Date of issue:	20/08/2021
Period covered:	11/08/2021 – 25/08/2021
Notice number:	054
Author:	Claire Gilchrist

Construction of the Neart na Gaoithe (NnG) Offshore Wind Farm is ongoing. This notice is updated weekly giving information on the progress and resources involved in the offshore works. The intention is to give an overview of activities and vessels involved. Questions regarding the operations are welcomed.

Current works include;

1. Guard vessel duties (Section 3.1)
2. Pile Installation (Section 3.2)
3. Export Cable Burial Works (Section 3.3)
4. Offshore Seabed Prep (Section 3.4)
5. Inter-Array Cable Pre-Lay Trenching Works (Section 3.5)

1 Project Location

The following tables and figures illustrate the boundaries, safety zones and exclusions applicable to the Neart na Gaoithe wind farm area and export cable corridor.

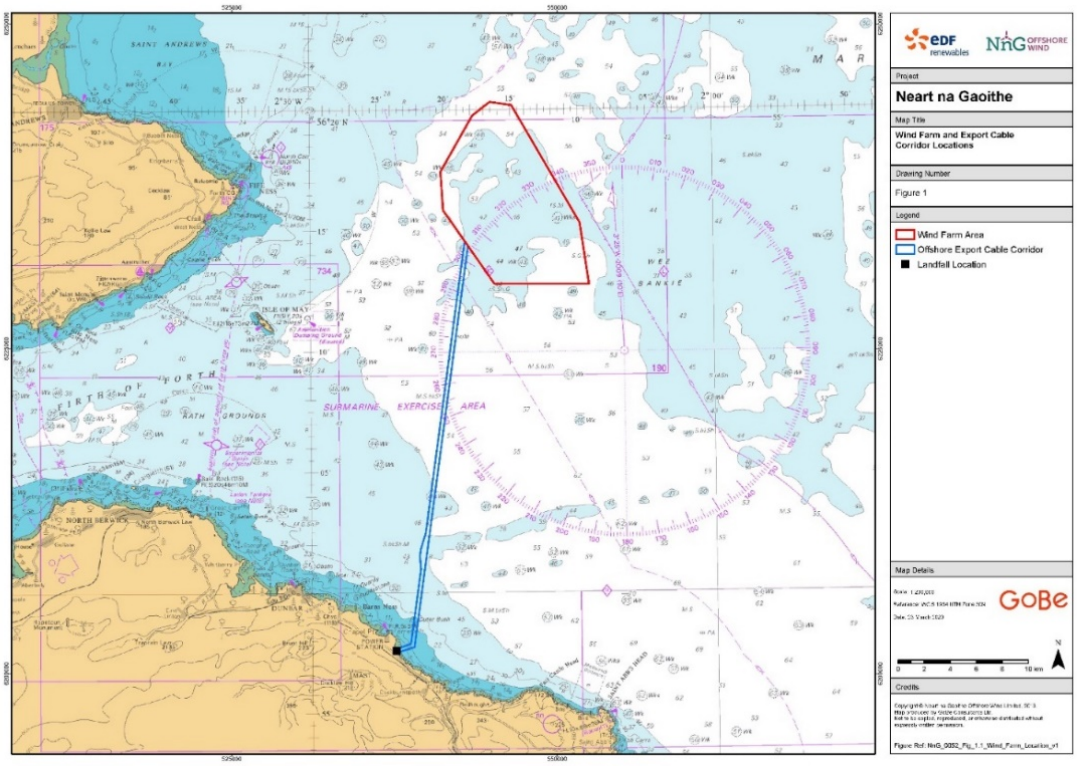

Figure 1 - Wind Farm Area and Export Cable

Table 1 - Wind Farm Area and Export Cable Coordinates

Wind Farm Area Coordinates (WGS84)	
LONGITUDE (DDM)	LATITUDE (DDM)
002° 09.898' W	56° 15.271' N
002° 09.255' W	56° 12.721' N
002° 13.998' W	56° 12.752' N
002° 16.293' W	56° 12.766' N
002° 19.628' W	56° 15.479' N
002° 20.055' W	56° 15.827' N
002° 20.232' W	56° 17.430' N
002° 17.826' W	56° 19.752' N
002° 16.518' W	56° 20.312' N
002° 14.910' W	56° 20.171' N

