

# BORSSELE WIND PARK CABLE

## METOCEAN STUDY

To connect Borssele Wind Park to the shore power grid four AC export cables will be laid through the Western Scheldt estuary and landfall just east of Borssele. Svašek Hydraulics has conducted a metocean study for several points along the cable to determine downtime during cable installation.

Along the cable route wind, wave, current and water level conditions were determined for a period of 10 years.

The wind time series have been generated by means of interpolation of measured wind data in locations Vlissingen, Vlake van de Raan, Hoofdplaat and Oosterschelde 4.

The water levels and current velocities for the output locations have been determined with the model FINEL. The model covers the entire continental shelf and is forced with tidal components and historical fields of pressure fluctuations and wind shear. The model is validated with local water level measurements at Vlake van de Raan, Westkapelle and Vlissingen and flow velocity

measurements at Bol van Heist and de Wandelaar. The highest water level in the time series correspond very well with the 1/10 year water level as determined by Rijkswaterstaat.

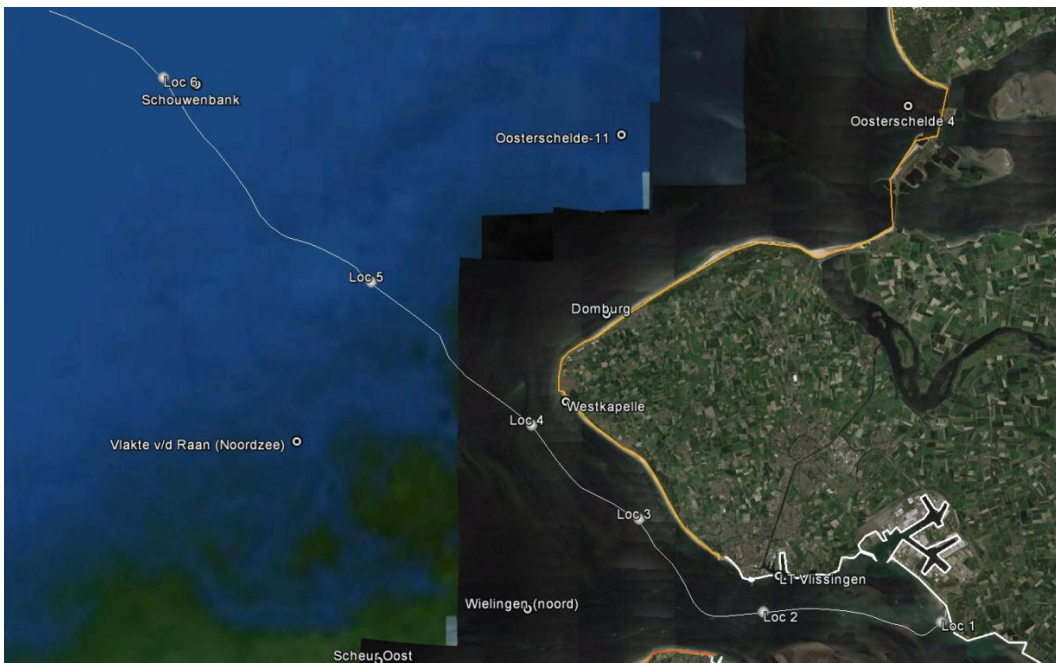
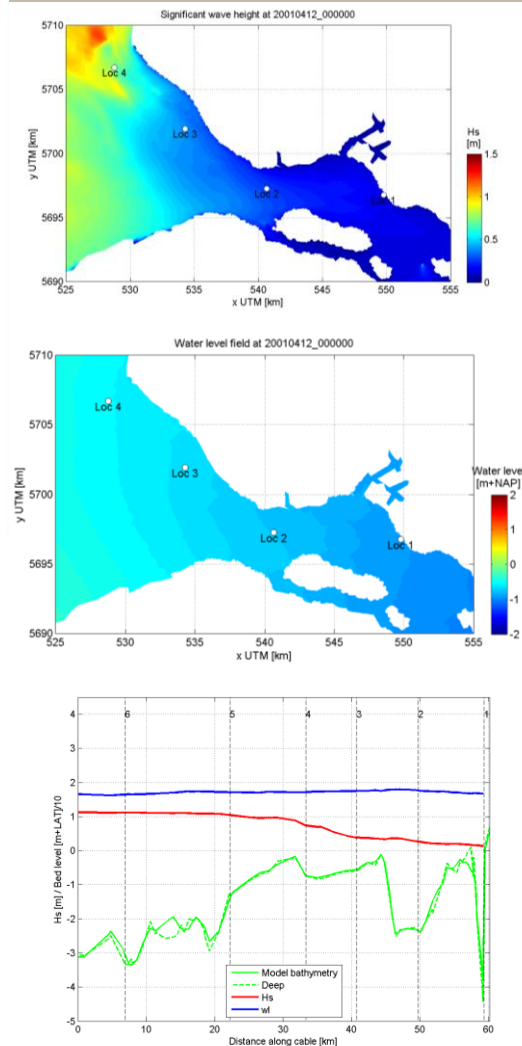
Wave conditions in the output locations are computed with a local SWAN model that is forced with wave conditions at Europlatform (northern boundary) and Westhinder (southern boundary) and spatially varying wind fields based on local measurement stations. The wave model has been validated at measurement station Vlake van de Raan and Wielingen.

CLIENT  
TenneT

LOCATION  
Netherlands

DATE  
2015-2016

SERVICES  
Metocean study  
Current modelling (FINEL)  
Wave modelling (SWAN)



**SVASEK**  
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