

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

Seagreen Offshore Wind Farm.

Weekly Notice of Operations 19/2022

Issue Date – 09th May 2022.

Notice of Operations on Seagreen Offshore Wind Farm.

Work planned for the period 09-05-2022 to 15-05-2022.

Construction activities commenced on Seagreen Offshore Wind Farm on Thursday 17th 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.

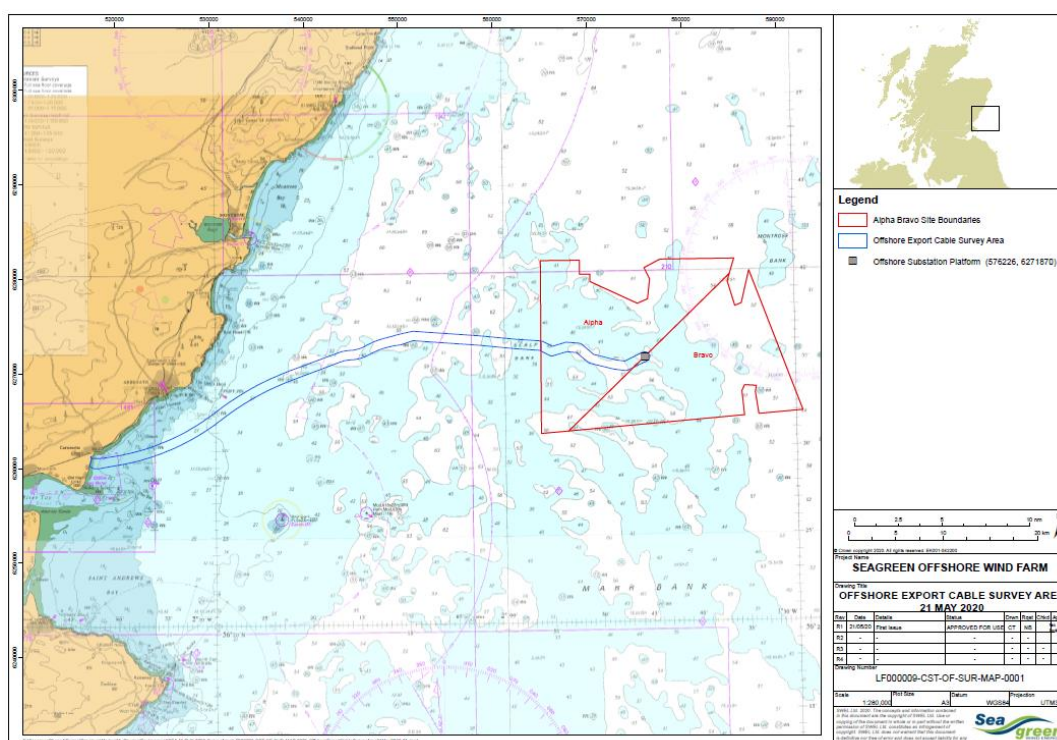


Fig 1 – Seagreen offshore wind farm location and export cable corridor.

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, Inchbraoch House Montrose Port Authority, South Quay Ferryden, Montrose, Angus DD10 9SL

2. Export cable works.

2.1 Export Cable Landfall works.

Onshore works and works on the export cable protection pipes continues. Export cable installation activities are underway. 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. Export cable installation activities are underway. Works will be conducted from the DSV Sophie, details below. The first end of the northerly export cable has been pulled into the landfall site and wet stowed in the vicinity of 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