Export Cable Corridor Coordinates (WGS84)	
LONGITUDE (DDM)	LATITUDE (DDM)
2° 22.472' W	55° 57.734' N
2° 23.539' W	55° 57.541' N
2° 23.802' W	55° 57.584' N
2° 23.820' W	55° 57.609' N
2° 23.636' W	55° 57.693' N
2° 22.729' W	55° 57.866' N
2° 21.938' W	56° 00.990' N
2° 21.951' W	56° 01.007' N
2° 22.005' W	56° 01.449' N
2° 22.004' W	56° 01.552' N
2° 21.932' W	56° 01.795' N
2° 21.563' W	56° 02.468' N
2° 18.479' W	56° 14.546' N
2° 18.237' W	56° 14.349' N

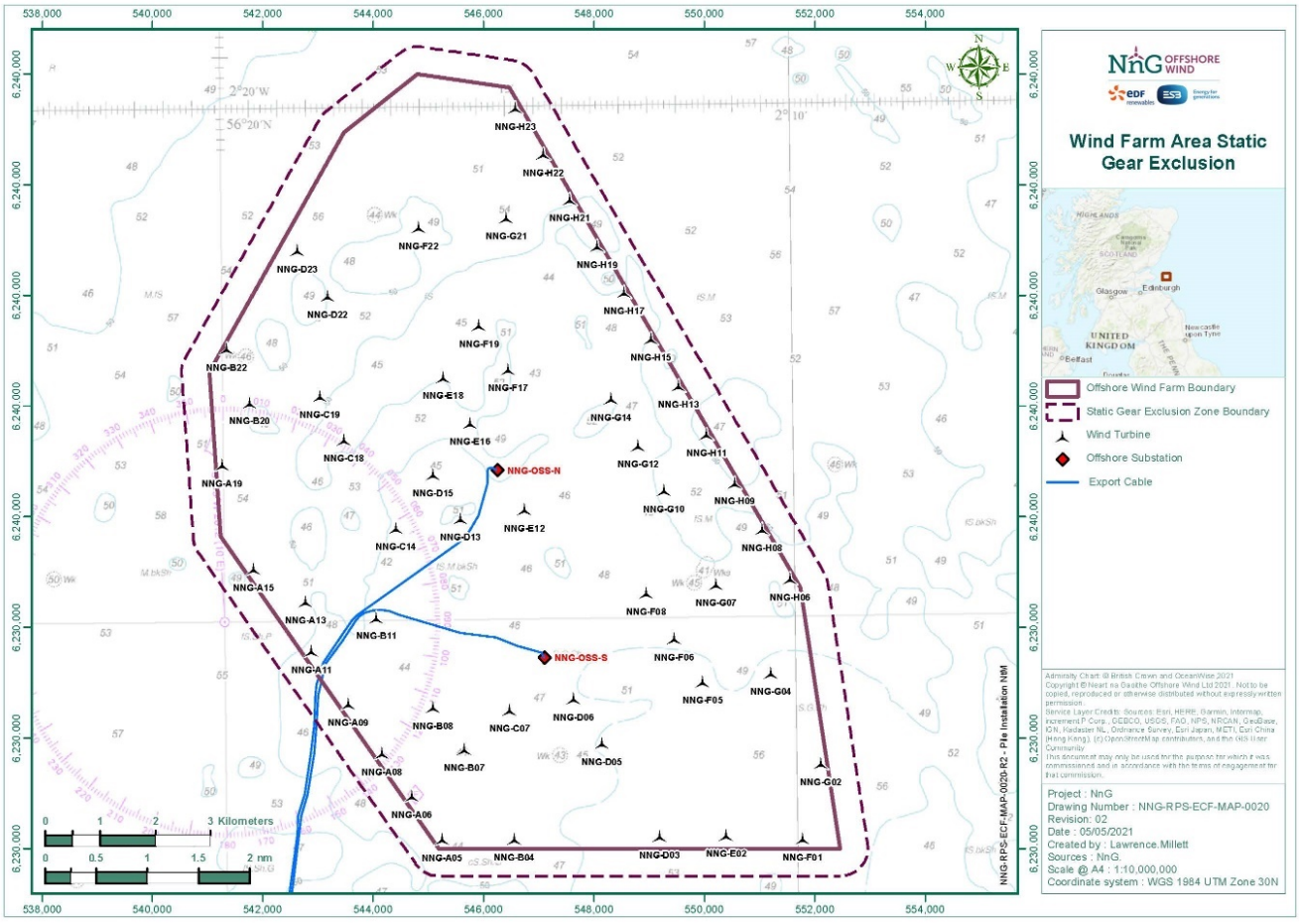

Figure 2 - Wind Farm Area Static Fishing Gear Exclusion

Table 2 - Wind Farm Area Static Fishing Gear Exclusion Coordinates

LONGITUDE (DDM)	LATITUDE (DDM)
002° 20.566' W	56° 15.680' N
002° 20.849' W	56° 17.468' N
002° 18.242' W	56° 19.938' N
002° 16.611' W	56° 20.613' N
002° 14.363' W	56° 20.392' N
002° 09.300' W	56° 15.334' N
002° 08.661' W	56° 12.651' N
002° 09.058' W	56° 12.405' N
002° 16.505' W	56° 12.410' N

