

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

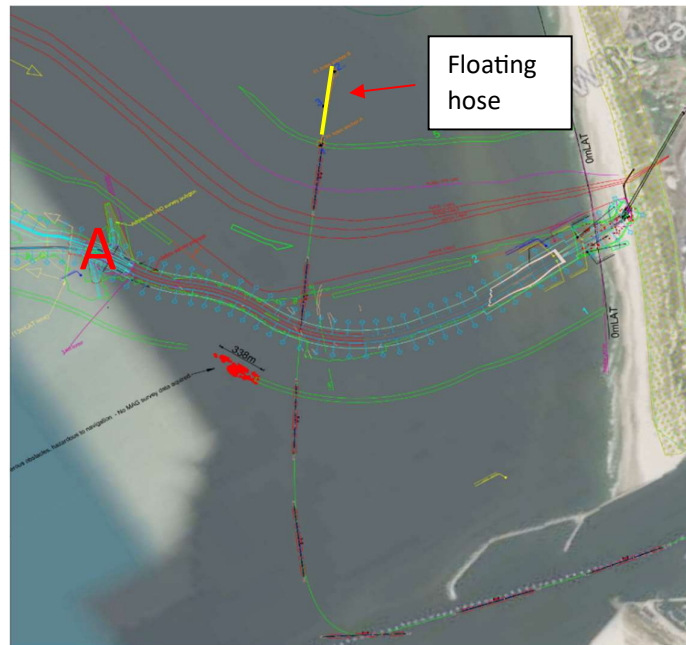


Figure 2 HKWB Near shore cable overview

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.