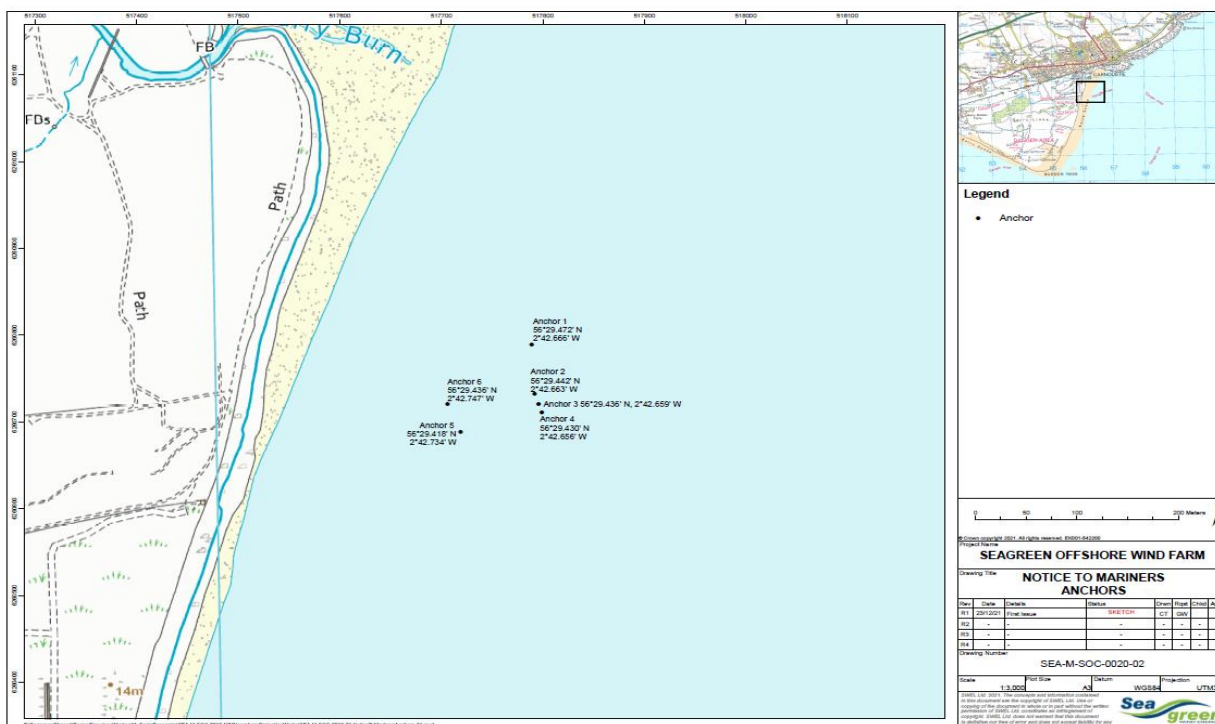


Fig 3

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

On behalf of Seagreen Wind Energy Ltd, Nexans Norway AS will install and trench three export cables between the landfall site at Carnoustie and the Offshore Substation Platform within the Seagreen site boundary. Export cable number 1 has been pulled into the Offshore Substation Platform. Nexans Aurora has pulled export cable 2 into the Carnoustie landfall site, it will now be surface laid to the Sub-station platform and pulled in.

Details of Nexans Aurora are below. Crew Transfer Vessel Channel Chieftain VI is being utilised by Nexans during the installation of Export Cable number 2.

Three guard vessels are on station to guard exposed sections of export cable 1 & 2.

Vessel – Nexans Aurora		Contact Details	
		Call Sign	LALC8
		MMSI	257682000
		Vessel Details	
		Length	158.4m
		Beam	31.2m
		Draft	6.6m
		Vessel Contact	+47 2341 1094 per-kristian.pederson@nexans.com

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 is now in position alongside the Sub-station platform and shall provide accommodation facilities for personnel involved in the commissioning of the Platform. It is expected that the Ran will be on location for a number of months whilst these activities take place.


Vessel details are shown below.

Vessel – Borr Ran	Contact Details	
	Call Sign	D5DC3
	MMSI	636015838
	IMO	8771320
	Length	74.95m
	Beam	83.52m
	Draft	10.1m
	Vessel Contact	ram.iejaraman@petrofac.com

4. Boulder clearance works.

Boulder clearance operations will continue within the Seagreen Offshore Windfarm site boundary. The boulder clearance vessel Sartor is equipped with an ROV and integrated tine grab tool. The vessel 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
	IMO	9087312
	Length	83.0m
	Beam	18.0m
	Draft	5.1m
	Vessel Contact	Graeme Watters, +44 (0) 7932 229828

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.

This week Seaway Phoenix will install inter-array cables at the assets in the below table. Already installed inter-array cable details including coordinates of installed foundation structures can be found in Section 9,

1.	SN-OSP to SN-J15 (Recover 2nd End from Wet Store at J15)
2.	SN-OSP – SN-S16
3.	SN-OSP – SN-Q25

Table 2 – Inter array cable installation locations.

