

Notice to Mariners

Scottish Hydro Electric Power Distribution (SHEPD)

Pentland Firth East (3) Power cable installation

Date of Issue: 26th May 2023

Notice to Mariners

Please be advised that Jan De Nul Luxembourg S.A. shall be undertaking PLGR ("Pre Lay Grapnel Run"), power cable installation and power cable protection activities for the Pentland Firth East (3) project. The project will install a subsea power cable between Caithness at Murkle Bay to Rackwick Bay at Hoy.

The works will be carried out by several vessels which are listed further in this NtM.

An overview of the cable route is shown in **Figure 1**. The working area that will be required for the duration of the power cable installation activities is defined as a corridor $\pm 250\text{m}$ ($\pm$ meaning "either side") around the cable route centre line and additional areas in both Murkle Bay and Rackwick Bay. The related coordinates are listed in **Table 1**.

LEGAL NOTICE

Please be advised that this Notice to Mariners should be treated as official notice of the nature, duration and location of the works which are scheduled to take place. During the period of this notice, we request that you plan your activities around our short-term, temporary activities.

Any failure to remove equipment or entry into the identified location in a manner that would constitute a hazard may be a breach of your duties of safe seamanship as described in the Convention on International Regulations for Preventing Collisions at Sea 1972 and/or the Merchant Shipping Act 1995, and may result in removal of the relevant equipment. Failure to remove equipment or entry into the identified location in a manner that would constitute a hazard may constitute a breach of duty of care at common law, and a failure to protect submarine cables for successful seabed user co-existence under Scotland's National Marine Plan.

SSEN shall found on this notice in the event of any damage, loss or disruption arising from failure to heed the information herein.

