spatial distribution of such disturbance and minimise, as far as possible, the potential for disturbance of marine mammals.

Vessels will also take due regard of any additional available information as to areas which may impact upon displacement and disturbance in relation to ornithology and marine mammals and guidance where necessary will be provided to relevant vessels at mobilisation. Vessels will observe and follow the Scottish Marine Wildlife Watching Code (SNH/NatureScot, 2017). Details of environmental monitoring and management are provided in the PEMP and OEMP.

7 Reporting

At present there is no intention to undertake regular reporting in relation to vessel management during the O&M phase although records of O&M vessel movements and activity will be maintained remotely by the MCC. Transportation Audit Reports shall be prepared and submitted should additional deposits need to be made as part of any maintenance works. Details will be provided to the Licensing Authority prior to the engagement of any new vessel.

8 Working Guidance on Ducted Propellers

It is understood that the requirements listed in OTA Marine Licence Condition 3.2.2.8 are derived from prevailing advice issued by the Statutory Nature Conservation Bodies (SNCBs) (JNCC, 2012) at the time of OTA Marine Licence application and determination. This identified concerns regarding the risk of corkscrew injuries to seals. Such injuries were initially attributed to some ducted propeller systems such as Kort nozzle or some types of Azimuth thrusters, commonly used by ducted propeller vessels.

Since the application, new evidence relating to corkscrew injuries to seals has emerged alongside new advice from the SNCBs (JNCC, 2015). The most recent advice states:

‘*it is considered very likely that the use of vessels with ducted propellers may not pose any increased risk to seals over and above normal shipping activities and therefore mitigation measures and monitoring may not*

be necessary in this regard, although all possible care should be taken in the vicinity of major seal breeding and haul-out sites to avoid collisions.'

Due to this new scientific evidence and the revised SNCB advice, the risk of propeller collision impacts associated with the risk of ducted propellers by operations vessels are considered to be low risk. In line with this recent guidance issued since consent was awarded, Seagreen does not propose any additional specific mitigation or monitoring measures in respect of the use of ducted propeller vessels.

Appendix A - VMP List of Abbreviations and Definitions

Term	Description
AIS	Automatic Identification System
Alpha Marine Licence	Marine licence granted by the Scottish Ministers under the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009 in respect of Seagreen Alpha Wind Farm on 10 October 2014 as amended by the revised marine licence granted by the Scottish Ministers on 28 August 2018 (reference 04676/18/0) and as further amended by the revised marine licence granted by the Scottish Ministers on 15 December 2023 (reference MS-00010504).
Audit	Inspection to confirm, compliance and identify and correct non-conformances
Bravo Marine Licence	Marine licence granted by the Scottish Ministers under the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009 in respect of Seagreen Bravo Wind Farm on 10 October 2014 as amended by the revised marine licence granted by the Scottish Ministers on 28 August 2018 (reference 04677/18/0) and as further amended by the revised and transferred marine licence granted by the Scottish Minsters on 15 December 2023 (reference MS-00010505) .
CEMP	Offshore Construction Environmental Management Plan
CLV	Cable Lay Vessel
CMS	Construction Method Statement as required under the Offshore Transmission Asset Marine Licence Condition 3.2.2.4
COLREGS	International Regulations for the Prevention of Collisions at Sea
Commitments register	A register that sets out all commitments to manage and mitigate potential environmental impacts made by SWEL
Contractor	A contractor as appointed by SWEL
CoP	Construction Programme as required under the Offshore Transmission Asset Marine Licence Condition 3.2.2.3
CTV	Crew Transfer Vessel
E	East
ECoW	Ecological Clerk of Works as required under the OTA Marine Licence Condition 3.2.2.12.
EMP	Environmental Management Plan as required under the OTA Marine Licence Condition 3.2.1.2.
ERCoP	Emergency Response Co-operation Plan
ES	Environmental Statement

