

<b>Project Title</b>	Seagreen Wind Energy Ltd
<b>Document Reference Number</b>	LF000009-MIP-MA-MAN-NOT-0001

## Seagreen Offshore Wind Farm.

### Weekly Notice of Operations 28/2022

**Issue Date – 11th July 2022.**

**Notice of Operations on Seagreen Offshore Wind Farm.**

**Work planned for the period 11-07-2022 to 17-07-2022.**

**Construction activities commenced on Seagreen Offshore Wind Farm on Thursday 17<sup>th</sup> December 2021 with works at the export cable landfall site. This notice will be updated weekly giving information of the progress and resources involved in the construction of the windfarm. The intention is to give notice of the activities involved in the construction phase of the project. Should anyone have any questions regarding construction operations we kindly ask that you put them forward well in advance.**

The Seagreen Offshore Wind Farm is located in the outer Firth of Forth and Firth of Tay region of the North Sea. The site is situated approximately 17.5 nautical miles East-southeast of the Port of Montrose where the project Marine Coordination Centre will be located during the construction and operational phases. The first phase of the development will consist of 114 suction bucket foundation structures, with associated 114 10MW offshore wind turbine generators, 1 HVAC offshore substation platform, associated inter array and export cabling. The generated power will be transmitted to the National Grid via 3 subsea transmission cables making landfall at Carnoustie, Angus, to the Southwest of the development site. Grid connection will

be achieved at the Tealing onshore substation. The second phase of the project will consist of 36 piled foundation structures, with associated 36 Wind Turbine Generators, associated inter array and export cabling and one additional 1 HVAC offshore substation platform. The phase 2 transmission cable is proposed to make landfall at Cockenzie, East Lothian (subject to appropriate licensing).

The Seagreen development site is highlighted below in red, the export cable corridor is highlighted in blue.

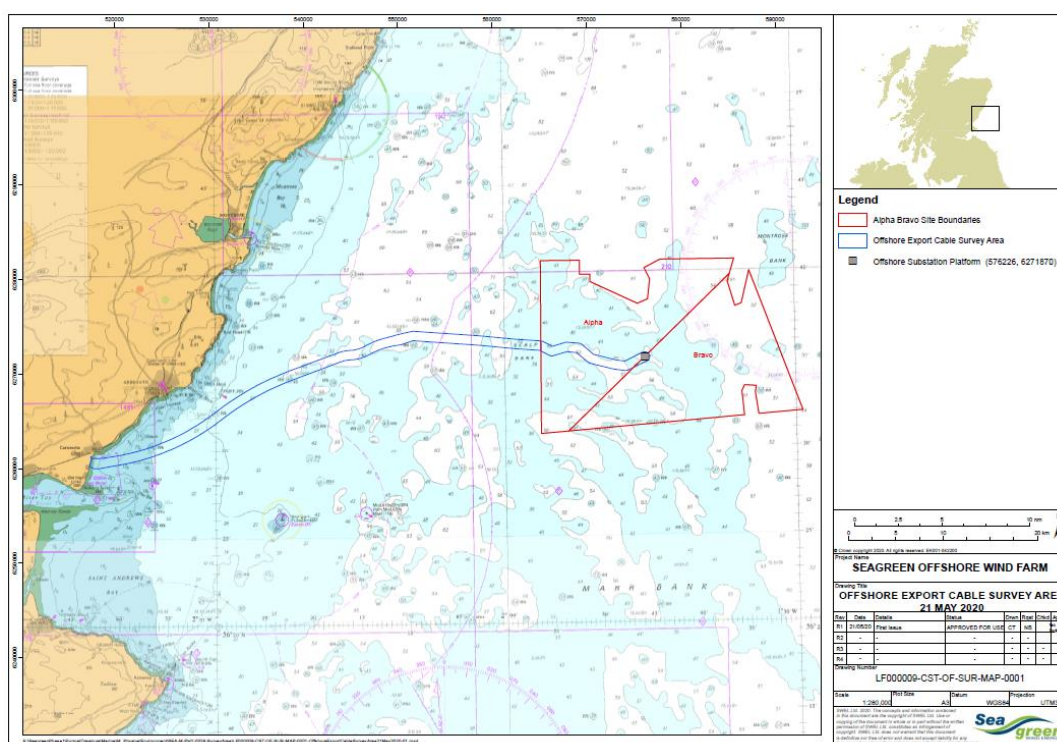


Fig 1 – Seagreen offshore wind farm location and export cable corridor.