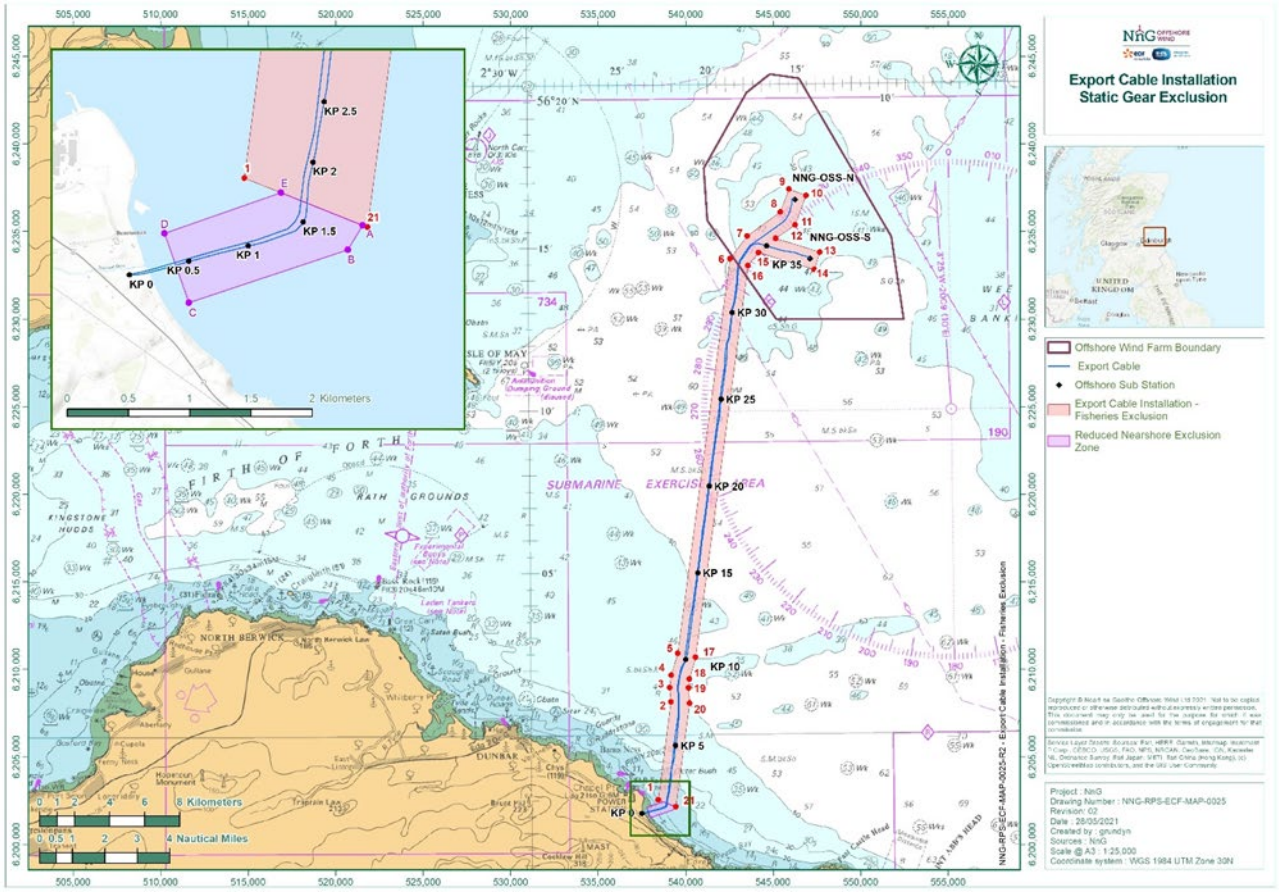

Figure 3 - Export Cable Static Gear Export Cable Exclusion Zone

Table 3 - Export Cable Static Gear Exclusion Zone Coordinates

ID	Export Cable Static Gear Export Cable Exclusion Zone Coordinates (WGS84)	
	LONGITUDE (DDM)	LATITUDE (DDM)
1	2° 23.058' W	55° 58.009' N
2	2° 22.314' W	56° 01.014' N
3	2° 22.368' W	56° 01.454' N

