

General NTM for Hollandse Kust West Beta Windfarm operations

Offshore cable lay operations 2 mile north from entrance of IJmuiden port from coast line and on the beach until 50 miles offshore to the west ongoing for the windfarm Hollandse Kust West. Cable installation works start from 10th of May till mid-August. See overview drawing down below:

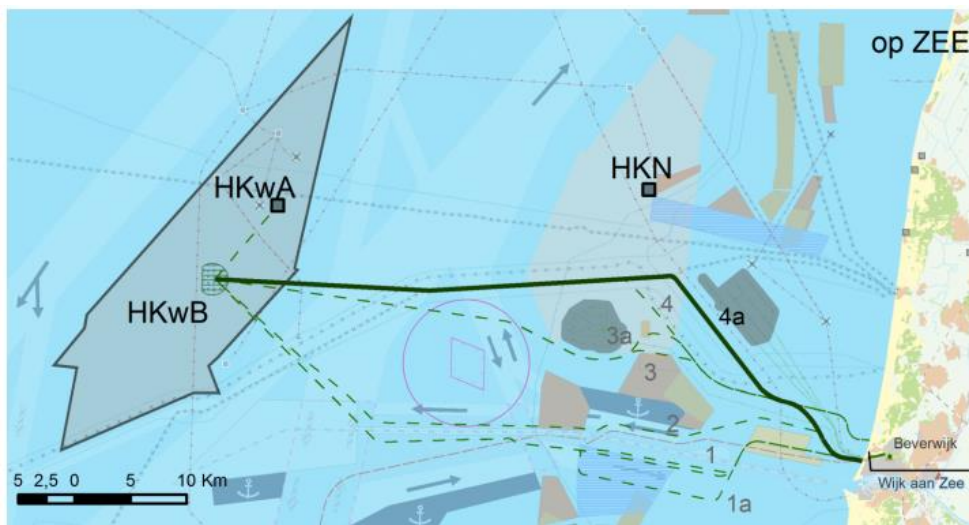


Figure 1 HKWB Cable overview

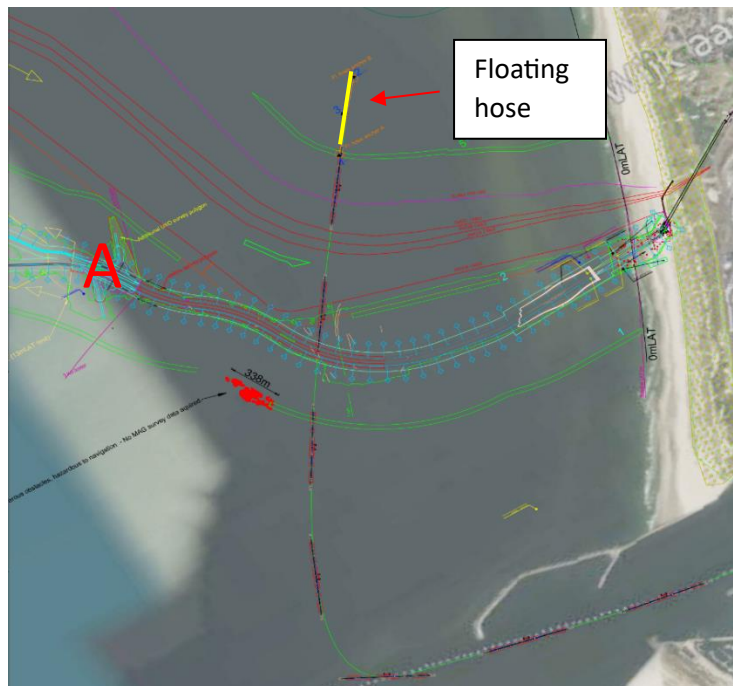


Figure 2 HKWB Near shore cable overview

Nearshore cable installation:

The Nearshore cable from the beach until point A will be installed by the **Giant 7** which is a barge on 9 anchors. Every anchor has an anchor buoy with light, from the anchor a steel wire is running to the **Giant 7**. Due to the **Giant 7** is moving on anchors the **Giant 7** will be a limited maneuverable vessel.

The **Coastal Crown**, **Noordstroom** and the **Odin** are supporting tugs which will reposition anchors for the **Giant 7** or handle the floating hose.