## 1. Contact details for Marine Coordination

The following contact can provide more information if required.

Telephone Number (24/7 Operations)	+44 (0) 333 344 5255
Email for Marine Coordinator	seagreenmarinecoordination@sse.com
Address	Seagreen Wind Energy Ltd, O&M Building, Windy Waves House, South Quay Ferryden, Montrose, Angus DD10 9SL

## 2. Export cable works.

### 2.1 Export Cable Landfall works.

Works on the export cable protection pipes continues. Further details are below in section 2.2. The landfall works area is shown below in Fig 2.





Fig 2 – Landfall works area located at Carnoustie Barry Golf Links.

### 2.2 Nearshore export cable protection and diving works.

Operations on the self-submersible cable protection pipes continues. Works will be conducted from the DSV Sophie and the Tug Teddy, vessel details below. Export Cables 1 & 2 have been pulled in at the landfall site at Carnoustie, surface laid and pulled into the Offshore Substation Platform.

Six temporary anchors have been placed on the seabed to secure the self-submersible cable protection pipes prior to export cable pull in activities. These temporary anchors are surface marked by day-glo pellet buoys. The coordinates and locations of the anchors are shown below in fig 3 and table 1.

Vessel – MPV Sophie	Contact Details
	Call Sign
	LK7943
	MMSI
	258003500
	Vessel Details
	Length
	14.9m
	Beam
	7.0m
	Draft
	1.0m
	Vessel Contact
	+47 928 35 222

Vessel – Teddy	Contact Details
	Call Sign
	PBFE
	MMSI
	244630458
	Vessel Details
	Length
	23.4m
	Beam
	8.0m
	Draft
	2.3m
	Vessel Contact
	TBC