ID	Export Cable Static Gear Export Cable Exclusion Zone Coordinates (WGS84)	
	LONGITUDE (DDM)	LATITUDE (DDM)
4	2° 22.287' W	56° 01.836' N
5	2° 21.917' W	56° 02.512' N
6	2° 18.822' W	56° 14.640' N
7	2° 17.858' W	56° 15.328' N
8	2° 16.012' W	56° 16.061' N
9	2° 15.514' W	56° 16.760' N
10	2° 14.570' W	56° 16.557' N
11	2° 15.194' W	56° 15.662' N
12	2° 16.276' W	56° 15.248' N
13	2° 13.848' W	56° 14.814' N
14	2° 14.159' W	56° 14.275' N
15	2° 17.233' W	56° 14.818' N
16	2° 17.835' W	56° 14.420' N
17	2° 20.930' W	56° 02.383' N
18	2° 21.280' W	56° 01.717' N
19	2° 21.339' W	56° 01.440' N
20	2° 21.287' W	56° 00.971' N
21	2° 22.095' W	55° 57.787' N
ID	**Nearshore Exclusion Zone Coordinates (WGS84)**	
A	2° 22.132' W	55° 57.796' N
B	2° 22.251' W	55° 57.689' N
C	2° 23.501' W	55° 57.463' N
D	2° 23.687' W	55° 57.769' N
E	2° 22.772' W	55° 57.943' N

2 Completed Operations

2.1 Drilling and Casing Installation

Casing installation operations have been successfully completed at the locations listed in Table 4 (shaded Grey). The co-ordinates of each casing installed, and the casing stick-up (above seabed) can be found at: https://nngoffshorewind.info/

Table 4 - Coordinates of NnG Turbine Locations and Offshore Substation Platforms. Anticipated locations of work (green highlight) – complete locations are shaded (grey)

ID	LONGITUDE (DD.MM.MMM)	LATITUDE (DD.MM.MMM)	TURBINE ID	LONGITUDE (DD.MM.MMM)	LATITUDE (DD.MM.MMM)
NNG-A13	002° 18.580’ W	56° 15.153’ N	**NNG-F22**	002° 16.536’ W	56° 18.785’ N
NNG-A11	002° 18.489’ W	56° 14.668’ N	**NNG-F19**	002° 15.487’ W	56° 17.828’ N
NNG-A09	002° 17.845’ W	56° 14.153’ N	**NNG-F17**	002° 14.978’ W	56° 17.394’ N
NNG-A08	002° 17.267’ W	56° 13.665’ N	**NNG-F08**	002° 12.603’ W	56° 15.198’ N
NNG-A06	002° 16.755’ W	56° 13.248’ N	**NNG-F06**	002° 12.129’ W	56° 14.751’ N

ID	LONGITUDE (DD.MM.MMM)	LATITUDE (DD.MM.MMM)	TURBINE ID	LONGITUDE (DD.MM.MMM)	LATITUDE (DD.MM.MMM)
NNG-A05	002° 16.231' W	56° 12.822' N	**NNG-F05**	002° 11.632' W	56° 14.330' N
NNG-B22	002° 19.921' W	56° 17.623' N	**NNG-G21**	002° 14.988' W	56° 18.873' N
NNG-B20	002° 19.521' W	56° 17.097' N	**NNG-G14**	002° 13.181' W	56° 17.095' N
NNG-B11	002° 17.341' W	56° 14.989' N	**NNG-G12**	002° 12.715' W	56° 16.640' N
NNG-B08	002° 16.365' W	56° 14.109' N	**NNG-G10**	002° 12.270' W	56° 16.197' N
NNG-B07	002° 15.822' W	56° 13.695' N	**NNG-G07**	002° 11.379' W	56° 15.279' N
NNG-B04	002° 14.964' W	56° 12.817' N	**NNG-G04**	002° 10.435' W	56° 14.405' N
NNG-C19	002° 18.293' W	56° 17.155' N	**NNG-G02**	002° 09.572' W	56° 13.520' N
NNG-C18	002° 17.882' W	56° 16.725' N	**NNG-H23**	002° 14.806' W	56° 19.943' N
NNG-C14	002° 16.984' W	56° 15.858' N	**NNG-H22**	002° 14.322' W	56° 19.488' N
NNG-C07	002° 15.017' W	56° 14.076' N	**NNG-H21**	002° 13.865' W	56° 19.043' N
NNG-D23	002° 18.666' W	56° 18.572' N	**NNG-H19**	002° 13.397' W	56° 18.588' N
NNG-D22	002° 18.135' W	56° 18.127' N	**NNG-H17**	002° 12.932' W	56° 18.134' N
NNG-D15	002° 16.321' W	56° 16.376' N	**NNG-H15**	002° 12.466' W	56° 17.677' N
NNG-D13	002° 15.848' W	56° 15.946' N	**NNG-H13**	002° 11.997' W	56° 17.214' N
NNG-D06	002° 13.894' W	56° 14.179' N	**NNG-A19**	002° 20.015' W	56° 16.490' N
NNG-D05	002° 13.417' W	56° 13.744' N	**NNG-A15**	002° 19.484' W	56° 15.474' N
NNG-D03	002° 12.421' W	56° 12.828' N	**NNG-F01**	002° 09.915' W	56° 120790' N
NNG-E18	002° 16.122' W	56° 17.324' N	**NNG-H11**	002° 11.513' W	56° 16.740' N
NNG-E16	002° 15.658' W	56° 16.874' N	**NNG-H09**	002° 11.027' W	56° 16.263' N
NNG-E12	002° 14.720' W	56° 16.029' N	**NNG-H08**	002° 10.555' W	56° 15.808' N
NNG-E02	002° 11.251' W	56° 12.829' N	**NNG-H06**	002° 10.079' W	56° 15.324' N
NNG-OSS-N	002° 15.193' W	56° 16.446' N	**NNG-OSS-S**	002° 14.395' W	56° 14.615' N

