

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

Seagreen Offshore Wind Farm.

Weekly Notice of Operations 09/2023

Issue Date – 27th February 2023.

Notice of Operations on Seagreen Offshore Wind Farm.

Work planned for the period 27-02-2023 to 05-03-2023.

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.

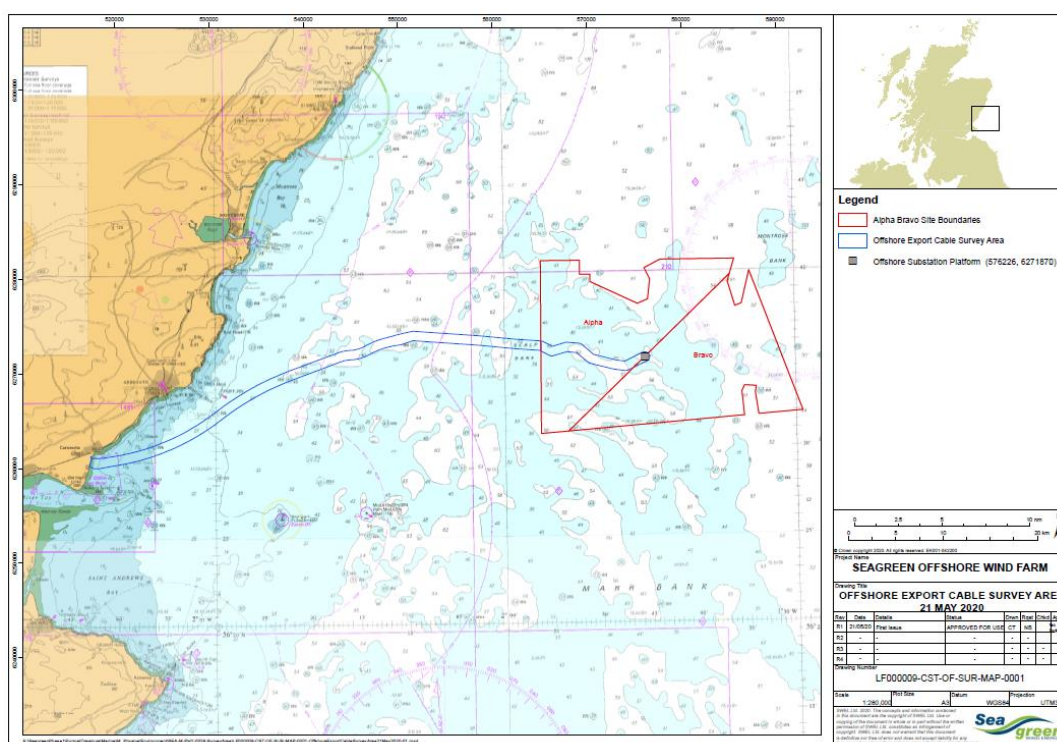


Fig 1 – Seagreen offshore wind farm location and export cable corridor.


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, O&M Building, Windy Waves House, South Quay Ferryden, Montrose, Angus DD10 9SL


2. Site Demarcation Buoyage Maintenance.

On behalf of Seagreen Wind Energy Ltd, Seaway 7 will carry out maintenance on the site demarcation buoyage and the three wave data buoys within the site boundary. Maintenance will be carried out over the coming days from the Kingdom of Fife, vessel details below.

Vessel – Kingdom of Fife	Contact Details	
	Call Sign	2BKR2
	MMSI	235066953
	Length	61.2m
	Beam	13.8m
	Draft	4.5m
	Vessel Contact	Onshore Rep: George Cooper George.Cooper@seaway7.com

3. Foundation 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. 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 – FFPV Bravenes	Contact Details	
	Call Sign	PDCF
	MMSI	244860916
	Length	154.0m
	Beam	28.0m
	Draft	9.0m
	Vessel Contact	Onshore Rep: George Cooper George.Cooper@seaway7.com

4. Export cable works.

Survey operations of the inter-tidal area at Carnoustie have been completed

5 temporary anchors and 2 rock-nets remain on the seabed to be used during nearshore export cable works. The coordinates and locations of the anchors are shown below in fig 3 and table 1.



Fig 3 – Anchor & Rock-net locations

Ref	Lat (ddm)	Long (ddm)
Anchor 1	56° 29.469' N	002° 42.782' W
Anchor 2	56° 29.391' N	002° 42.820' W
Anchor 3	56° 29.468' N	002° 42.841' W
Anchor 5	56° 29.480' N	002° 42.651' W
Anchor 6	56° 29.396' N	002° 42.740' W
Rocknet 1	56° 29.630' N	002° 41.609' W
Rocknet 4	56° 29.551' N	002° 41.785' W

Table 1 – Temporary anchor/rock net coordinates.