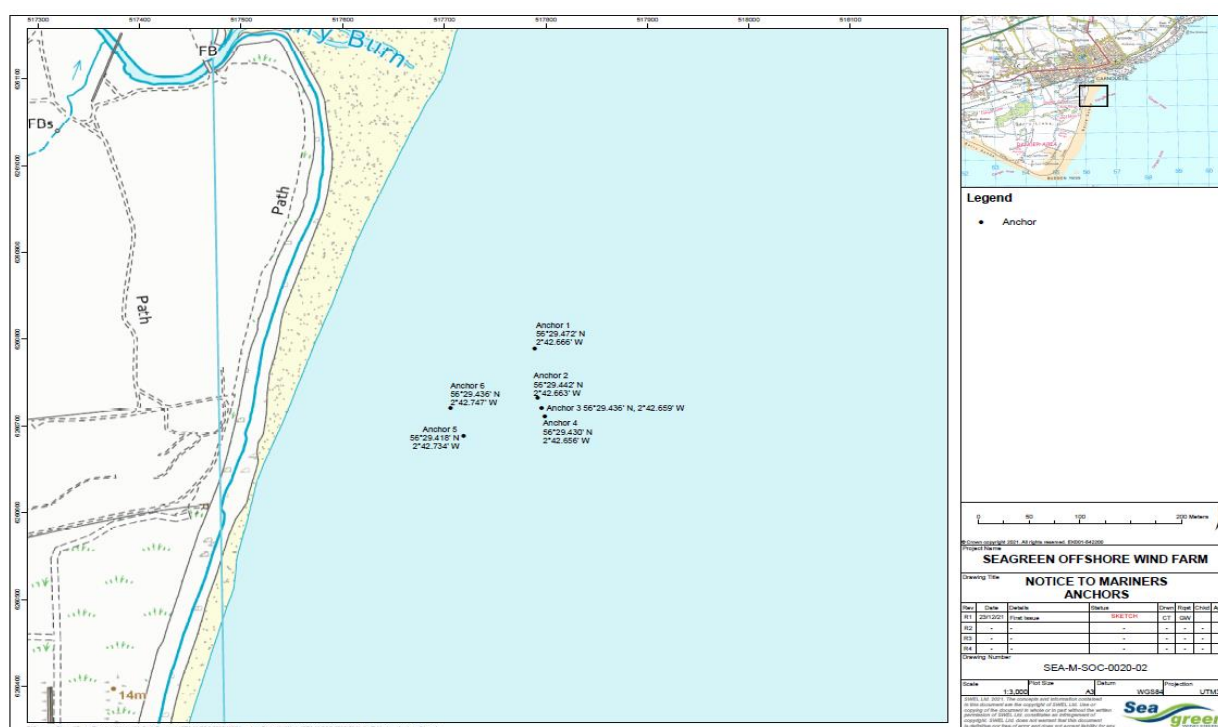


Fig 3



ID	Latitude (DDM WGS 84)	Longitude (DDM WGS 84)
Anchor 1	56° 29.472' N	2° 42.666' W
Anchor 2	56° 29.442' N	2° 42.663' W
Anchor 3	56° 29.436' N	2° 42.659' W
Anchor 4	56° 29.430' N	2° 42.656' W
Anchor 5	56° 29.418' N	2° 42.734' W
Anchor 6	56° 29.436' N	2° 42.747' W

Table 1 – Temporary anchor coordinates.


## 2.3 Export Cable Installation

Export cables 1 & 2 have now been installed and trenched, three guard vessels remain on station to guard exposed sections of export cable 1 & 2.

## 3. Offshore Platform (OSP) Topside Structure Hook up and Commissioning


On behalf of Seagreen Wind Energy Ltd, Petrofac will commission the Seagreen Offshore Sub-station.


The self-elevating jack up barge Ran has now left the site. The Jack-up vessel Wind Orca is expected to jack up at the sub-station platform this week to provide accommodation facilities for those personnel involved in the commissioning of the platform.

Vessel – Wind Orca	Contact Details	
	Call Sign	OZSB2
	MMSI	219029786
	Length	161.3m
	Beam	49.03m
	Draft	5.7m
	Vessel Contact	Morten Guldberg – Installation Manager +45 314 314 63

#### 4. Boulder clearance works.

Boulder clearance operations will continue within the Seagreen Offshore Windfarm site boundary. The boulder clearance vessels Sartor and Inyanga Entsha are equipped with an ROV and integrated tine grab tool. The vessels will relocate boulders which are considered a hazard to the inter array cable routes and areas surrounding the wind turbine generator locations. Vessels details are shown below.

Vessel – MRV Sartor	Contact Details	
	Call Sign	3ESV4
	MMSI	372633000
	Length	83.0m
	Beam	18.0m
	Draft	5.1m
	Vessel Contact	George Cooper - Seaway 7 07545 642881


Vessel – Inyanga Entsha	Contact Details	
	Call Sign	LXIY
	MMSI	253769000
	Length	57.9m
	Beam	14.0m
	Draft	3.9m
	Vessel Contact	George Cooper - Seaway 7 7545 81

#### 5. Inter Array Cable Installation.

On behalf of Seagreen Wind Energy Ltd, Seaway 7 will install and trench inter-array cabling between the wind turbine generator foundation structures and offshore sub-station platform within the Seagreen site boundary as shown in fig 1. The Installation Support Vessel Siem Stingray will support the cable laying vessel. The Cable Laying Vessel will be the Seaway Phoenix.

Already installed inter-array cable details including coordinates of installed foundation structures can be found in Section 8.

**Siem Stingray** – This vessel will act as the Installation Support vessel. Cable installation technicians will be deployed to the wind turbine generator foundation structures and Sub-station platform using the vessels' motion compensated gangway system.