2.2 Export Cable Landfall – HDD Marine Works

As of 4th March 2021, NnGOWL has completed the HDD supporting works within the nearshore extent of the Export Cable Corridor. Ducting has been installed at HDD1 and HDD2. The first export cable has been installed within HDD 1, with the second due to be installed in July. The position for HDD 2 is provided in Table 5. A surface marker buoy is in place to notify of this.

Table 5 - HDD Ducting Stick up and location

Exit Pit	LONGITUDE (DDM)	LATITUDE (DDM)	Stick-up
HDD 2	002° 23.282' W	55° 57.694' N	N/A

2.3 Recovery of Seabed Hazard at Location NNG-H17

Description (NtM 149 Rev 3.0)
The S7000 successfully completed recovery of the previously left equipment on the 17th August 2021 and has departed site. A small section of the drill remains within the drilled socket. This section protrudes approximately 3.1m above the level of the seabed, at the location specified in Table 6, and is to be cut at a later date. The installed cardinal buoy is due to be removed, which will be notified shortly in a subsequent Notice to Mariners.

Table 6 - As-left Details

	LONGITUDE (DMM)	LATITUDE (DMM)	HEIGHT ABOVE SEABED
Dropped Object	2° 12.9492758' W	56° 18.1335714' N	3.1 m

Vessels	Type / Role	Timescales
S7000	Seabed Hazard Recovery	The recovery operation was completed on the 17th August 2021.

Area
Project Location: Wind Farm Area, shown in Table 1.

3 Ongoing Operations

This section outlines the ongoing operations in the Project Areas, for full details regarding the activity, the applicable Notice to Mariners (NtM) can be found on our website at https://nngoffshorewind.com/resources/.

3.1 Guard Vessels

SFF Services has been appointed by NnGOWL to provide guard vessels during the Construction of NnG Offshore Wind Farm. Apart from times of extreme weather, there will always be at least two guard vessels on site, to cover the Wind Farm Area and Export Cable Corridor. The guard vessel's primary duty is security of the construction site by informing and warning non-construction vessels of the ongoing activities and associated Safety Zones. The guard vessels present on site as of the date of issue, are shaded in blue in Table 7.

Table 7 - Guard Vessel Project Rotation

Guard Vessel	Start Date	End Date	Guard Vessel Area
Seagull	25/08/2021	21/09/2021	Wind Farm Area
Artemis	10/08/2021	06/09/2021	Nearshore Area
Morning Dawn	20/08/2021	16/09/2021	Export Cable
Tranquillity	20/08/2021	24/08/2021	Wind Farm Area
Courage	15/08/2021	11/09/2021	Export Cable

The guard vessel details are provided in Section 8.1.