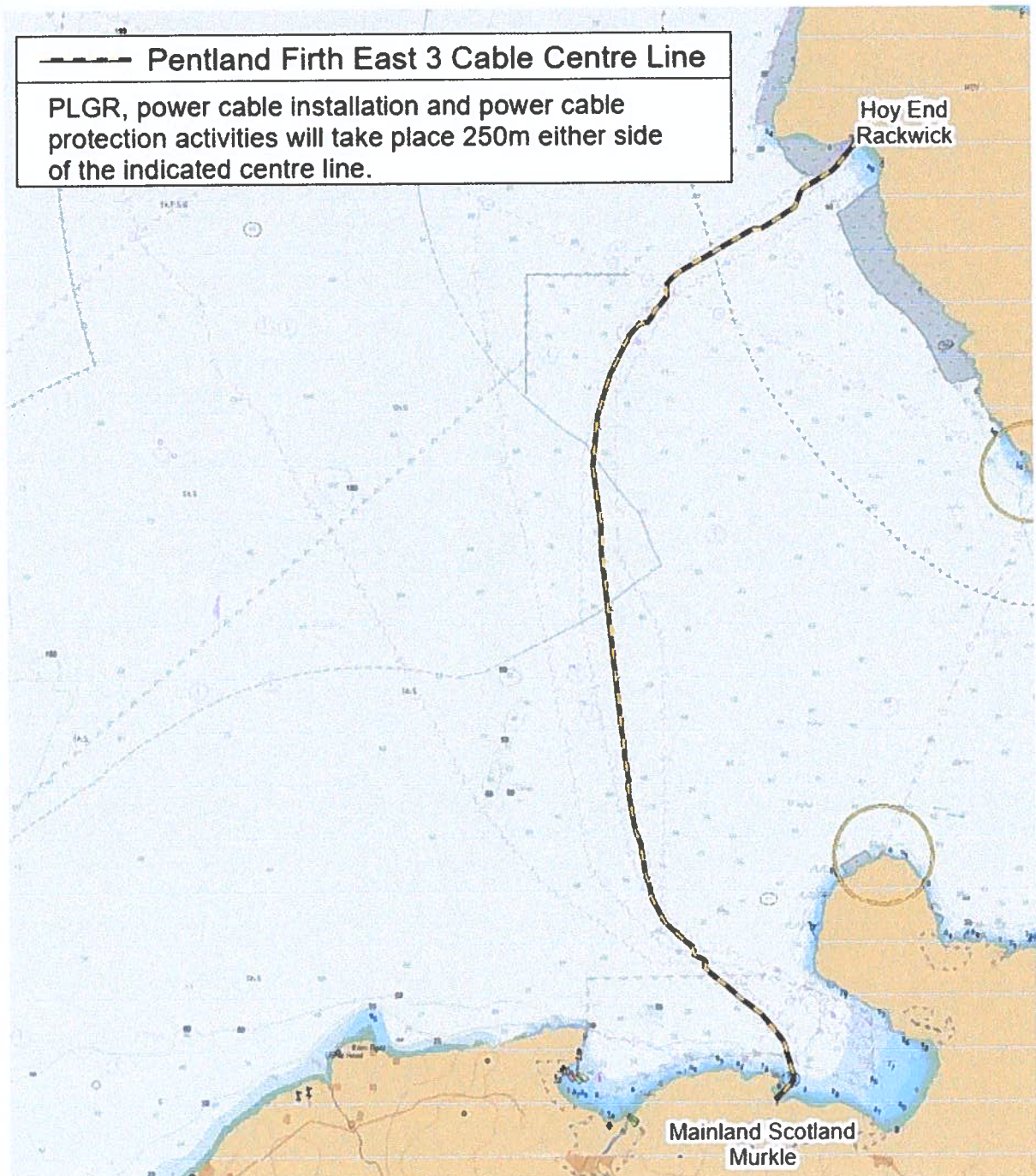


Figure 1: PFE(3) Cable route Overview

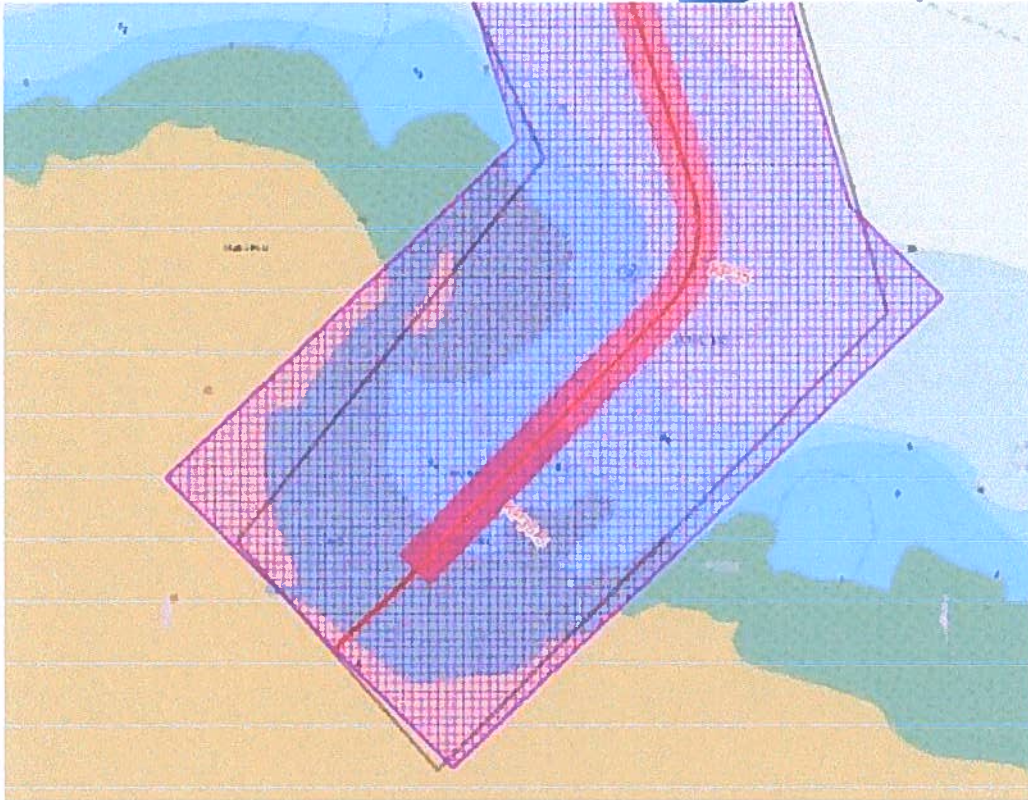


Figure 2: PFE(3) Overview of clearance corridor at Murkle Bay

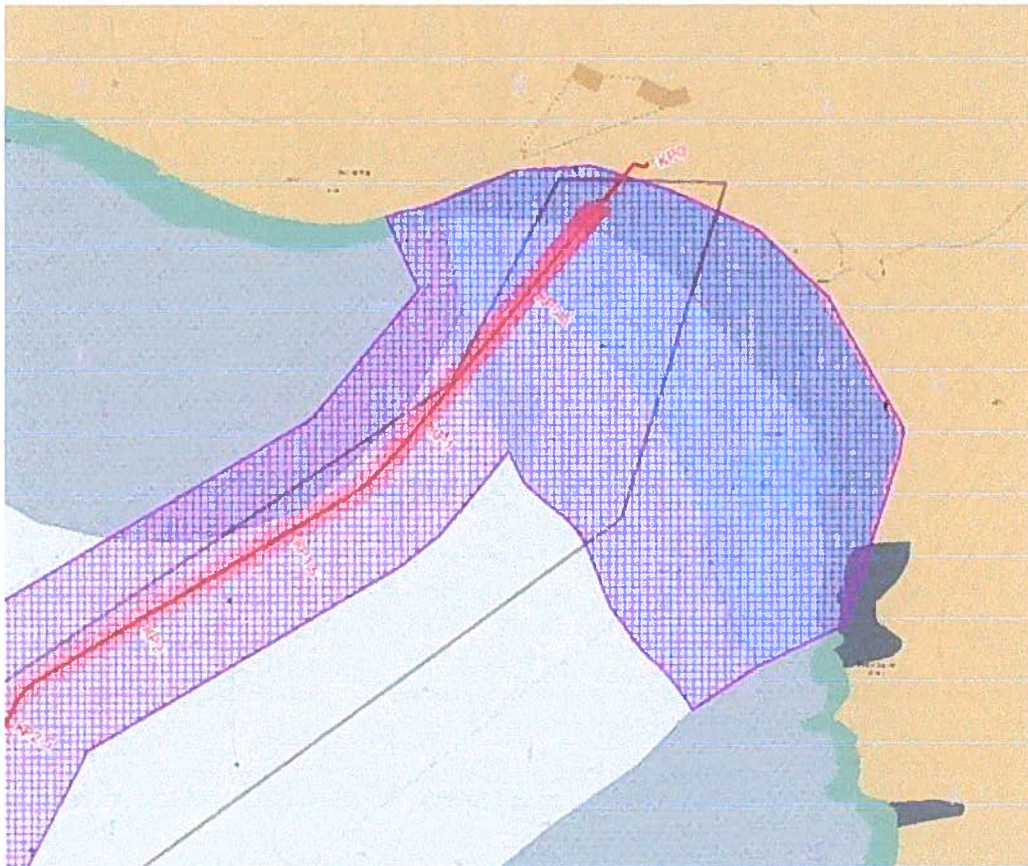


Figure 3: PFE(3) Overview of clearance corridor at Rackwick Bay

Table 1: Route Position

Point	Easting (m)	Northing (m)	Latitude (Degree)	Longitude (Degree)
	WGS84 UTM Zone 30N		WGS84	
P001	475757.550	6523601.149	58 51 05.672N	03 25 12.550W
P002	475988.405	6524043.289	58 51 20.014N	03 24 58.318W
P003	476894.302	6524575.647	58 51 37.403N	03 24 01.991W
P004	477005.799	6524668.239	58 51 40.419N	03 23 55.067W
P005	477100.843	6524777.479	58 51 43.969N	03 23 49.176W
P006	477209.541	6524909.096	58 51 48.245N	03 23 42.441W
P007	477218.122	6524891.982	58 51 47.693N	03 23 41.899W
P008	477246.539	6524837.213	58 51 45.928N	03 23 40.105W
P009	477256.381	6524819.592	58 51 45.360N	03 23 39.485W
P010	477290.830	6524784.032	58 51 44.217N	03 23 37.321W
P011	477333.692	6524751.806	58 51 43.183N	03 23 34.635W
P012	477345.916	6524742.439	58 51 42.882N	03 23 33.868W