Vessel – Siem Stingray	Contact Details	
	Call Sign	LAFP8
	MMSI	258783000
	Length	120.8m
	Beam	27m
	Draft	6.5m
	Vessel Contact	George Cooper - Seaway 7 07545 642881

**Seaway Phoenix** – This vessel will install and trench the inter array cables between adjacent wind turbine foundation structures and the offshore sub-station platform. This vessel will also conduct pre-lay grapnel runs along the planned cable routes prior to installation.


Already installed inter-array cable details including coordinates of installed foundation structures can be found in Section 8.

Vessel – Seaway Phoenix	Contact Details	
	Call Sign	2EEZ6
	MMSI	235084529
	Length	129.9m
	Beam	27.8m
	Draft	7.4m
	Vessel Contact	George Cooper - Seaway 7 07545 642881

## 5.1 Scour Protection Installation.


On behalf of Seagreen Wind Energy Ltd, Seaway 7 will install seabed scour protection rock to the wind turbine generator suction caisson foundation structures within the Seagreen site boundary as shown in fig 1.

The Flexible Fall Pipe Vessel (FFPV) Bravenes will transport the scour protection rock to the Seagreen site and install it on the seabed using a flexible fall pipe system. This allows scour protection to be installed around the suction caisson foundation structures to a high degree of accuracy. At the end of the fall pipe a remotely operated vehicle will be used to control the flow of rock to the seabed.

Vessel – Bravenes	Contact Details	
	Call Sign	PDCF
	MMSI	244860916
	Length	154.0m
	Beam	28.0m
	Draft	9.0m
	Vessel Contact	George Cooper - Seaway 7 07545 642881

## 5.2 Geophysical & UXO Survey

On behalf of Seagreen Wind Energy Ltd, Seaway 7 will conduct a Geophysical and unexploded ordnance survey on four spare wind turbine generator locations within the Seagreen site boundary. The survey vessel Mersey Guardian shall be on site for up to two weeks conducting the survey.

Vessel – Mersey Guardian	Contact Details	
	Call Sign	MFGL4
	MMSI	235091051
	Length	18m
	Beam	6 m
	Draft	2.1m
	Vessel Contact	Onshore Rep: George Cooper <a href="mailto:George.Cooper@seaway7.com">George.Cooper@seaway7.com</a>

## 6. Wind Turbine Generator Installation & Commissioning.

On behalf of Seagreen Wind Energy Ltd, MHI Vestas Offshore Wind continue installation and commissioning of wind turbine generators.

There shall be three vessels utilised during this operation.

The Jack-up vessel, Wind Orca, will install the wind turbine generator components.





The Service Operation Vessel (SOV) Acta Centaurus will provide accommodation for the WTG commissioning technicians. Personnel will utilise the Acta Centaurus's walk to work gangway system to access the WTG structures for commissioning activities.

The Crew Transfer Vessel, HST Harri will support the Acta Centaurus.

Wind turbine generators have been installed on 24 foundation structures.


A table of installed WTG's and their coordinates is shown below in Section 8.


Vessel – Wind Orca	Contact Details	
	Call Sign	OZSB2
	MMSI	219029786
	Length	161.3m
	Beam	49.03m
	Draft	5.7m
	Vessel Contact	Morten Guldberg – Installation Manager +45 314 314 63


Vessel – Acta Centaurus	Contact Details	
	Call Sign	PBOI
	MMSI	244341000
	Length	93.4m
	Beam	18.0m
	Draft	5.6m
	Vessel Contact	Paul Grant – Commissioning Manager +44 7587630374


### Crew Transfer Vessels (CTV's).


A number of crew transfer vessels support operations within the Seagreen site, please see details below.