3.2 Pile Installation

Description (NtM 148 Rev 1.0)		
In preparation for the jacket foundation installation, three piles for each wind turbine location and offshore substation platform will be installed. The piles are being installed by the *Saipem 3000 (S3000)* (call sign: C6SW6) into pre-drilled sockets. Pile installation support is provided by the *Skandi Acergy* (call sign: LAFD7) offshore construction vessel. Information regarding the piles which have been installed to date, is provided at https://nngoffshorewind.info/. A supply vessel will be utilised to transport piles to NnG wind farm, *Peak Belfast*. A Crew Transfer Vessel may also be used to support operations, *Pegasus* (call sign V2ED2). The 500m static fishing gear exclusion zone around the Wind Farm Area remains, as shown in Figure 2 and Table 2. Further details of the vessels involved in the works is provided in Section 8.2.		
Vessels	**Type / Role**	Timescales
Saipem 3000	Pile Installation Vessel	The pile installation work is anticipated to be completed by mid-December 2021, weather dependant.
Skandi Acergy	Offshore Construction Vessel	
Peak Belfast	Pile Transfer Vessel	
Pegasus	Crew Transfer Vessel	
Area		
Project Location: Wind Farm Area, shown in Table 1 and Figure 1 Operational Port: Blyth		

3.3 Export Cable Burial Works

Description (NtM 153 Rev 1.0)		
An ROV equipped with a jetting tool and mechanical cutting tool is lowered onto the seabed to undertake burial works. A jetting tool is used for burial operations in softer ground conditions, whilst the mechanical cutting tool is used for burial operations in harder ground conditions. Following the burial of the two export cables, the ROV will complete a post burial survey of the export cables. An exclusion area of 500m either side of each export cable route for static fishing gear is requested. The existing nearshore exclusion area will also remain in place, shown in Table 3 and Figure 3. Vessels with bottom-towed gear are requested to be kept clear of a reduced exclusion area as notified by the Company Fisheries Liaison Officer. Further details of the vessels involved in the works is provided in Section 8.3.		
Vessels	**Type / Role**	Timescales
Normand Pacific	Cable Burial Vessel	The burial of the first export cable began on 21st June 2021. The burial of the second export cable commenced on 12th August 2021.

Area
Project Location: Export Cable Route, shown in Table 1 and Figure 1. Operational Port: Middlesbrough

3.4 Offshore Seabed Preparation

Description (NtM 140 Rev 2.0)		
A single vessel, is undertaking the remaining boulder relocation operations in preparation for installation of the inter array cables in the Wind Farm Area, shown in Figure *4*. The *Sartor* has demobilised has been replaced by the *Vos Sweet* (Call Sign: PCPE) which commenced work on 10th August. Relocation of boulders in areas of inter array cable infrastructure is a critical pre-construction activity to reduce significant Health and Safety risks to the construction phase. Boulders will be relocated a short distance from their existing position only. Further details of the vessel involved in the works is provided in Section 8.4.		
Vessels	**Type / Role**	Timescales
Vos Sweet	Offshore Supply Ship – Boulder Clearance	The works are expected to last until December 2021, weather dependent.
Area		
Project Location: Wind Farm Area, shown in Table 1 and Figure 1 Operational Port: Montrose		
Map		

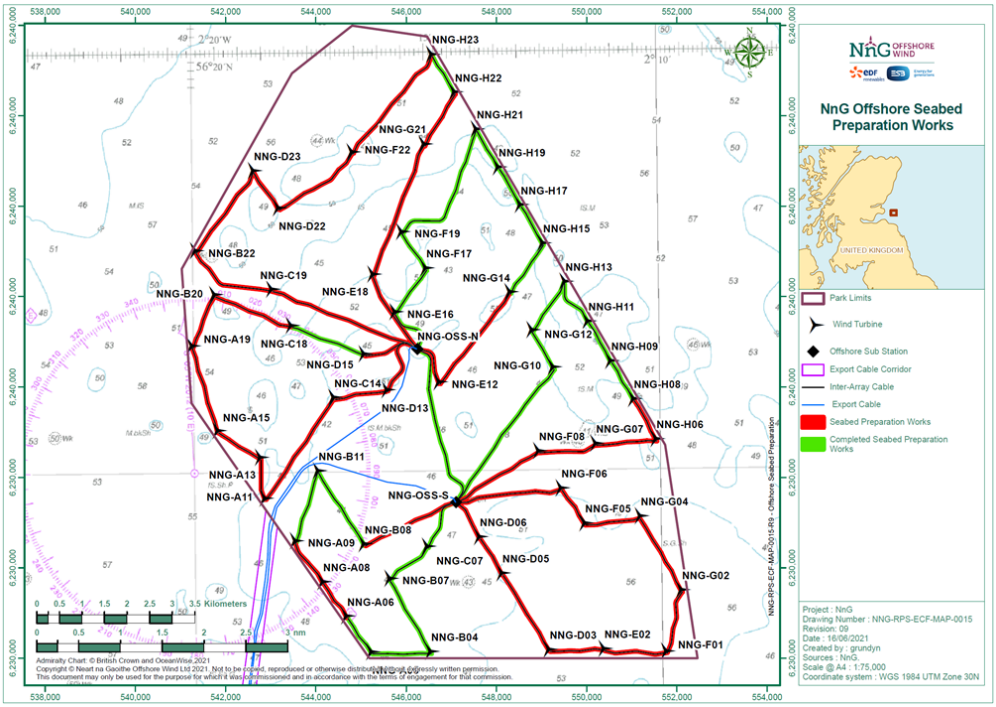

Figure 4 - Wind Farm Area showing Inter-array cable routes where boulder clearance remaining (Red)

