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

# Seagreen Offshore Wind Farm. Weekly Notice of Operations 05/2022

Issue Date – 31<sup>st</sup> January 2022.

Notice of Operations on Seagreen Offshore Wind Farm.

Work planned for the period 31-01-2022 to 06-02-2022.

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



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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



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### 2. Export cable works.

### 2.1 Export Cable Landfall works.

Works continue on the reinstatement of Carnoustie beach revetement. Works on the three export cable protection pipes continues ahead of export cable installation activities. 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 3 self-submersible cable protection pipes continues ahead of export cable installation activities. Works will be conducted from the DSV Sophie, details below.

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.



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Vessel Name – MPV Sophie	
General Description and Dimensions:	Multi-Purpose vessel. 14.9m x 7.0m x 1.0m
Call Sign:	LK7943
MMSI:	258003500
Direct Bridge/ Masters Number	+47 928 35 222
Onshore Representative:	anders@dykkerteknikk.no; halvor@dykkerteknikk.no





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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 the Export Cables between the Landfall site at Carnoustie and the Offshore Substation Platform within the Seagreen site boundary. Operations will commence with cable pull in at the landfall site and the Offshore Substation Platform utilising the vessel Nexans Aurora. Three cables in total will be installed. The Nexans Aurora will also trench the Export cables to a pre-determined depth. Details of the Nexans Aurora are given below. The Nexans Aurora will be supported by the Acta Orion installation support walk to work Vessel and the Manor Enterprise as the CTV.

Vessel Name – Nexans Aurora		
General Description and Dimensions:	149.9m x 31.0m	
Call Sign:	LALC8	
MMSI:	257682000	
Direct Bridge/ Masters Number	V-Sat +4723411094	
	Per-Kristian Pedersen	
Onshore Representative:	Nexans Norway	
	+47 476 40 021	



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Vessel Name – Acta Orion		
General Description and Dimensions:	107.95m x 16 m	
Call Sign:	PCEN	
MMSI:	244830883	
Direct Bridge/ Masters Number	V-Sat: +31 853 01 21	
Onshore Representative:	Per-Kristian Pedersen, Nexans Norway +47 476 40 021	

### 3. 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 Name – MRV Sartor		
General Description and Dimensions:	83.0m x 18.0m	
Call Sign:	3ESV4	
MMSI:	372633000	
Direct Bridge/ Masters Number	V-Sat +4753007246	
Onshore Representative: Graeme Watters, Seagreen Wind Energy ltd. +44 (0) 7932 229828		



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### 4. 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. Operations will commence with cable pull-in and laying operations between wind turbine generator foundation structures, inter array cables will also be installed into the Offshore Substation Platform. The inter array cables will be trenched by the Seaway Aimery also.

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

Vessel Name – Siem Day	
General Description and Dimensions: 120.8m x 25.9m x 6.1m	
Call Sign:	LAFB8
MMSI:	257651000
Direct Bridge/ Masters Number	+47 919 04982
Onshore Representative: George Cooper Seaway 7 +44 (0) 7545 642881	

**Seaway Aimery** – This vessel will lay the inter array cable between adjacent wind turbine jacket foundations and where required the offshore sub-station platform, it will also trench the inter array cables to a pre-determined depth.

See details below.



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Vessel Name – Seaway Aimery	
General Description and Dimensions: 95.3m x 21.5m x 7.2m	
Call Sign:	MDBO2
MMSI:	232015468
Direct Bridge/ Masters Number	V-Sat +87 07734 090018
	George Cooper
Onshore Representative:	Seaway 7
	+44 (0) 7545 642881



### 4.1 Foundation Grout Installation

Seaway 7 will install grout to the Wind Turbine Generator foundation suction caisson voids within the Seagreen site boundary. The supply vessel EDT Hercules will transport the grouting mix to the Seagreen site. The vessel will set up at the required foundation location and connect a grout hose to the suction caisson. The grouting mixture will then be injected into the caisson void. A remotely operated vehicle (ROV) will also be utilised in this operation. An example of a wind turbine generator foundation and suction caisson is shown below. Details of the grout installation vessel EDT Hercules are also shown below.



WTG foundation structure

Foundation caisson



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Vessel Name – EDT Hercules		
General Description and Dimensions: 88.0m x 18.0m x 5.5m		
Call Sign:	5BAM4	
MMSI:	210776000	
Satellite communications details	V-Sat +44 2037 699906	
Onshore Representative:	resentative: George Cooper (Seaway 7) +44 (0) 7545 642881	



### 4.2 Scour Protection Installation

Seaway 7 will install seabed scour protection rock to the wind turbine generator suction caisson foundation structures within the Seagreen site boundary. The Flexible Fall Pipe Vessel (FFPV) Bravenes will transport the scour protection rock to the Seagreen site and install it on the seabed using its 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. Details of the Bravenes are shown below.