Vessel – Seacat Sceptre	Contact Details	
	Call Sign	MKOU6
	MMSI	2322039754
	Length	24m
	Beam	8m
	Draft	1.4m
	Vessel Contact	Graeme Watters, +44 (0) 7932 229828

Vessel – Manor Enterprise	Contact Details	
	Call Sign	2FJE2
	MMSI	235091722
	Length	21.0m
	Beam	6.0m
	Draft	1.4m
	Vessel Contact	Onshore Rep: George Cooper <a href="mailto:George.Cooper@seaway7.com">George.Cooper@seaway7.com</a>

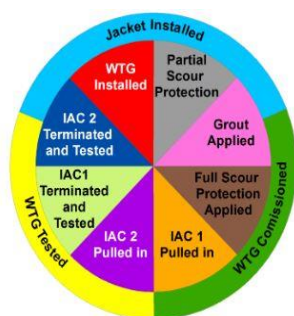
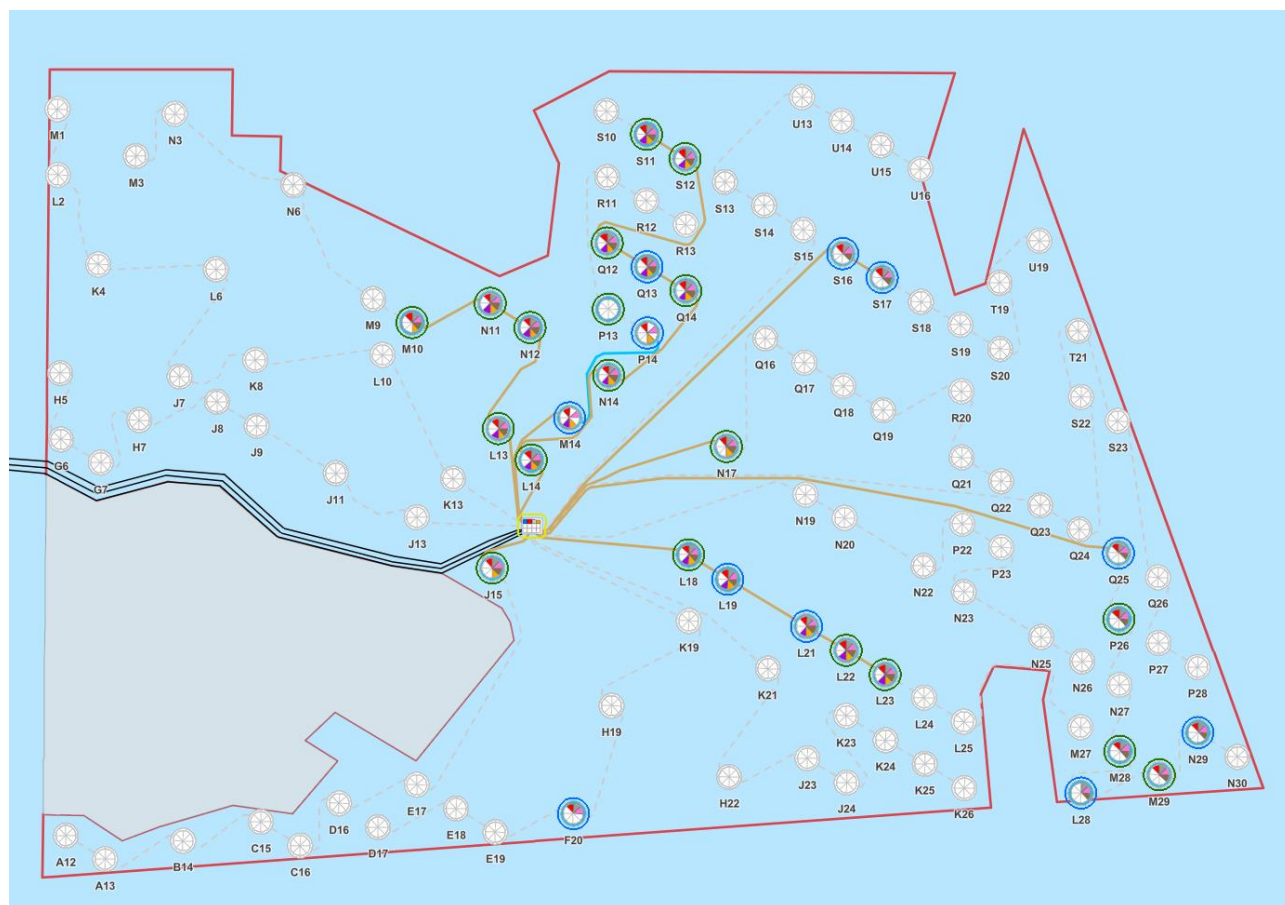
Vessel – Manor Endurance	Contact Details	
	Call Sign	MIDM7
	MMSI	232030193
	Length	24.0m
	Beam	10m
	Draft	2.5m
	Vessel Contact	Onshore Rep: George Cooper <a href="mailto:George.Cooper@seaway7.com">George.Cooper@seaway7.com</a>