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 Day will support the cable laying vessel Seaway Aimery. The crew transfer vessels Farra Lark and Manor Vulcan will support Siem Day. Already


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

Siem Day/Olympic Orion – These vessels will act as Installation Support vessels. Cable installation technicians will be deployed to the wind turbine generator foundation structures and sub-station platform using the vessels' motion compensated gangway systems.


Vessel – Siem Day	Contact Details	
	Call Sign	5BXQ3
	MMSI	210708000
	Length	121.0m
	Beam	22m
	Draft	6.5m
	Vessel Contact	George Cooper – Seaway 7 07545 642881

Vessel – Olympic Orion	Contact Details	
	Call Sign	LDEA3
	MMSI	257786000
	Length	93.8m
	Beam	20.0m
	Draft	5.8m
	Vessel Contact	George Cooper – Seaway 7 07545 642881

Seaway Aimery – Seaway Aimery 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. Surface laid installed inter-array cable details including coordinates of installed foundation structures can be found in Section 8.

Vessel – Seaway Aimery	Contact Details	
	Call Sign	MDBO2
	MMSI	232015468
	Length	95.0m
	Beam	21.0m
	Draft	6.0m
	Vessel Contact	George Cooper – Seaway 7


Go Electra – This vessel will conduct potential unexploded ordnance target investigation on alternative inter-array cable routes.


Vessel – Go Electra	Contact Details	
	Call Sign	V7ZR6
	MMSI	538005197
	Length	79.7m
	Beam	16.4m
	Draft	5.8m

6. Wind Turbine Generator Commissioning.

On behalf of Seagreen Wind Energy Ltd, MHI Vestas Offshore Wind continue commissioning of wind turbine generators. There shall be five vessels utilised during this operation.


The Service Operation Vessels (SOV) Acta Centaurus and Norside Cetus will provide accommodation for WTG commissioning technicians. Personnel will utilise walk to work gangway systems to access the WTG structures for commissioning activities. The crew transfer vessels HST Harri and HST Grace will support the SOV's. A table of installed WTG's and their coordinates is shown below in Section 9.


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


Vessel – Norside Cetus	Contact Details	
	Call Sign	LNCQ3
	MMSI	257931000
	Length	83.4m
	Beam	18.0m
	Draft	5.6m
	Vessel Contact	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 – Farra Lark	Contact Details	
	Call Sign	MKPT9
	MMSI	232039877
	Length	27.0m
	Beam	9.0m
	Draft	1.7m
	Vessel Contact	Onshore Rep: George Cooper George.Cooper@seaway7.com

Vessel – M06	Contact Details	
	Call Sign	MIQ02
	MMSI	232033197
	Length	26.0m
	Beam	11.0m
	Draft	2.7m
	Vessel Contact	Graeme.watters@sse.com