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.

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

6. Wind Turbine Generator Commissioning.

On behalf of Seagreen Wind Energy Ltd, MHI Vestas Offshore Wind continue commissioning activity on installed wind turbine generators.

There shall be two vessels utilised during this operation.

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.

The WTG installation jack up vessel Wind Orca will conduct jacking trials within the Seagreen site boundary.

Wind turbine generators have been installed on 21 foundation structures.


A table of installed WTG's and their coordinates is shown below in Section 9.


Vessel – Wind Orca	Contact Details	
	Call Sign	5BRE3
	MMSI	219029786
	Length	161.3m
	Beam	49.03m
	Draft	6.0m
	Vessel Contact	+45 898 89699


Vessel – Acta Centaurus	Contact Details	
	Call Sign	PBOI
	MMSI	244341000
	Length	93.4m
	Beam	18.0m
	Draft	5.6m
	Vessel Contact	Vessel : Mobile - +31 (0) 6 139 733 63 Onshore rep: Paul Grant – Commissioning Manager +44 7587630374


7. 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 George.Cooper@seaway7.com

Vessel – Manor Endurance	Contact Details	
	Call Sign	MIDM7
	MMSI	232030193
	Length	24.0m
	Beam	10m
	Draft	2.5m
	Vessel Contact	Onshore Rep: George Cooper George.Cooper@seaway7.com

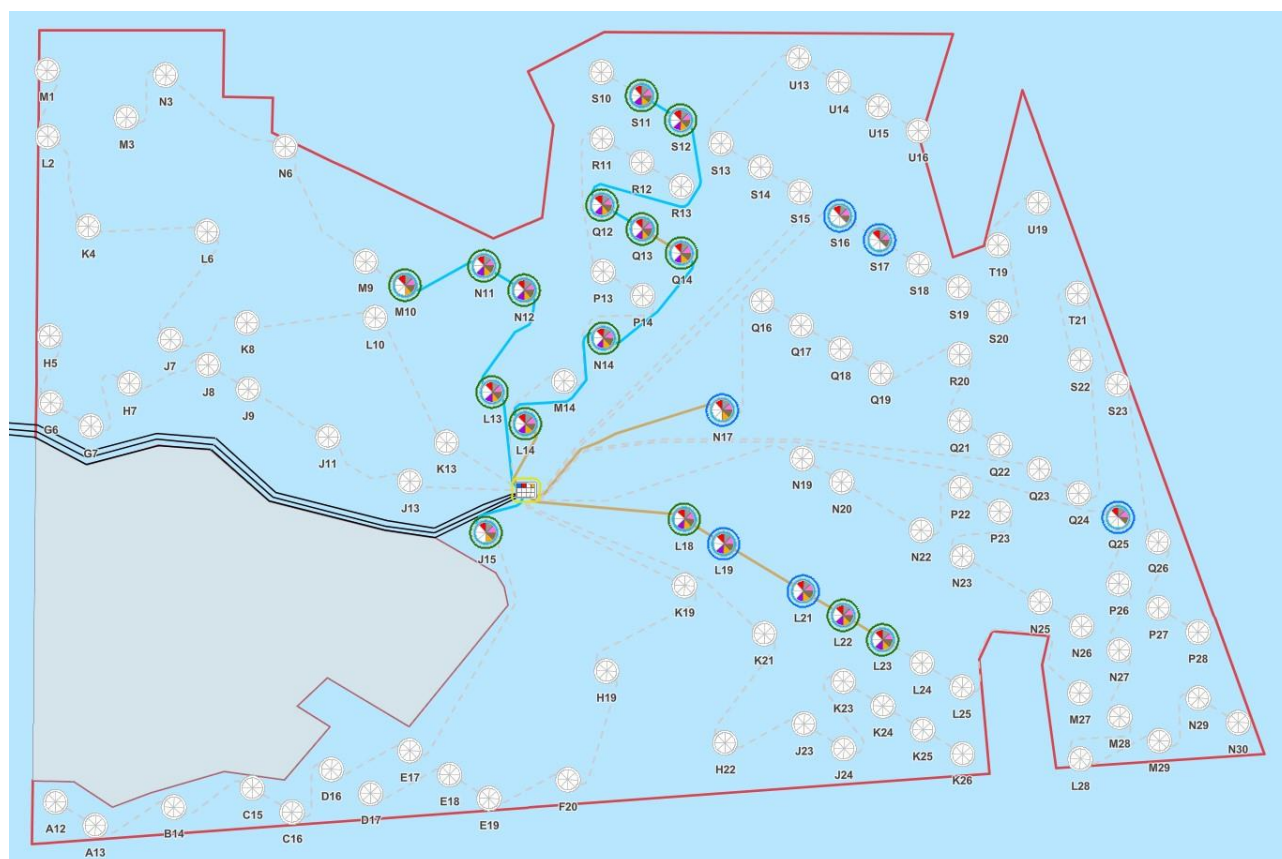
Vessel – HST Harri	Contact Details	
	Call Sign	MGBN4
	MMSI	23202433
	Length	27.0m
	Beam	11.0m
	Draft	2.4m
	Vessel Contact	Onshore Rep: Paul Grant – 07587 630374