Vessel – HST Harri	Contact Details	
	Call Sign	MGBN4
	MMSI	23202433
	Length	27.0m
	Beam	11.0m
	Draft	2.4m
	Vessel Contact	Onshore Rep: Paul Grant – 07587 630374

Vessel – Farra Ciara	Contact Details	
	Call Sign	MKPT9
	MMSI	232039877
	Length	27.0m
	Beam	8.0m
	Draft	1.7m
	Vessel Contact	<a href="mailto:ram.jeyaraman@petrofac.com">ram.jeyaraman@petrofac.com</a>

## 6. Construction progress update.

Please see below the current state of construction activity within the Seagreen site including coordinates of already installed assets, this will be updated weekly within this notice. Outside the issue of this notice updates can be obtained from the Duty Marine Coordinator, contact details are in section 1.



### **Installed Foundation and Wind Turbine Generators**

WTG ID	Lat & Long (WGS84 DDM)	WTG ID	Lat & Long (WGS84 DDM)
OSP	56° 35.094'N 1° 45.537'W	N12	56° 37.509'N 1° 45.577'W
J15	56° 34.579'N 1° 46.396'W	N14	56° 36.929'N 1° 43.832'W
L13	56° 36.279'N 1° 46.272'W	N17	56° 36.060'N 1° 41.215'W
L14	56° 35.899'N 1° 45.551'W	S16	56° 38.408'N 1° 38.643'W
L18	56° 34.740'N 1° 42.063'W	S17	56° 38.118'N 1° 37.771'W
L19	56° 34.450'N 1° 41.191'W	P14	56° 37.444'N 1° 42.971'W
L21	56° 33.869'N 1° 39.449'W	P26	56° 33.958'N 1° 32.515'W
L22	56° 33.579'N 1° 38.578'W	Q12	56° 38.539'N 1° 43.857'W
L23	56° 33.289'N 1° 37.708'W	Q13	56° 38.249'N 1° 42.984'W
M10	56° 37.572'N 1° 48.183'W	Q14	56° 37.959'N 1° 42.111'W
M14	56° 36.414'N 1° 44.691'W	Q25	56° 34.763'N 1° 32.524'W
M28	56° 32.349'N 1° 32.498'W	S11	56° 39.859'N 1° 43.009'W
M29	56° 32.057'N 1° 31.628'W	S12	56° 39.569'N 1° 42.135'W
N11	56° 37.798'N 1° 46.450'W	P13	56° 37.734' N 1° 43.844' W
L28	56° 31.835' N 1° 33.358' W	N29	56° 32.571' N 1° 30.767' W
F20	56° 31.585' N 1° 44.614' W		

### **Installed Inter Array Cables**


Array Cable	Cable Status	Array Cable	Cable Status
OSP – J15	Trenched	L21 – L22	Trenched
OSP – L13	Trenched	L22 – L23	Trenched
OSP – L14	Trenched	N14 – Q14	Trenched
OSP – L18	Trenched	Q13 – Q12	Trenched




OSP – N17	Trenched	Q12 – S12	Trenched
OSP – S16	Trenched	Q14 – Q13	Trenched
OSP -Q25	Trenched	S11 – S12	Trenched
L18 – L19	Trenched	N11 – M10	Trenched
L19 – L21	Trenched	L13 – N12	Trenched
L14 – N14	Trenched	S16 – S17	Trenched
N12 – N11	Trenched	OSP – M14	Trenched
M14 – P14	Trenched		

## 7. Guard Vessel Deployment.


In line with ongoing inter-array cable installation activities Seaway 7 have deployed two Guard Vessels. Six hourly VHF radio broadcasts shall be made containing information regarding the Seagreen development including installation activity, safety zone information and site demarcation buoyage information. The Guard Vessels shall be relieved regularly, the Guard Vessels Evening Star and Renown are currently on station.