Vessel Name – FFPV Bravenes		
General Description and Dimensions:	154.0 m x 28.0 m x 6.0 m	
Call Sign:	PDCF	
MMSI:	244860916	
Satellite communications details	+47 233 98 649	
Onshore Representative:	George Cooper (Seaway 7) +44 (0) 7545 642881	



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### 5. Wind Turbine Generator Installation & Commissioning.

On behalf of Seagreen Wind Energy Ltd, MHI Vestas Offshore Wind have commenced the installation and commissioning of 114 wind turbine generators.

There shall be three vessels utilised during this operation. The Jack up Vessel **Wind Osprey** will be the main installation vessel. Wind Osprey will transport the WTG components to site, jack up to the required height next to the foundation structure and install the WTG 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.

A Crew Transfer Vessel, **HST Harri** will support the above two vessels during installation and commissioning activities.

Vessel Name – Wind Osprey		
General Description and Dimensions:	JUV 161.3m LOA, 49.03m beam, 5.6m draught	
Call Sign:	5BUF3	
MMSI:	210286000	
Satellite communications details	V-Sat Number - +44 203 005 68630 / +44 203 005 68631	
Direct Bridge/ Masters Number	+45 5167 1390	
Onshore Representative:	Morten Guldberg – Installation Manager +45 314 314 63	
Unshore representative.		

Wind Turbine Generator installation activities shall continue until late 2022.



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Vessel Name – Acta Centaurus						
General Description and Dimensions:	SOV DP 2 Vessel 93.4m LOA, 18.0m beam, 5.6m draught					
Call Sign:	РВОІ					
MMSI: 244341000						
Satellite communications details	V-Sat Number - +31 (0) 85 30 12 161					
Direct Bridge/ Masters Number	Mobile - +31 (0) 6 139 733 63					
Offshore Fisheries Liaison Officer	Alan Addison - +44 (0) 7734 033742					
Onshore Representative:	Paul Grant – Commissioning Manager +44 7587630374					



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

There are now multiple CTV's on the project, please see details below.

Vessel Name – HST Harri							
General Description and Dimensions:	CTV- 27.0m LOA, 11.0m beam, 2.4m draught						
Call Sign:	MGBN4						
MMSI:	23202433						
Direct Bridge/ Masters Number	+441792272235. euan@highspeedtransfers.com						
Onshore Representative:	Paul Grant – Vestas Commissioning Manager +44 7587630374						



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Vessel Name – Wem 3					
General Description and Dimensions:	CTV- 26.0m LOA, 7.0m beam, 1.9m draught				
Call Sign:	MIZL8				
MMSI:	232035320				
Direct Bridge/ Masters Number	+44 191 622 0712				
Onshore Representative:	George Cooper (Seaway 7), +44 (0) 7545 642881				



Vessel Name – Manor Enterprise					
General Description and Dimensions:	CTV- 21.0m LOA, 6.0m beam, 1.8m draught				
Call Sign:	2FJE2				
MMSI:	235091722				
Direct Bridge/ Masters Number	+44(0)7716463286				
	Per-Kristian Pedersen, Nexans Norway				
Onshore Representative:	+47 476 40 021				





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Vessel Name – Seacat Volunteer						
General Description and Dimensions:	CTV- 25.1m LOA, 8.0m beam, 1.4m draught					
Call Sign:	2HCP6					
MMSI:	235102528					
Direct Bridge/ Masters Number	+44 (0) 1983 410 694					
Onshore Representative:	Graeme Watters, Seagreen Wind Energy ltd. +44 (0) 7932 229828					



# 7. Construction progress update.





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### 8. Guard Vessel Deployment.

In line with foundation installation activities commencing Seaway 7 has deployed a site Guard Vessel. The Guard vessel will make six hourly VHF radio broadcasts 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 Vessel Evening Star PD1022 is currently on station.

Vessel Name – GV Evening Star PD1022					
General Description and Dimensions:	Fishing vessel. 27.0m x 8.0m x 2.3m				
Call Sign:	MNEP3				
MMSI:	235006716				
Direct Bridge/ Masters Number	+44 1779401099 eveningstar1022@yahoo.co.uk				
Onshore Representative:	Alastair Macdonald <u>Alastair.Macdonald@Subsea7.com</u>				



### 9.1. Export Cable Guard Vessels

In line with the Export cable installation works commencing there will be 3 additional Guard vessels deployed, these vessels will be located along the export cable route. GV Fisher Boys will be located Nearshore, GV Shemarah II will be located centrally and GV Ocean Quest will be located offshore.