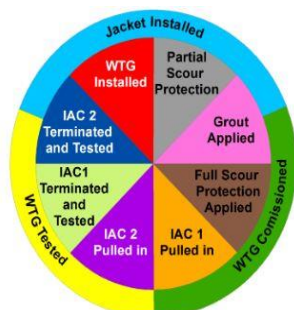
Vessel – MMS Superior	Contact Details	
	Call Sign	MGFO9
	MMSI	232024742
	Length	26.0m
	Beam	10.0m
	Draft	2.1m
	Vessel Contact	Onshore Rep: George Cooper George.Cooper@seaway7.com

Vessel – Channel Chieftain VI	Contact Details	
	Call Sign	2GAD4
	MMSI	235095697
	Length	19.0m
	Beam	7.3m
	Draft	2.0m
	Vessel Contact	+47 2341 1094 Per-kristian.pederson@nexans.com

8. 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	S16	56° 38.408'N 1° 38.643'W
J15	56° 34.579'N 1° 46.396'W	S17	56° 38.118'N 1° 37.771'W
L13	56° 36.279'N 1° 46.272'W	N12	56° 37.509'N 1° 45.577'W
L14	56° 35.899'N 1° 45.551'W	N14	56° 36.929'N 1° 43.832'W
L18	56° 34.740'N 1° 42.063'W	N17	56° 36.060'N 1° 41.215'W
L19	56° 34.450'N 1° 41.191'W	Q12	56° 38.539'N 1° 43.857'W
L21	56° 33.869'N 1° 39.449'W	Q13	56° 38.249'N 1° 42.984'W
L22	56° 33.579'N 1° 38.578'W	Q14	56° 37.959'N 1° 42.111'W
L23	56° 33.289'N 1° 37.708'W	Q25	56° 34.763'N 1° 32.524'W
M10	56° 37.572'N 1° 48.183'W	S11	56° 39.859'N 1° 43.009'W
N11	56° 37.798'N 1° 46.450'W	S12	56° 39.569'N 1° 42.135'W


Installed Inter Array Cables

Array Cable	Cable Status	Array Cable	Cable Status
OSP – J15	Surface Laid	L21 – L22	Trenched
OSP – L13	Surface Laid	L22 – L23	Trenched
OSP – L14	Trenched	N14 – Q14	Surface Laid
OSP – L18	Trenched	Q13 – Q12	Surface Laid
OSP – N17	Trenched	Q12 – S12	Surface Laid
L18 – L19	Trenched	Q14 – Q13	Trenched
L19 – L21	Trenched	S11 – S12	Surface Laid
L14 – N14	Surface Laid	N11 – M10	Surface Laid
M14 – N14	Surface Laid	L13 – N12	Surface Laid

9. 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 Shemarah II and Renown are currently on station.


Vessel – Shemarah II LH65	Contact Details	
	Call Sign	MVRR7
	MMSI	232007650
	Length	27.0m
	Beam	8.0m
	Draft	6.0m
	Vessel Contact	Onshore Rep: George Cooper George.Cooper@seaway7.com


Vessel – Renown FR246		Contact Details	
		Call Sign	GJLQ
		MMSI	235001860
		Length	24.0m
		Beam	7.0m
		Draft	5.5m
		Vessel Contact	Onshore Rep: George Cooper George.Cooper@seaway7.com

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. The Guard Vessel Ellorah BF12 will arrive on the 09th May to take up station nearshore.