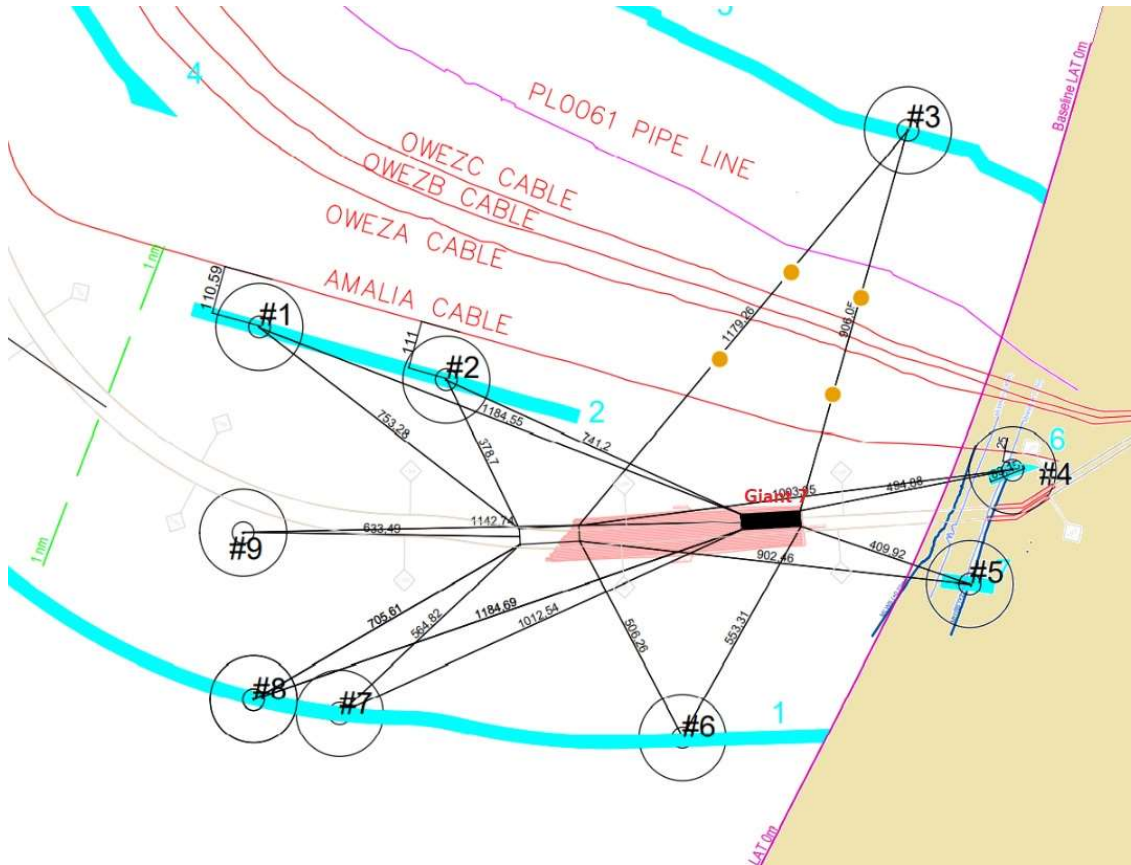


Figure 3 *Giant 7 on 9 anchor spread*

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.

Pre Lay Grapnel Run (PLGR) operations

A Multicat type of vessel – **Coastal Crown** will be utilized for the PLGR works on WK17. The PLGR will be 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 4 Giant 7 Call sign: ORRU



Figure 5 Ndeavor Call sign: 5BVG3



Figure 3 Ndurance Call sign: 5BVH3



Figure 6 Scald Call sign: PCYB



Figure 7 Gateway Call sign: 5BWW2



Figure 8 Coastal Crown Call sign: PDVW

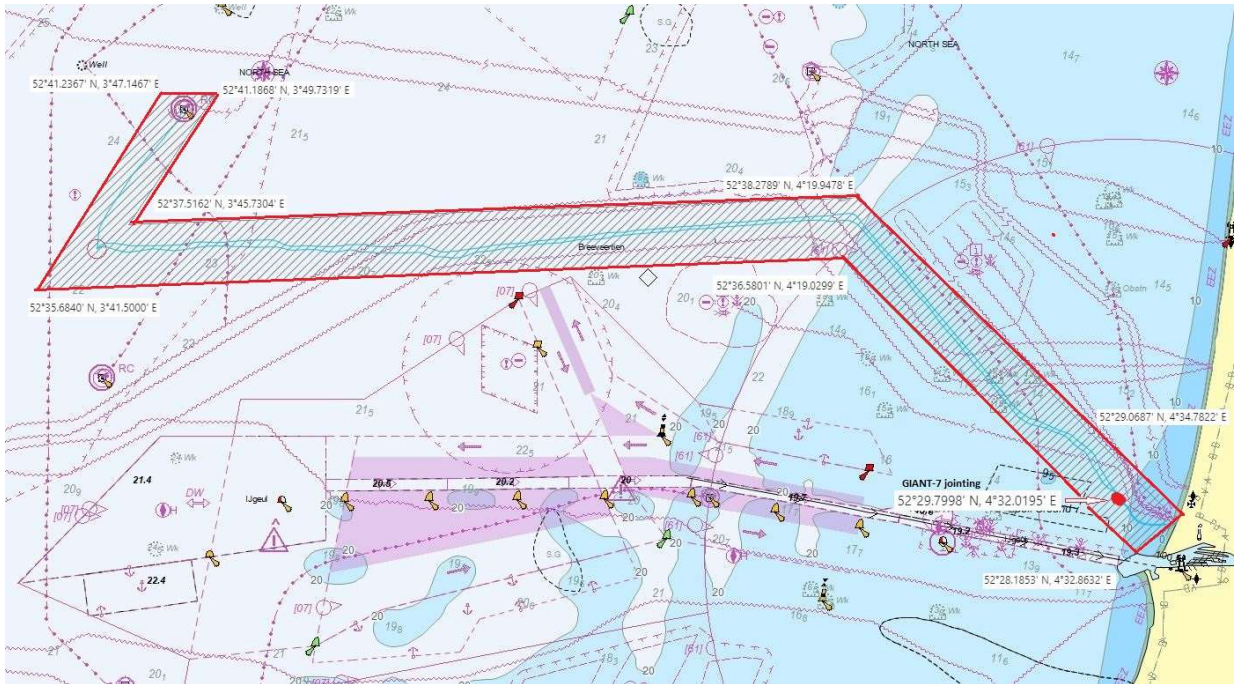


Figure 9 Work Area

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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