P013	477367.983	6524721.961	58 51 42.225N	03 23 32.484W
P014	477380.365	6524710.372	58 51 41.852N	03 23 31.707W
P015	477396.240	6524693.068	58 51 41.296N	03 23 30.710W
P016	477412.115	6524675.129	58 51 40.719N	03 23 29.712W
P017	477432.594	6524640.363	58 51 39.599N	03 23 28.422W
P018	477437.198	6524632.267	58 51 39.338N	03 23 28.131W
P019	477460.375	6524574.799	58 51 37.484N	03 23 26.664W
P020	477466.884	6524560.353	58 51 37.018N	03 23 26.252W
P021	477480.695	6524520.506	58 51 35.733N	03 23 25.376W
P022	477501.650	6524460.658	58 51 33.802N	03 23 24.047W
P023	477541.497	6524405.571	58 51 32.028N	03 23 21.540W
P024	477579.755	6524353.025	58 51 30.337N	03 23 19.133W
P025	477595.631	6524331.276	58 51 29.637N	03 23 18.135W
P026	477652.304	6524279.206	58 51 27.964N	03 23 14.579W
P027	477688.976	6524234.756	58 51 26.533N	03 23 12.275W
P028	477699.294	6524221.738	58 51 26.115N	03 23 11.626W
P029	477729.140	6524176.812	58 51 24.668N	03 23 09.748W
P030	477739.935	6524161.096	58 51 24.162N	03 23 09.069W
P031	477932.732	6524289.223	58 51 28.340N	03 22 57.084W
P032	478127.994	6524383.679	58 51 31.429N	03 22 44.932W