Term	Description
ETA	Estimated Time of Arrival
HLV	Heavy Lift Vessel
HTV	Heavy Transport Vessel
IMO	International Maritime Organization
ISV	Installation Support Vessel
JNCC	Joint Nature Conservation Committee
JUV	Jack-Up Vessel
Km	Kilometre
Licensee	Seagreen Wind Energy Ltd (Seagreen), a company with number 06873902 and having its registered office at No1 Forbury Place, 43 Forbury Road, Reading, United Kingdom RG1 3JH, on behalf of SAWEL in respect of the OWF and on behalf of SAWEL and SBWEL in respect of the OTA.
LMP	Lighting and Marking Plan, required under the OTA Marine Licence Condition 3.2.2.14.
LOA	Length Overall
m	Metres
m^2	Square metres
MCA	Maritime and Coastguard Agency
MCC	Marine Coordination Centre
MGN	Marine Guidance Note
MMSI	Maritime Mobile Service Identity
MOD	Ministry of Defence
MD-LOT	Marine Directorate Licensing and Operations Team
N	North
nm	Nautical Miles
NSP	Navigational Safety Plan, as required for approval under the OTA Marine Licence Condition 3.2.2.9.
NtMs	Notice to Mariners
NRA	Navigational Risk Assessment
O&M	Operations and Management
Offshore CEMP	Construction Environmental Management Plan as required under the OTA Marine Licence Condition 3.2.1.2.

Term	Description
OfTW	Offshore Transmission Works
OMP	Operations Management Plan
OSP	Offshore Substation Platform means an alternating current Offshore substation platform which is a standalone modular unit that utilises the same substructure and foundation design as a wind turbine generator
OTA	Offshore Transmission Asset, comprising the OSPs and the transmission cable required to connect the Wind Farm Assets to the Onshore Transmission Works (OnTW) from the OSPs to the MHWS at the landfall at Carnoustie
OWF	the Wind Farm Assets
PEMP	OWFs Environmental Monitoring Programme as required under the Offshore Transmission Assets Marine Licence Condition 3.2.1.1
PLGR	Pre-Lay Grapnel Run
S	South
S36 Consents	Consent under section 36 of the Electricity Act 1989 granted by the Scottish Ministers on 10 October 2014 in respect of the Seagreen Alpha and Seagreen Bravo offshore wind farms, both as varied by the Scottish Ministers by decision letter issued pursuant to an application under section 36C of the Electricity Act 1989 on 28 August 2018 and, in respect of the Seagreen Bravo S36 Consent, as assigned, with the consent of the Scottish Ministers from SBWEL to SAWEL by assignation dated 22 November 2019 and intimated to the Scottish Ministers by intimation dated 27 November 2019.
SAWEL	Seagreen Alpha Wind Energy Limited, a company with registered number 07185533 and having its registered office at No1 Forbury Place, 43 Forbury Road, Reading, United Kingdom RG1 3JH
SBWEL	Seagreen Bravo Wind Energy Limited, a company with registered number 07185543 and having its registered office at No1 Forbury Place, 43 Forbury Road, Reading, United Kingdom RG1 3JH
Seagreen	Seagreen Wind Energy Limited (SWEL), the parent company of Seagreen Alpha Wind Energy Ltd (SAWEL) and Seagreen Bravo Wind Energy Ltd (SBWEL), (company number 06873902) and having its registered office at No.1 Forbury Place, 43 Forbury Road, Reading, United Kingdom, RG1 3JH
Site	The area outlined in red and the area outlined in black in the figure contained in Part 4 of the Marine Licence*
SNCBs	Statutory Nature Conservation Bodies
SNH	Formerly known as Scottish Natural Heritage, now NatureScot
SOLAS	Safety of Life at Sea
SOV	Service Operations Vessel

Term	Description
TBC	To Be Confirmed
VHF	Very High Frequency
VMP	Vessel Management Plan, required under the Offshore Transmission Assets Marine Licence Condition 3.2.2.8
VTS	Vessel Traffic Scheme
W	West
WDC	Whale and Dolphin Conservation
Wind Farm Assets	Collective term to describe the WTGS, jacket structures, foundations and associated inter array cabling
WTG	Wind turbine generator

Appendix B – The VMP Change Management Procedure