Vessel – Renown	Contact Details	
	Call Sign	GJLQ
	MMSI	235001860
	Length	29m
	Beam	7m
	Draft	6m
	Vessel Contact	Onshore Rep: George Cooper <a href="mailto:George.Cooper@seaway7.com">George.Cooper@seaway7.com</a>


Vessel – GV Evening Star		Contact Details	
		Call Sign	MNEP3
		MMSI	235006716
		Length	21m
		Beam	7m
		Draft	5m
		Vessel Contact	Onshore Rep: George Cooper <a href="mailto:George.Cooper@seaway7.com">George.Cooper@seaway7.com</a>


## 9.1 Export Cable Guard Vessels

In line with ongoing Export cable installation works there will be three Guard Vessels deployed to guard any exposed cable, details below. Guard vessel Ellorah will relieve the Ocean Quest this week.

Vessel – Ocean Maid		Contact Details	
		Call Sign	MVWI7
		MMSI	235008862
		Length	22.0m
		Beam	6.0m
		Draft	3.5m

Vessel – Sardonyx		Contact Details	
		Call Sign	MQUY6
		MMSI	234311000
		Length	18.38m
		Beam	6.5m
		Draft	2.5m

Vessel – Ocean Quest	Contact Details	
	Call Sign	MSBS6
	MMSI	232004618
	Length	21.2m
	Beam	6.6m
	Draft	3.0m
	Vessel Contact	Onshore Rep: per- <a href="mailto:kristian.pederson@nexans.com">kristian.pederson@nexans.com</a>

Vessel – Ellorah BF12	Contact Details	
	Call Sign	2CJZ7
	MMSI	235073457
	Length	19.0m
	Beam	7.0m
	Draft	4.2m
	Vessel Contact	Onshore Rep: per-kristian.pederson@nexans.com

## 8. Offshore Fisheries Liaison Officers.

During the construction phase of the Seagreen project there will be Offshore Fisheries Liaison Officers (OFLO) deployed on selected construction vessels. The principal role of the OFLO is to establish and maintain effective communications with any fishing vessels encountered and to monitor compliance with good practice guidelines whilst doing so. The OFLO will record details of any fishing activity in and around the site including fishing vessels, gear and communications with fishing vessels and will provide regular updates to the Seagreen FLO. Please contact Seagreen Marine Coordination for further information.

## 9. Safety Zones.

Following consideration by Scottish government ministers it has been agreed that during the construction phases of the Seagreen development mandatory rolling 500m safety zones will be established around each Wind Turbine Generator and/or their foundations whilst construction works are in progress, as indicated by the presence of a construction vessel. The safety zones will be triggered whenever a vessel is on station at a WTG and undertaking construction activities.

In addition, mandatory pre commissioning 50m safety zones will be established around each Wind Turbine Generator and/or their foundations when construction works have been completed but prior to Wind Farm commissioning or where construction works have only been partially completed. These safety zones will be active at any structure during the construction phase where a construction vessel is not present at a Wind Turbine Generator.

## 10. Website

The official website for Seagreen Offshore Wind Farm can be found at

<https://seagreenwindenergy.com>

This contains all Seagreen Weekly Notices of Operations and Notices to Mariners, together with a large amount of general information about the project.






















There is also a Twitter feed at [@seagreenwind](#)

## 11. Distribution List

A central list of recipients is maintained by Seagreen Marine Coordination, if you are not the appropriate recipient or do not wish to receive these notices, please contact Marine Coordination as per the details in section 1 of this notice.

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## 12. Seagreen weekly vessel report.