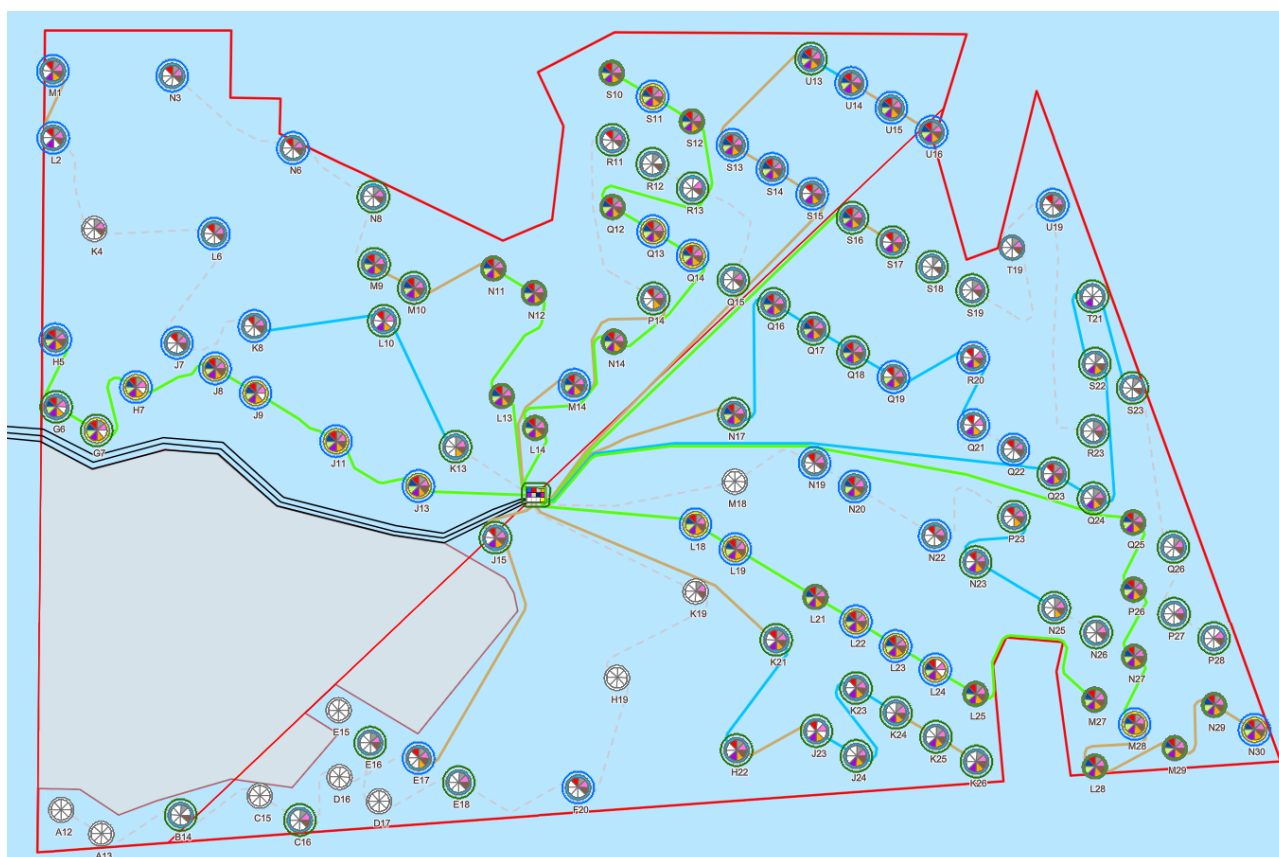
Vessel – HST Harri	Contact Details	
	Call Sign	MGBN4
	MMSI	23202433
	Length	27.0m
	Beam	11.0m
	Draft	2.4m
	Vessel Contact	Onshore Rep: Paul Grant – 07587 630374

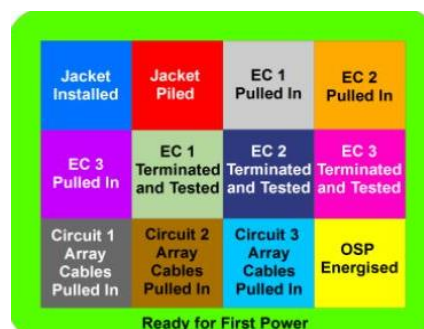
Vessel – HST Grace	Contact Details	
	Call Sign	2GAS7
	MMSI	235095835
	Length	19.0m
	Beam	6.0m
	Draft	1.5m
	Vessel Contact	Onshore Rep: Paul Grant – 07587 630374

Vessel – Manor Vulcan		Contact Details	
	Call Sign	MLRK6	
	MMSI	232042488	
	Length	28.0m	
	Beam	9.0m	
	Draft	2.4m	
Vessel Contact	George Cooper Seaway 7 +44 (0) 7545 642881		

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

Installed WTG's highlighted in Yellow

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
L02	56° 39.367'N 1° 56.036'W	N17	56° 36.060'N 1° 41.215'W
L13	56° 36.279'N 1° 46.272'W	S16	56° 38.408'N 1° 38.643'W
L14	56° 35.899'N 1° 45.551'W	S17	56° 38.118'N 1° 37.771'W
L18	56° 34.740'N 1° 42.063'W	P14	56° 37.444'N 1° 42.971'W
L19	56° 34.450'N 1° 41.191'W	P26	56° 33.958'N 1° 32.515'W
L21	56° 33.869'N 1° 39.449'W	Q12	56° 38.539'N 1° 43.857'W
L22	56° 33.579'N 1° 38.578'W	Q13	56° 38.249'N 1° 42.984'W
L23	56° 33.289'N 1° 37.708'W	Q14	56° 37.959'N 1° 42.111'W
M10	56° 37.572'N 1° 48.183'W	Q17	56° 37.089'N 1° 39.494'W
M14	56° 36.414'N 1° 44.691'W	Q18	56° 37.799'N 1° 38.621'W
M28	56° 32.349'N 1° 32.498'W	Q19	56° 36.508'N 1° 37.750'W
M29	56° 32.057'N 1° 31.628'W	Q21	56° 35.927'N 1° 36.007'W
N11	56° 37.798'N 1° 46.450'W	Q25	56° 34.763'N 1° 32.524'W
L28	56° 31.835' N 1° 33.358' W	S11	56° 39.859'N 1° 43.009'W