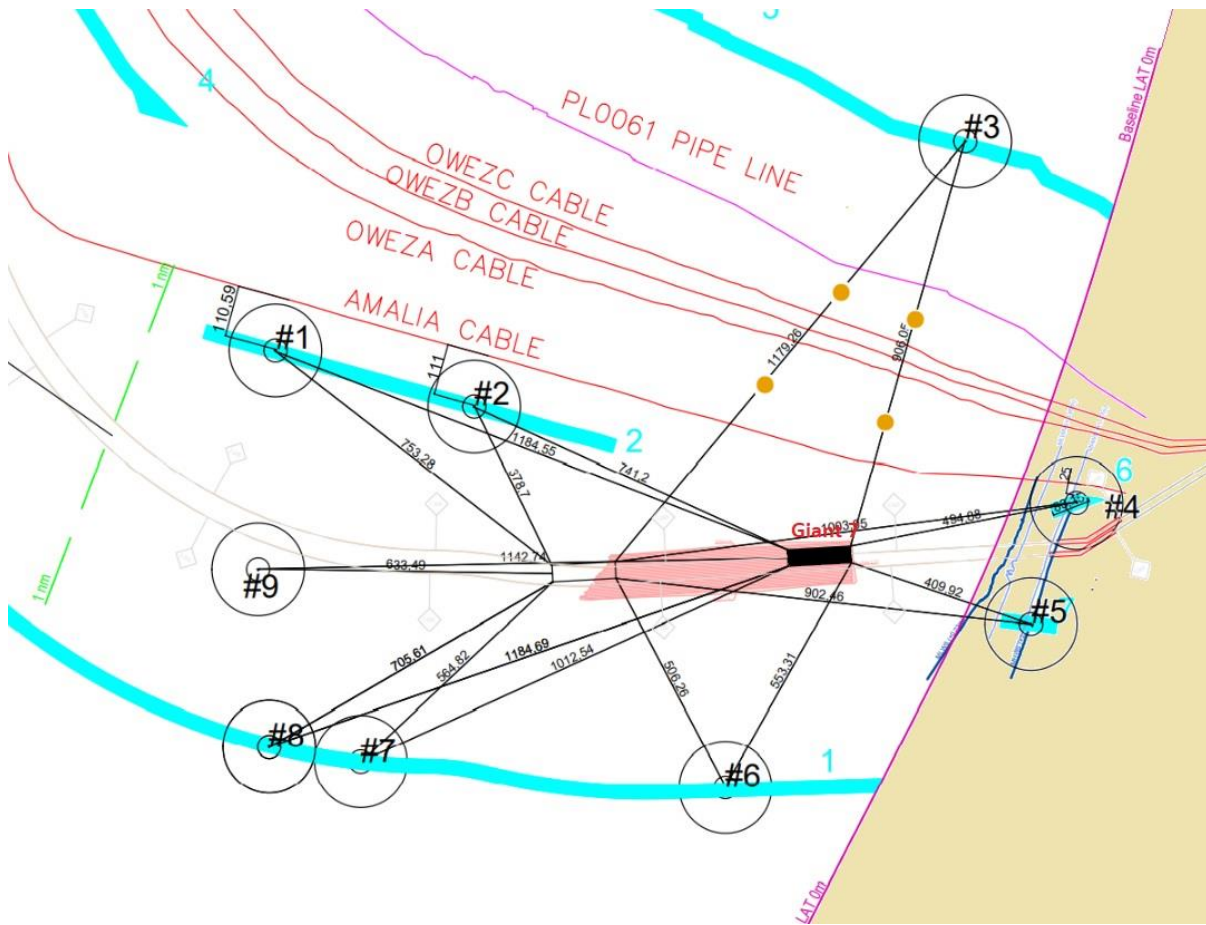


Figure 3 Giant 7 on 9 anchor spread

The floating hose will be temporarily stored on anchors as shown in the Figure 2 above. The floating hose is stored on anchors which have a buoy attached with lights and radar reflector. The floating hose is approx. 450 meter long with 1.2 meter diameter and is floating for approx. 80 cm in the water.

Location floating hose: 52°29;9 N 004°33;7



Dredging operations

500 meter from the beach at Wijk aan zee the dredging vessel **Scald** have started dredging from 17th of April a floatation pit of 500 meter long where later the **Giant 7** will position itself in for the cable installation (Figure 3).

Further offshore the dredging vessel **Gateway 17th** of April started dredging works to prepare the seabed for cable installation.

Backhoe Magnor has started dredging operations in the floatation pit on the 5th of May for the duration of approximately 1 week. During dredging operations, the Magnor will be positioned on spud poles and will be very limited in maneuverability. Magnor will be supported by vessels multicat **Odin** and tug **Wil S**. In addition, the vessel **Union Onyx** with barge **Terraferre 501** will be transporting the dredged soil from Magnor to the IJmuiden spoil ground (north of the fairway).

Pre Lay Grapnel Run (PLGR) operations

A Multicat type of vessel – **Coastal Crown** has started the PLGR works on 26th of April. The PLGR is conducted from landfall to platform direction, and aim for removal of obstacles on seabed that could hamper cable installation within a cable lay corridor by towing PLGR train (chain with hooks) with a speed of typically between 1 to 2 knots.