3.5 Inter-Array Cable Pre-Lay Trenching Works

Description (NtM 160 Rev 1.0)		
NnGOWL have commenced the pre-lay trenching works campaign on 12th August, with the pre-trenching survey carried out by the *Guardian*. Once a pre-trenching survey is complete and the routes are confirmed clear of any seabed obstructions, an ROV equipped with a jetting tool and mechanical cutting tool will be deployed to commence pre-lay trenching works. The ROV will be guided to the inter-array cable routes and commence cutting operations along the seabed. The *Guardian* will complete a post trenching survey to monitor the trenching depth. From the 6th September 2021 at the earliest, the *Libertas* will be an additional vessel completing survey and crew transfer operations. Further details of the vessel involved in the works is provided in Section 8.5.		
Vessels	**Type / Role**	Timescales
Living Stone	Cable Lay Vessel	The inter-array cable pre-lay trenching works commenced on 12th August. The pre-lay trenching works will be undertaken between August 2021 and September 2021. From 3rd September 2021 at the earliest, the *Living Stone* will arrive to site and the *Libertas* may be an additional vessel completing survey and crew transfer operations.
Guardian	Survey Vessel & Crew Transfer Vessel	
Libertas	Survey Vessel & Crew Transfer Vessel	
Area		
Project Location: Wind Farm Area, shown in Table 1. Operational Port: Vlissingen, Netherlands & Rosyth, Scotland.		

4 Planned Operations

4.1 Nearshore Post-Cable Installation Works

Description (NtM 161 Rev 1.0)		
A dive vessel, *CRC Tempest* (MYUY7) and a crew transfer vessel, *Celtic Guardian* (21ZH5) are due to return to the nearshore area of Thorntonloch to complete some work on the infrastructure at the HDD exit point for each export cable. A flange plate is to be installed by divers working from the Tempest. The Tempest will use a four-point mooring spread for the duration of the work, which is expected to be up to three days.		
Vessels	**Type / Role**	Timescales
Tempest	Dive Vessel	The work is expected to start on Tuesday 24th August at the earliest and be completed within three days, weather dependent.
Celtic Guardian	Crew Transfer Vessel/ Guard Vessel	

5 General Safety Advice

All vessels engaged in the construction activity will exhibit appropriate lights and shapes prescribed by the International Regulations for Preventing Collisions at Sea; relative to their operations. All vessels engaged in the activity will also transmit an Automatic Identification System (AIS) message. Mariners are requested to navigate with caution and keep continued watch on VHF Ch. 16, when navigating the area.

Please be aware that by virtue of their mode of operation and the equipment deployed vessels will be Restricted in their Ability to Manoeuvre (RAM) as defined under COLREGs (International Regulations for Preventing Collisions at Sea 1972, Rule 3). Masters of vessels are therefore requested to maintain their vessels and gears at a minimum safe distance from these vessels of 500 metres when it is undertaking it work and showing the appropriate shapes and lights in accordance with COLREGs Rule 18.

Use of Safety Zones within the Neart na Gaoithe Offshore Wind Farm Construction Area is as follows:

- Mandatory "rolling" 500 metres (m) Safety Zones will be established around each wind farm structure (turbines and Offshore Substation Platforms (OSP)) and/or their foundations whilst construction works are in progress, as indicated by the presence of a construction vessel. Up to ten of these Safety Zones may be active at any given time.

The duty Guard Vessels and Marine Coordination Centre will be responsible for monitoring and policing the Safety Zones; and can be contacted directly for advice. Users are advised to keep clear of construction activities, including Safety Zones.

6 Fisheries Liaison

Fisheries liaison associated with the activity will be co-ordinated by the Company Fisheries Liaison Officer. For any commercial fishery queries please contact: Peter Berney, telephone: +44 (0)7391 402387 or email: NnG.FLO@naturalpower.com. For any other general queries please contact info@nngoffshorewind.com.

7 Marine Coordination Contact Details

The following contact can provide more information if required. Please note that specific queries can also be addressed to the relevant vessel or shore-based representative. The contact details for the marine coordination centre are indicated in Table 8.