P033	478175.328	6524406.999	58 51 32.192N	03 22 41.987W
P034	478220.210	6524525.584	58 51 36.034N	03 22 39.228W
P035	478338.829	6524900.572	58 51 48.179N	03 22 31.956W
P036	478354.859	6524976.425	58 51 50.634N	03 22 30.982W
P037	478303.207	6525059.573	58 51 53.313N	03 22 34.235W
P038	478133.294	6525356.572	58 52 02.884N	03 22 44.946W
P039	477935.596	6525546.737	58 52 08.996N	03 22 57.354W
P040	477685.373	6525662.506	58 52 12.692N	03 23 13.015W
P041	477441.325	6525734.165	58 52 14.963N	03 23 28.276W
P042	477221.169	6525720.516	58 52 14.480N	03 23 42.014W
P043	476992.481	6525624.971	58 52 11.347N	03 23 56.254W
P044	476852.537	6525587.435	58 52 10.107N	03 24 04.976W
P045	476946.727	6525376.068	58 52 03.291N	03 23 59.018W
P046	476719.413	6525100.824	58 51 54.349N	03 24 13.103W
P047	476633.943	6525002.589	58 51 51.156N	03 24 18.400W
P048	475722.724	6524467.104	58 51 33.662N	03 25 15.063W
P049	475551.817	6524287.413	58 51 27.818N	03 25 25.657W
P050	475374.011	6523946.872	58 51 16.771N	03 25 36.617W
P051	474304.277	6523238.634	58 50 53.649N	03 26 43.070W