F20	56° 31.585' N 1° 44.614' W	S12	56° 39.569' N 1° 42.135' W
N30	56° 32.280' N 1° 29.898' W	P13	56° 37.734' N 1° 43.844' W
L25	56° 32.707' N 1° 35.967' W	N29	56° 32.571' N 1° 30.767' W
H22	56° 32.035' N 1° 41.156' W	N27	56° 33.154' N 1° 32.506' W
H07	56° 36.375' N 1° 54.237' W	S10	56° 40.149' N 1° 43.882' W
U16	56° 39.437' N 1° 36.919' W	K21	56° 33.355' N 1° 40.309' W
U19	56° 38.565' N 1° 34.302' W	K13	56° 35.673' N 1° 41.156' W
L24	56° 32.998' N 1° 36.837' W	Q23	56° 35.345' N 1° 34.265' W
S14	56° 38.989' N 1° 40.389' W	R20	56° 36.732' N 1° 36.017' W
S15	56° 38.699' N 1° 39.516' W	M27	56° 32.640' N 1° 33.367' W
S18	56° 37.827' N 1° 36.899' W	J23	56° 32.260' N 1° 39.427' W
S19	56° 37.537' N 1° 36.027' W	J13	56° 35.197' N 1° 48.075' W
J11	56° 35.736' N 1° 49.886' W	L10	56° 37.174' N 1° 48.846' W
E17	56° 31.938' N 1° 48.084' W	K08	56° 37.119' N 1° 51.648' W
J08	56° 36.603' N 1° 52.506' W	G06	56° 36.147' N 1° 55.968' W
G07	56° 35.859' N 1° 55.095' W	H05	56° 36.952' N 1° 55.985' W
E16	56° 32.125' N 1° 49.125' W	N19	56° 35.479' N 1° 39.471' W
L06	56° 38.212' N 1° 52.538' W	M09	56° 37.861' N 1° 49.057' W
M01	56° 40.172' N 1° 56.053' W	J07	56° 36.915' N 1° 53.355' W
Q16	56° 37.379' N 1° 40.366' W	N06	56° 39.244' N 1° 50.820' W
N03	56° 40.111' N 1° 53.444' W	J09	56° 36.314' N 1° 51.633' W
Q22	56° 35.636' N 1° 35.136' W	S13	56° 39.279' N 1° 41.262' W
U13	56° 40.308' N 1° 39.538' W	U14	56° 40.018' N 1° 38.665' W
U15	56° 39.728' N 1° 37.792' W	K23	56° 32.774' N 1° 38.567' W
T19	56° 38.051' N 1° 35.164' W	Q24	56° 35.054' N 1° 33.394' W
N20	56° 35.189' N 1° 38.600' W	R11	56° 39.344' N 1° 43.870' W

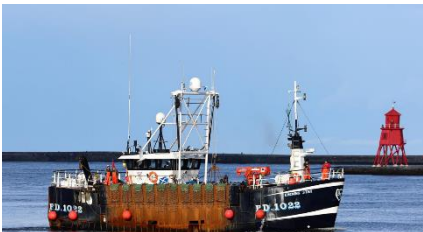
P23	56° 34.831' N 1° 35.126' W	N22	56° 34.608' N 1° 36.858' W
J24	56° 31.969' N 1° 38.556' W	N23	56° 34.294' N 1° 35.963' W
K25	56° 32.193' N 1° 36.827' W	E18	56° 31.649' N 1° 47.213' W
N25	56° 33.736' N 1° 34.246' W	K24	56° 32.484' N 1° 37.697' W
N26	56° 33.445' N 1° 33.330' W	K26	56° 31.902' N 1° 35.957' W
S22	56° 36.664' N 1° 33.366' W	T21	56° 37.469' N 1° 33.421' W
S23	56° 36.373' N 1° 32.541' W	P27	56° 33.67' N 001° 31.65' W
P28	56° 33.38' N 001° 30.78' W	R12	56° 39.054' N 1° 42.996' W
R13	56° 38.764' N 1° 42.123' W	C16	56° 31.196' N 1° 50.668' W
B14	56° 31.257' N 1° 53.267' W	Q15	56° 37.669' N 1° 41.238' W
R23	56° 35.859' N 1° 33.403' W	B14	56° 31.257' N 1° 53.267' W