Table 8 - Marine Coordination Contact Details

Telephone number (daytime operations):	+44 (0)7508421406 / +44 (0)1890 751415
Emergency contact (24/7):	+44 (0)7508421406 / +44 (0)1890 751415
Email:	nng.mc@smchse.com
Address:	NnG Offshore Wind Farm Marine Coordination Centre Gunsgreen Basin Eyemouth TD14 5SD

8 Vessels Associated with the Activity

Vessel	Vessel Function	Vessel Contact Details	Vessel Information
8.1 Guard Vessels			
Tranquillity S	Guard Vessel	Contact name: Vessel Master Email: spousekeil@yahoo.com Phone: +44 (0) 1346 454758	Call sign: MJUH9 IMO: N/A MMSI: 235053837

Vessel	Vessel Function	Vessel Contact Details	Vessel Information
			
Artemis 	Guard Vessel	Contact name: Vessel Master Email: concordebf47@aol.com Phone: +44 (0) 7949 663790 / +44 (0) 1261 455461	Call sign: MVIX5 IMO: 9119713 MMSI: 233975000
Seagull 	Guard Vessel	Contact name: Vessel Master Email: seagullbf74@gmail.com Phone: +44 (0) 1261 878040 / +44 (0) 7895 919100	Call sign: MVBO2 IMO: 9112545 MMSI: 233714000
8.2 Pile Installation			
Saipem 3000 (S3000) 	Pile Installation	Contact name: Vessel Master Email: captain.s3000@saipem.com Phone: +39 02 010 24650	Call sign: C6SW6 IMO: 8309165 MMSI: 311516000
Skandi Acergy 	Offshore Construction Vessel	Contact name: Vessel Master Email: Acergy.captain@acergy.dof.no Phone V-Sat: +47 23 67 54 04	Call sign: LAFD7 IMO: 9387217 MMSI: 257691000
Peak Belfast 	Pile Transfer Vessel	Capt. F.B.Zeinstra peakbelfast@peakgroup.nl +31 (0) 651184147 (24hr)	Call sign: PBPZ IMO: 9544891 MMSI: 246403000

Vessel	Vessel Function	Vessel Contact Details	Vessel Information
Pegasus 	Crew Transfer Vessel	Contact name: Ben Stokes Email: Benjamin.Stokes@saipem.com Phone: +44 7833 479 546	Call sign: V2ED2 IMO: 9433743 MMSI: 305389000
8.3 Export Cable Burial			
Morning Dawn 	Guard Vessel – Export Cable Installation	Contact name: Vessel Master Email: bridge@morning-dawn.co.uk Phone: + 33 640 047722 / +44 1779 400158	Call sign: MHEU3 IMO: 8701416 MMSI: 232253000
Courage 	Guard Vessel – Export Cable Installation	Contact name: Vessel Master Email: couragesh170@gmail.com Phone: +44 1261 877295 / +44 7766 833463	Call sign: MJDL4 IMO: 8712568 MMSI: 233308000
Normand Pacific 	Export Cable Burial Vessel	Knut Ove Emberland knut.ove.emberland@solstad.com +47 5285 9553 / +47 9132 2633	Call sign: LAXI7 IMO: 9491977 MMSI: 257743000
8.4 Boulder Relocation Operations			
Vos Sweet 	Offshore Supply Ship – Boulder Clearance	Bob Kingdom bobk@hughes-subsea.com +44(0) 7956 222203 (24hr)	Call sign: PCPE IMO: 9601522 MMSI: 246609000
8.5 Inter-Array Cable Pre-Lay Trenching Works			
Living Stone	Cable Lay Vessel – Inter-Array Cable Pre-Trenching	TBC	Call sign: PBXN IMO: 9776925 MMSI: 244010952

Vessel	Vessel Function	Vessel Contact Details	Vessel Information
			
Guardian 	Survey & Crew Transfer Vessel	Vessel Master guardian@braveheartmarine.com 0031 652786409	Call sign: PCFJ IMO: NA MMSI: 244750806
Libertas 	Survey & Crew Transfer Vessel	Vessel Master libertas@braveheartmarine.com 0031 650626941 (24 hour)	Call sign: PCVF IMO: NA MMSI: 244663000
8.6 Nearshore Post-Cable Installation Works			
Tempest 	Dive Support Vessel	Contact name: Rob Merrix Email: crctempest@commercialribcharter.co.uk	Call sign: MYUY7 IMO: NA MMSI: 232003835
Celtic Guardian 	Crew Transfer Vessel	Contact name: Vessel Master Iain Hill Email: Iaian.hill@specialisedmarinesupport.com	Call sign: 21ZH5 IMO: NA MMSI: 235114006