Point	Easting (m)	Northing (m)	Latitude (Degree)	Longitude (Degree)
	WGS84 UTM Zone 30N		WGS84	
P052	474214.185	6523219.400	58 50 53.007N	03 26 48.682W
P053	474083.792	6523169.405	58 50 51.363N	03 26 56.796W
P054	471822.149	6521868.683	58 50 08.799N	03 29 17.292W
P055	471469.547	6521548.157	58 49 58.352N	03 29 39.134W
P056	471395.482	6521437.400	58 49 54.754N	03 29 43.701W
P057	471324.173	6521122.918	58 49 44.570N	03 29 48.002W
P058	471341.701	6521001.579	58 49 40.651N	03 29 46.853W
P059	471139.904	6520758.436	58 49 32.742N	03 29 59.322W
P060	470851.281	6520353.031	58 49 19.565N	03 30 17.125W
P061	470827.788	6520320.034	58 49 18.492N	03 30 18.574W
P062	470752.663	6520305.050	58 49 17.990N	03 30 23.250W
P063	470514.829	6520174.096	58 49 13.698N	03 30 38.013W
P064	470454.354	6520110.601	58 49 11.630N	03 30 41.753W
P065	470204.471	6519848.203	58 49 03.085N	03 30 57.203W
P066	469582.291	6518594.483	58 48 22.395N	03 31 35.368W
P067	469171.292	6517339.673	58 47 41.722N	03 32 00.354W
P068	469151.263	6517245.298	58 47 38.666N	03 32 01.555W
P069	468992.764	6515692.504	58 46 48.423N	03 32 10.653W
P070	468994.704	6515585.105	58 46 44.952N	03 32 10.478W
P071	469256.612	6513695.156	58 45 43.917N	03 31 53.239W
P072	469263.469	6512976.115	58 45 20.672N	03 31 52.457W
P073	469346.724	6512209.552	58 44 55.910N	03 31 46.900W
P074	470005.966	6505842.728	58 41 30.235N	03 31 02.835W
P075	470076.159	6505355.239	58 41 14.491N	03 30 58.242W
P076	470275.350	6504219.122	58 40 37.809N	03 30 45.334W
P077	470295.467	6504141.124	58 40 35.293N	03 30 44.048W
P078	470410.334	6503818.486	58 40 24.890N	03 30 36.765W
P079	470541.405	6502918.359	58 39 55.820N	03 30 28.207W
P080	470654.211	6502558.716	58 39 44.220N	03 30 21.038W
P081	470743.275	6502139.373	58 39 30.684N	03 30 15.316W
P082	471182.490	6501349.099	58 39 05.240N	03 29 47.702W
P083	472000.943	6500597.013	58 38 41.117N	03 28 56.595W
P084	472515.291	6499802.953	58 38 15.563N	03 28 24.347W
P085	472926.567	6499431.605	58 38 03.650N	03 27 58.685W
P086	474218.186	6498387.357	58 37 30.172N	03 26 38.173W
P087	474825.420	6497629.443	58 37 05.796N	03 26 00.229W
P088	474841.544	6497604.082	58 37 04.979N	03 25 59.220W
P089	475037.035	6496910.966	58 36 42.610N	03 25 46.829W
P090	475084.604	6496763.948	58 36 37.867N	03 25 43.824W
P091	474506.148	6496213.133	58 36 19.937N	03 26 19.442W
P092	474977.278	6495739.846	58 36 04.734N	03 25 50.067W
P093	475783.377	6496508.008	58 36 29.734N	03 25 00.429W
P094	475630.849	6496658.142	58 36 34.557N	03 25 09.937W
P095	475515.679	6497055.844	58 36 47.392N	03 25 17.227W
P096	475302.853	6497810.424	58 37 11.746N	03 25 30.712W
P097	475232.709	6497920.755	58 37 15.298N	03 25 35.102W
P098	474574.586	6498742.184	58 37 41.719N	03 26 16.224W
P099	473251.526	6499811.853	58 38 16.016N	03 27 38.699W
P100	472880.832	6500146.558	58 38 26.755N	03 28 01.829W
P101	472330.560	6500973.167	58 38 53.355N	03 28 36.318W
P102	471580.284	6501662.604	58 39 15.470N	03 29 23.167W
P103	471216.773	6502316.666	58 39 36.530N	03 29 46.019W

Point	Easting (m)	Northing (m)	Latitude (Degree)	Longitude (Degree)
	WGS84 UTM Zone 30N		WGS84	
P104	471138.381	6502685.760	58 39 48.445N	03 29 51.053W
P105	471030.435	6503029.910	58 39 59.545N	03 29 57.910W
P106	470904.402	6503895.434	58 40 27.498N	03 30 06.133W
P107	470883.032	6503981.522	58 40 30.276N	03 30 07.500W
P108	470767.973	6504304.701	58 40 40.697N	03 30 14.793W
P109	470569.966	6505434.060	58 41 17.162N	03 30 27.616W
P110	470502.282	6505904.130	58 41 32.343N	03 30 32.040W
P111	469843.936	6512262.294	58 44 57.741N	03 31 15.996W
P112	469763.211	6513005.563	58 45 21.751N	03 31 21.379W
P113	469756.283	6513732.008	58 45 45.235N	03 31 22.162W
P114	469490.797	6515647.781	58 46 47.105N	03 31 39.622W
P115	469648.131	6517189.162	58 47 36.978N	03 31 30.579W
P116	470046.217	6518404.547	58 48 16.372N	03 31 06.370W
P117	470618.722	6519558.171	58 48 53.810N	03 30 31.246W
P118	470816.436	6519765.787	58 49 00.571N	03 30 19.021W
P119	470865.978	6519817.803	58 49 02.265N	03 30 15.957W
P120	470945.036	6519833.571	58 49 02.794N	03 30 11.037W
P121	471223.597	6520013.882	58 49 08.690N	03 29 53.759W
P122	471258.592	6520063.035	58 49 10.288N	03 29 51.600W
P123	471536.481	6520453.364	58 49 22.974N	03 29 34.458W
P124	471740.638	6520699.349	58 49 30.975N	03 29 21.843W
P125	471839.740	6521051.078	58 49 42.370N	03 29 15.824W
P126	471821.780	6521175.411	58 49 46.385N	03 29 17.000W
P127	471851.157	6521219.343	58 49 47.812N	03 29 15.189W
P128	472118.386	6521462.261	58 49 55.729N	03 28 58.636W
P129	474326.259	6522732.060	58 50 37.276N	03 26 41.489W
P130	474417.966	6522751.638	58 50 37.928N	03 26 35.777W
P131	474569.724	6522814.726	58 50 40.000N	03 26 26.336W