Seagreen Offshore Windfarm Vessels & Operators									
Reference to Marine Licence Conditions 3.1.2 (OWF Alpha and Bravo ML), 3.1.2 (OTA ML) and 3.1.2 (Open Cut at Landfall ML)									
Vessel Data Matrix OWF/OTA/Open Cut at Landfall									
No. R/L	Vessel Picture	Vessel Name / Flag	Type / Function	Operator	Contact / contact details	Call sign / MMSI / IMO	LOA (m) Beam (m) Draft (m)	Date on Site	Marine Licence(s) applicable
1		Seacat Sceptre	Crew Transfer vessel	SWEL	Graeme Wattors Lead Marine Coordinator +44 (0) 7932 229828	MIKOU6 232039754	24m 8m	15/10/2021	OWF Alpha & Bravo ML
2		Wind Orca	Jack-up vessel	Vestas	Morten Guldberg Vestas +45 51451463	LXIY 253769000	57.9m x 14.0m	15/06/2022	OWF Alpha & Bravo ML
3		Acta Centaurus	Multi Purpose Offshore Vessel	Vestas	Paul Grant Vestas +44 7587630374	PBOI 244341000	93.4 x 18m	06/11/2021	OWF Alpha & Bravo ML
4		HST Harri	Crew Transfer vessel	Vestas	Paul Grant Vestas +44 7587630374	MGBN4 232024313	27 x 11m	06/11/2021	OWF Alpha & Bravo ML
5		Inyanga Entsha	Multi Purpose Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 2031454129	LXIY 253769000	57.9m x 14.0m	28/05/2022	OWF Alpha & Bravo ML
6		Teddy	Tug	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	PBFE 244630458	23.4m x 8.0m	30/06/2022	OTA ML & Open Cut at Landfall ML
7		MPV Sophie	Multi Purpose Vessel	Nexans AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	LK7943 25800350	14.9m x 7m x 1m	20/08/2021	OTA ML & Open Cut at Landfall ML
8		Santor	Multi Purpose Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 2031454129	3ESV4 372633000	82.5 x 18.83	23/12/2021	OWF Alpha & Bravo ML
9		Seaway Phoenix	Cable Laying Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 2031454129	2EEZ6 235084529	129.9 x 27.8	10/04/2022	OWF Alpha & Bravo ML
10		Bravenes	Rock Placement Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 2031454129	PDCF 244860916	154m x 28m	04/07/2022	OWF Alpha & Bravo ML
11		GV Sardonix	Guard Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	MOUY6 234311000	18.38m x 6.5m	11/06/2022	OWF Alpha & Bravo ML
12		Slern Stingray	Installation Support Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	1AFPH 258783000	120.8 x 27.0	10/04/2022	OWF Alpha & Bravo ML
13		Evening Star	Guard vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	MINP3 235006716	21m x 7m	03/07/2022	OWF Alpha & Bravo ML
14		GV Ocean Maid	Guard Vessel	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	MVW17 235008862	22.0m x 6.0m	16/06/2022	OTA ML & Open cut at landfall ML
15		Manor Enterprise	CTV	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	2FJE2 235091722	21.0m x 6.0m	03/04/2022	OWF Alpha & Bravo ML
16		Manor Endurance	CTV	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	MIDM7 232030193	24.0m x 10.0m	11/04/2022	OWF Alpha & Bravo ML
17		Renown	Guard Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	GILQ 235001860	29m x 7m	01/07/2022	OWF Alpha & Bravo ML
18		GV Ocean Quest	Guard Vessel	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	MS856	21.2m x 6.6m	20/06/2022	OTA ML & Open cut at landfall ML
19		Ferra Clara	CTV	Petrofac	Ram Jeyaraman ram.jeyaraman@petrofac.com	MIKPT9 232039877	27m x 8m	04/07/2022	OTA ML & Open cut at landfall ML
20		Mersey Guardian	Survey	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	2FGL4 235091051	18m x 6m	09/07/2022	OTA ML & Open cut at landfall ML
21		GV Ellorah BF12	Guard Vessel	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	2CIZ7	19.0mx 7.0mx4.2m	09/05/2022	OTA ML & Open cut at landfall ML





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