Vessel – Ocean Trust		Contact Details	
		Call Sign	GFM2
		MMSI	234167000
		Length	20.6m
		Beam	7.0m
		Draft	4.0m
		Vessel Contact	Onshore Rep: per-kristian.pederson@nexans.com

Vessel – Sardonyx	Contact Details	
	Call Sign	MQUY6
	MMSI	234311000
	Length	18.4m
	Beam	6.5m
	Draft	2.5m
	Vessel Contact	Onshore Rep: per-kristian.pederson@nexans.com

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

10. 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.

11. 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.

12. 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](https://twitter.com/seagreenwind)














13. 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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14. 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									
	Vessel Picture	Vessel Name / Flag	Type / Function	Operator	Contact / contact details	Call sign / MMSI / IMO	LOA (m) / Beam (m) / D	Date on Site	Marine Licence(s) applicable
1		Seacat Sceptre	Crew Transfer vessel	SWEL	Graeme Walters Lead Marine Coordinator +44 (0) 7932 229828	MKOU6 232039754	24m 8m	15/10/2021	OWF Alpha & Bravo ML
2		Acta Centaurus	Multi Purpose Offshore Vessel	Vestas	Paul Grant Vestas +44 7587630374	PBCI 244341000	93.4 x 18m	06/12/2021	OWF Alpha & Bravo ML
3		HST Harri	Crew Transfer vessel	Vestas	Paul Grant Vestas +44 7587630374	MGEM4 232024313	27 x 11m	06/12/2021	OWF Alpha & Bravo ML
4		Wind Orca	Jack-up Vessel	Vestas	Morton Goldberg Vestas +45 314 314 63	SBUF3 219029786	161.3 x 49.03m	14/03/2022	OWF Alpha & Bravo ML
5		Nexans Aurora	Cable Laying Vessel	Nexans AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	LALCB 257682000	158.4 x 31.2m	30/04/2022	OTA ML & Open Cut at Landfall ML
6		MPV Sophie	Multi Purpose Vessel	Nexans AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	*LK7943 25800350*	14.9m x 7m x 1m	20/09/2021	OTA ML & Open Cut at Landfall ML

7		Sartor	MPV	Seaway7	Graeme Watters Lead Marine Coordinator +44 (0) 7932 229828	3ESV4 372633000	82.5 x 18.83	23/12/2021	DWF Alpha & Bravo ML
8		Seaway Phoenix	Cable Laying Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 2031454129	2EE26 235084529	129.9 x 27.8	10/04/2022	DWF Alpha & Bravo ML
9		GV Renown	Guard Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	6JLQ 235001860	24.0m x 7.0m	24/04/2022	DWF Alpha & Bravo ML
10		Siem Stingray	Installation Support Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	LAFP8 258783000	120.8 x 27.0	10/04/2022	DWF Alpha & Bravo ML
11		RAN	Accommodation Jack Up	Petrofac	Ram Jeyaraman ram.jeyaraman@petrofac.com	D5DC3 636015838	74.95m x 83.52m x 10.1m	16/03/2022	OTA ML & Open cut at landfall ML
12		GV Shemarah II	Guard vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	MVRR7 232007650	27.0m x 8.0m	24/04/2022	DWF Alpha & Bravo ML
13		GV Sardonyx	Guard vessel	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	MQUY6 234311000	18.4m x 6.5m	24/04/2022	OTA ML & Open cut at landfall ML
14		GV Ocean Trust	Guard Vessel	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	GFM2 234167000	20.0m x 7.0m	19/04/2022	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	DWF 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	DWF Alpha & Bravo ML
17		Channel Chieftain VI	CTV	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	2GAD4 235095637	19.0mx 7.3m	01/05/2022	OTA ML & Open cut at landfall ML
18		MMS Superior	CTV	Petrofac	Ram Jeyaraman ram.jeyaraman@petrofac.com	MGF09 232024742	25.0mx 10.0mx2.1m	01/05/2022	OTA ML & Open cut at landfall ML
19		GV Ellorah BF12	Guard Vessel	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	2CJ27 235073457	19.0mx 7.0mx4.2m	09/05/2022	OTA ML & Open cut at landfall ML