The vessels carrying out the works will be restricted in their ability to manoeuvre and will display the appropriate lights and shapes (two black spheres and in the middle a black diamond shape, in a vertical line). Other vessels are requested to pass at a safe speed and provide a minimum clearance of 500m (COLREGs Rule 16 & 18) from the vessels during marine operations. The vessels will monitor VHF Channel 16 at all times. Mobile contacts for the vessels are listed at the end of this NtM.

Schedule of Operations

A summary of the Schedule of Operations for the survey activity is shown below in **Table 2**.

Table 2: Schedule of Operations

Dates	Vessel Scope	Vessel(s)
23 June – 01 July 2023	Pre-Lay Grapnel Run (PLGR)	PLGR SV (multicat or tug boat)
23 June – 23 July 2023	Submarine Power Cable Installation	Connector Multiple cable pull-in support vessels Dive support vessel Uskmoor
23 June - 07 August 2023	Submarine Power Cable protection	Symphony Adhémar De Saint-Venant Dive support vessel Uskmoor

Vessel and Equipment Details

The vessels that are currently planned to carry out the marine survey activities are listed in **Table 3** below.

Table 3: Vessel Details

Vessel Photo	Vessel Description
	PLGR Support Vessel (multicat or tugboat) LOA: TBC, Breadth: TBC, Draft: TBC Call Sign: 2IAV3 IMO No: 9707962 MMSI No: 235108183 Email: pieter.willems@jandenul.com
	Connector LOA: 156.9m, Breadth: 32 m, Draft: 8.7 m Call Sign: LXEV IMO No: 9435480 MMSI No: 253751000 Mobilized with 2 x Shilling HD Work Class ROV Email: bridge@ct.jandenul.com



Symphony
LOA: 130.2 m, Breadth: 24 m, Draft: 7.5 m
Call Sign: LXTT
IMO No: 9492581
MMSI No: 253830000

Mobilized with 2 x WROV FCV 3000m 150HP and 1 x trenching ROV Swordfish

Email: bridge@sy.jandenul.com



Adhémar De Saint-Venant
LOA: 95 m, Breadth: 22 m, Draft: 6.5 m
Call Sign: LXUD
IMO No: 9778703
MMSI No: 253351000

Mobilized with 1 x WROV 150HP work class type Triton XLS and 1 x trenching ROV UTV1200

Email: bridge@ad.jandenul.com



Dive Support Vessel MV Uskmoor
LOA: 16m, Breadth: 5.5m, Draft: 1.5m
Call Sign: MDEF2
IMO No: 705438
MMSI No: 232004463

Email: pieter.willems@jandenul.com



Cable pull-in support vessel Cabin Rib Celtic Nomad
LOA: 11m, Breadth: 3.4m
Call Sign: 2FYF4
MMSI No: 235095248

Email: pieter.willems@jandenul.com



Cable pull-in support vessel Cabin Rib Delta 9151
LOA: 9.151m, Breadth: 2.75m, Draft 0.5m
Call Sign: MCVE3
MMSI No: 232014627

Email: pieter.willems@jandenul.com

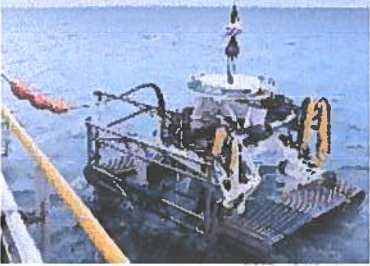
	Cable pull-in support vessel Cabin Rib Sea Echo LOA: 6.843m, Breadth: 2.658m, Draft 0.4m Call Sign: 2HWN7 MMSI No: 2320014627 Email: pieter.willems@jandenul.com
	Cable pull-in support vessel Open Rib Speed bird LOA: 6.843m, Breadth: 2.658m, Draft 0.6m Call Sign: 2HWN7 MMSI No: 2320014627 Email: pieter.willems@jandenul.com
	CTV Green Quest LOA: 17.8m, Breadth: 6.4m, Draft 1.5m Call Sign: 2DYY8 MMSI No: 235083117 Email: pieter.willems@jandenul.com
	CTV Green Storm LOA: 25.75m, Breadth: 10.40m, Draft 2.20m Call Sign: 2EXU3 IMO No: 9638240 MMSI No: 235089035 Email: pieter.willems@jandenul.com
	CTV Athenia LOA: 18.5m, Breadth: 6.1m, Draft 1.25m Call Sign: 2EUE2 MMSI No: 235088194 Email: pieter.willems@jandenul.com