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Vessel Name – Fisher Boys FR54					
General Description and Dimensions:	Fishing vessel. 20.0m x 7.0m x 2.42m				
Call Sign:	MWHY7				
MMSI:	234750000				
Direct Bridge/ Masters Number	+44 70801 536983 robertfr54@hotmail.co.uk				
Onshore Representative:	Alastair Macdonald <u>Alastair.Macdonald@Subsea7.com</u>				



Vessel Name – GV Ocean Quest FR 375					
General Description and Dimensions:	Fishing vessel. 21.23m x 6.52m x 2.39m				
Call Sign:	MSBS6				
MMSI:	232004618				
Direct Bridge/ Masters Number	+44 7398 215602 oceanquestfr375@hotmail.co.uk				
Onshore Representative:	Alastair Macdonald <u>Alastair.Macdonald@Subsea7.com</u>				





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### 9. 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.

### 10. 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.

### 11. 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

### 12. 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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### 13. Seagreen weekly vessel report.

Seag Vess	reen Offshore Windfarm els & Operators					Soa			Insert date 31-01-22
Refer Cond and E and 3 ML)	rence to Marine Licence litions 3.1.2 (OWF Alpha Bravo ML), 3.1.2 (OTA ML) 5.1.2 (Open Cut at Landfall		Vessel Data Ma	atrix OWF/OTA/Oper	ı Cut at Landfall	Sea	<b>Green</b> WING ENERGY		
No R	Vessel Picture	Vessel Name / Flag	Type / Function	Operator	Contact / contact details	Call sign / MMSI / IMO 👻	LOA (m) Beam (m) Draft (***)	Date on Site	Marine Licence(s) applicable
1		GV Evening Star	Guard vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	MNEP3 235006716	27m x 8m	14/01/2022	OWF Alpha & Bravo ML
2		Seacat Volunteer	Crew Transfer vessel	SWEL	Graeme Watters Lead Marine Coordinator +44 (0) 7932 229828	2HCP6 235102528	25.1mx 8m	15/10/2021	OWF Alpha & Bravo ML
3	-	Acta Centaurus	Multi Purpose Offshore Vessel	Vestas	Paul Grant Vestas +44 7587630374	PBOI 244341000	63.4 x 18m	06/11/2021	OWF Alpha & Bravo ML
4		HST Harri	сти	Vestas	Paul Grant Vestas +44 7587630374	MGBN4 232024313	27 x 11m	06/11/2021	OWF Alpha & Bravo ML
5		Wind Osprey	Jack-up Vessel	Vestas	Morton Guldberg Vestas +45 314 314 63	5BUF3 210286000	161.3 x 49.03m	06/11/2021	OWF Alpha & Bravo ML
6	4	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

7		Sartor	MPV	SSE	Graeme Watters Lead Marine Coordinator +44 (0) 7932 229828	3ESV4 372633000	82.5 x 18.83	23/12/2021	OWF Alpha & Bravo ML
8		Siem Day	Installation Support Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	LAFB8 257651000	120.8x25.9x6.1	13/01/2022	OWF Alpha & Bravo ML
9	the alast	FFPV Bravenes	Scour Protection Vessele	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	PDCF 244860916	154m x 28m	07/01/2022	OWF Alpha & Bravo ML
10	1	Seaway Aimery	Cable Installation Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	MDBO2 232015468	95m x 28m x 7m	13/01/2022	OWF Alpha & Bravo ML
11		Nexans Aurora	Cable Installation Vessel	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	LALC8 257682000	156.4 x 31.15 m	21/01/2022	OWF Alpha & Bravo ML
12		EDT Hercules	Grout Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	5BAM4 210776000	88.0m x 18.0m	18/01/2022	OWF Alpha & Bravo ML



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13		GV Fisher Boys FR54	Guard Vessel	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	MWHY7 234750000	20.0m x 7.0m	18/01/2022	OWF Alpha & Bravo ML
14		GV Ocean Quest	Guard Vessel	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	MSBS6 232004618	21.23m x 6.52m	18/01/2022	OWF Alpha & Bravo ML
15	- Aller and a state	Manor Enterprise	сти	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	2FJE2 235091722	21.0m x 6.0m	28/01/2022	OWF Alpha & Bravo ML
16		Wem 3	стv	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	MIZL8 232035320	26.0m x 7.0m	30/01/2022	OWF Alpha & Bravo ML
17		Acta Orion	Installation Support Vessel	Nexans Norway AS	Per-Kristian Pederson Nexans Norway +47 476 40 021	PCEN 244830883	107.95 x 16 m	31/01/2022	OWF Alpha & Bravo ML
18		Seaway Phoenix	Cable Installation Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	2EEZ6 235084529	129.9m x 27.8m	06/02/2022	OWF Alpha & Bravo ML