During PLGR works the vessel are limited maneuverable. Therefore a safe distance of 1 Nm should always be maintained.

Offshore cable installation

Approx. 2 miles from the coast (Point A in the picture above) the offshore cable installation works will be performed by the **Ndurance** and the **Ndeavor**. During cable installation works the vessel are limited maneuverable. Therefore a safe distance of 1 Nm should always be maintained.

Vessels involved:



Figure 3 **Giant 7** Call sign: **ORRU**



Figure 9 **Noordstroom** Call sign: **PIWC**



Figure 10 Coastal Crown Call sign: PDVW



Figure 11 Odin Call sign: PCCQ



Figure 12 Wil S Call sign: PBOZ



Figure 7 Scald Call sign: PCYB



Figure 8 Gateway Call sign: 5BWW2



Figure 13 Magnor Call sign: 5BLS4

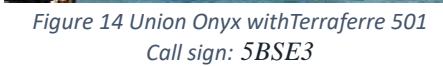


Figure 14 Union Onyx with Terraferre 501
Call sign: 5BSE3



Figure 15 Rockpiper Call sign: 5BML3

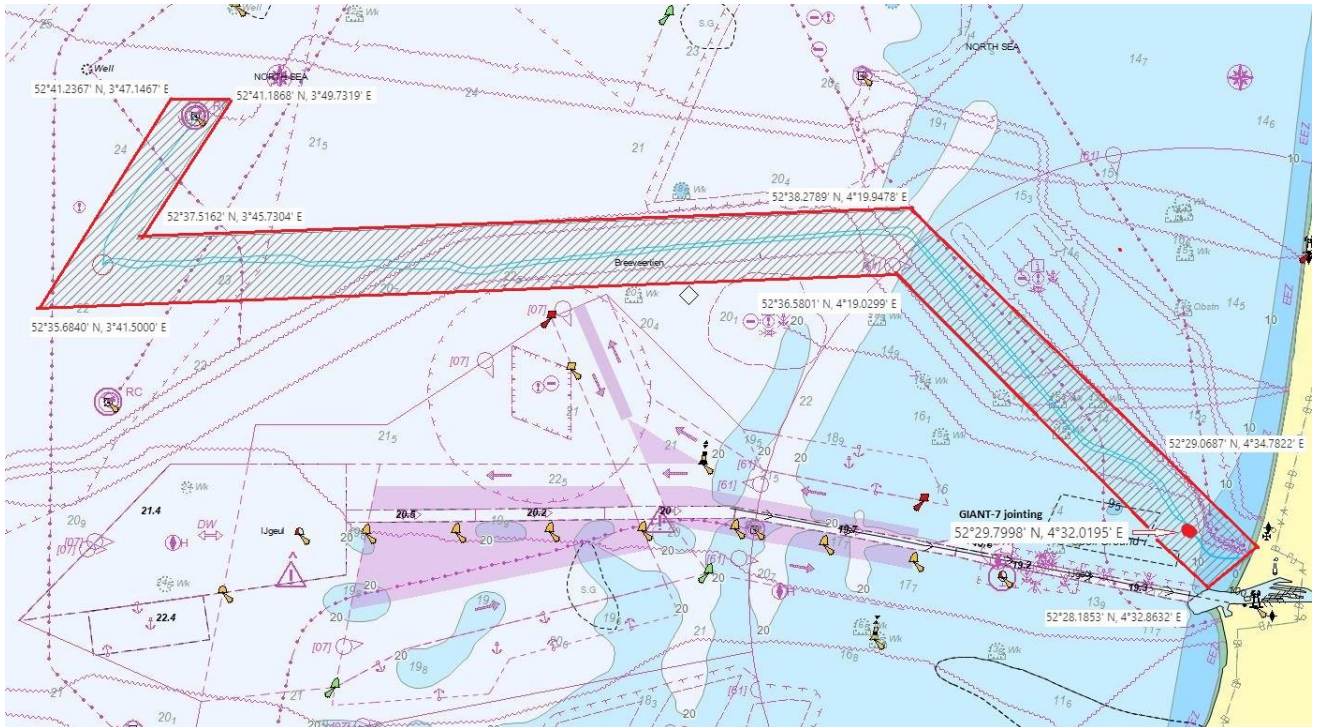


Figure 16 Work Area

Notice To Mariners

All vessels should keep a close lookout in the work area as shown in the picture above. At least 1 mile distance should be maintained from anchor-buoys, installation vessels, floating hoses and other limited maneuverable vessels.

VHF channel 16 should be listened out and instruction by local guard vessels should be followed.

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