Surface Laid Inter Array Cables

Array Cable	Cable Status	Array Cable	Cable Status
K21 – H22	Surface Laid.	Q21 – Q22	Surface Laid
OSP – K13	Surface Laid	Q17 – Q18	Surface Laid
Q16 – Q17	Surface Laid	Q19 – R20	Surface Laid
N17 – Q16	Surface Laid	Q18 – Q19	Surface Laid
R20 – Q21	Surface Laid	K13 – L10	Surface Laid
P23 – N23	Surface Laid	N23 – N25	Surface Laid
L10 – K08	Surface Laid	K23 – J24	Surface Laid
K24 – K23	Surface Laid	J23 – J24	Surface Laid
K08 – L10	Surface Laid	T21 – S22	Surface Laid
Q24 – S22	Surface Laid		

9. Guard Vessel Deployment.


On behalf of Seagreen Wind Energy, Seaway 7 have deployed two site 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. Vessel details below.

Vessel – Evening Star	Contact Details	
	Call Sign	MNEP3
	MMSI	235006716
	Length	21.3m
	Beam	6.9m
	Draft	5.0m

Vessel – Liberty	Contact Details	
	Call Sign	MKUX3
	MMSI	235001680
	Length	21.0m
	Beam	7m
	Draft	3.2m

10. Operations & Maintenance

Operations & Maintenance activities commenced last week as a number of wind turbine generators are fully commissioned. Technicians shall be deployed to service the WTG's and carry out any required trouble-shooting tasks. The Operations & Maintenance team shall be deployed to site aboard the service operations vessel Normand Fortress. The vessel shall remain on site with the technicians being deployed to the assets by motion compensated gangway. The port of operations shall be Montrose where the vessel shall crew change fortnightly, vessel details below.

Vessel – Normand Fortress	Contact Details	
	Call Sign	LIKW3
	MMSI	258537000
	Length	92.9m
	Beam	19.7m
	Draft	6.0m

11. 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.

12. 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.

13. 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](#)

14. 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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15. 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) T (m)	Date on Site	Marine Licence(s) applicable	
	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	
	HST Harri	Crew Transfer vessel	Vestas	Paul Grant Vestas +44 7587630374	MGBN4 232024313	27 x 11m	06/11/2021	OWF Alpha & Bravo ML	
	HST Grace	Crew Transfer vessel	Vestas	Paul Grant Vestas +44 7587630374	26AS7 235095835	19m x 6m	12.01.23	OWF Alpha & Bravo ML	
	FFPV Braveness	Rock Placement Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	PDCF 244860916	154m x 28m		OWF Alpha & Bravo ML	
	Seaway Aimery	Cable Laying Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	MDBO2 232015468	95m x 23m	28/01/2023	OWF Alpha & Bravo ML	
	Siem Day	Installation Support Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	5BXQ3 210708000	121.0 x 22.0	16/04/2022	OWF Alpha & Bravo ML	
	Manor Vulcan	Crew Transfer vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	MLRK6 232042488	28.0m x 9.0m x 2.4m	16.01.23	OWF Alpha & Bravo ML	
	Farra Lark	Crew Transfer vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	MMAC6 232043235	27.0m x 10.0m	02/09/2022	OWF Alpha & Bravo ML	
	MD6	Crew Transfer vessel	Petrofac	Graeme Walters Lead Marine Coordinator +44 (0) 7932 229828	MIQ02 232033197	26m x 11m	30/10/2022	OWF Alpha & Bravo ML	
	Normand Fortress	Service Operations Vessel	Vestas Operations & Maintenance	Graeme Walters Lead Marine Coordinator +44 (0) 7932 229828	LIKW3 258537000	92.9m x 19.7m	27.09.22	OWF Alpha & Bravo ML	
	Olympic Orion	Installation Support Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	LDEA3 257786000	93.8m x 20.0m x 5.8m	13.01.23	OWF Alpha & Bravo ML	
	GV Liberty	Guard Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	MKUX3 235001680	21.0m x 7.0m	23.02.23	OWF Alpha & Bravo ML	
	GV Evening Star	Guard Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	MNEP3 235006716	21.0m x 7.0m	21.02.23	OWF Alpha & Bravo ML	
	Kingdom of Fife	Multi Purpose Offshore Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	2BKR2 235066953	61.2m x 13.8m	21.02.23	OWF Alpha & Bravo ML	
	Norside Cetus	Multi Purpose Offshore Vessel	Vestas	Paul Grant Vestas +44 7587630374	LNCQ3 257931000	83.4m x 18.0m	22.01.23	OWF Alpha & Bravo ML	
	Go Electra	Multi Purpose Offshore Vessel	Seaway7	George Cooper Seaway 7 +44 (0) 7545 642881	V7ZR6 538005197	79.0m x 16.0m		OWF Alpha & Bravo ML	



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Rev: 111

Page 17 of 25