Cable pull-in support vessel
Multicat MV C-Odyssey
LOA: 26m, Breadth: 10.5m, Draft
2.5m
Call Sign: 2ETW7
IMO No: 917987
MMSI No: 235088132

Email: pieter.willems@jandenul.com

Table 4: Equipment Details

Equipment Photo	Equipment Description
	WROV Shilling HD Remotely operated vehicle will be used and deployed from Connector Length: 3.0m Width: 1.85m Height: 2m Weight in Air: 4.3 Te
	WROV FCV 3000 Remotely operated vehicle will be used and deployed from Symphony Length: 3.0m Width: 1.85m Height: 2m Weight in Air: 4.3 Te
	Trenching ROV Swordfish Remotely operated vehicle will be used and deployed from Symphony Length: 11.3m Width: 8.4m Height: 5.6m Weight in Air: 38 Te
	WROV XLS27 Remotely operated vehicle will be used and deployed from Adhemar De Saint Venant Length: 3.0m Width: 1.85m Height: 2m Weight in Air: 4.3 Te
	Trenching ROV UTV1200 Remotely operated vehicle will be used and deployed from Adhemar De Saint-Venant Length: 9.5m Width: 8.8m Height: 5.7m Weight in Air: 42 Te

Works Description

The first activity to be undertaken is a pre-lay grapnel run, which will clear the seabed along the cable route of any debris. This task will be undertaken by multicat Green Isle.

The primary activity of the project is the installation of a subsea power cable between Caithness at Murkle Bay to Rackwick Bay at Hoy. The cable will be transported and installed by cable laying vessel Connector. The cable installation activities will start with a beach pull-in at Murkle Bay, followed by cable laying on the seabed and finally a beach pull-in at Rackwick Bay. Both beach pull-ins will be supported by several support vessels as listed in table 3.

During the beach pull, a diving support vessel as listed in Table 3 will be present at the beach landing with divers removing the floatation units of the cable in order to sink the cable on the correct cable route on the seabed. The dive support vessel will be moored with anchors and the divers will move along the cable at both beach landings (Murkle Bay and Rackwick Bay) removing the floatation units until the cable is completely installed up to -15m LAT.

Following the cable laying, the cable will be protected and stabilized on the seabed. Part of the cable will be buried by a jet trenching machine and other sections will be stabilized by the installation of rock bags on the power cable. These activities will be carried out by Adh  mar De Saint-Venant and Symphony. The cable sections in the nearshore area adjacent to the landfalls will be protected by divers using DSV Uskmoor.

Equipment calibration operations may take place out of the defined corridor and these areas will be chosen so as not to interfere with fishing/shipping activity.

Scrabster harbour will be used as main logistical hub for this project.

Contact Details

Name	Role	Telephone Number
Jan Schreel	Jan De Nul Project Manager	+32 492 23 49 47
Pieter Willems	Jan De Nul Works Manager	+32 478 32 45 58
Dries Vande Verre	Jan De Nul HSSE Advisor	+32 471 11 50 01
Alasdair Crawford	SSEN Project Manager	+44 7436 480 361
Paul Webster	SSEN Safety Advisor	+44 7586 281 840

Fishing Liaison Officers

Fishing liaison for the power cable installation activities will be co-ordinated by Brown and May Marine (BMM). For any commercial fishery queries please contact the Company Fishing Liaison Officer (CFLO) Alex Winrow - Giffin (07760 160039/alex@brownmay.com). The local Fishing Industries Representatives (FIR) are James Bremner (07889 760299/ bremnj@aol.com) on the mainland and Chris Davidson in Orkney (07810 305100/cad17@hotmail.co.uk). The vessel masters will issue regular broadcasts whilst construction works are ongoing to ensure minimal disruption and that vessels maintain an appropriate and safe distance.

Distribution List

The Distribution List of the Notice to Mariners is as per the stakeholder list in the Fisheries Liaison and Management Action Plan (FLMAP).