

Gate LNG studies

In the Port of Rotterdam Gate LNG B.V. (Gas access to Europe) has built the first LNG import and export terminal in the Netherlands. The Gate terminal has received its first LNG carrier in June 2011. The terminal is located on the Maasvlakte, north of the Beerchannel.

The LNG terminal is protected against waves from the North Sea by the Northern Breakwater, which has a limited crest height of NAP+2m. Especially during high water levels a significant amount of the wave energy will pass this breakwater and contribute to the wave climate in the LNG channel. With the numerical wave models SWAN and HARES Svašek Hydraulics has constructed a transfer matrix which converts the forecasted swell conditions at Europlatform and the forecasted water level at Hook of Holland into a swell wave height at the LNG terminal.

Other studies for Gate LNG were:

- Metocean study (waves, currents, morphology, wind, sea water temperature);
- current modelling in the Gate channel;
- analysing the effects of cold water discharge;
- weather downtime assessment Gate terminal facilities;
- wave buoy measurements at both sides of Northern Breakwater to determine the amount of wave transmission;
- analysis of methods to improve the swell forecast system for Gate LNG.

CLIENT

Gate LNG

LOCATION

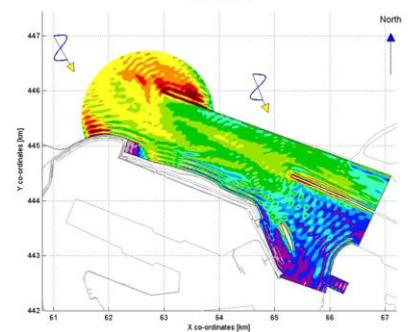
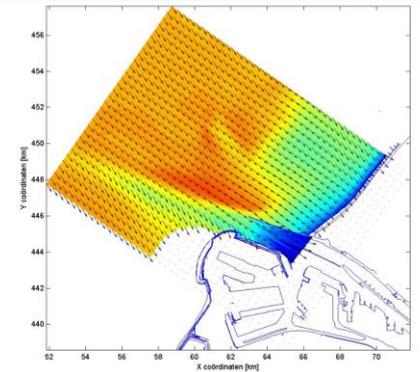
Rotterdam, the Netherlands

DATE

2005 - 2011

SERVICES

Wave modelling, wave penetration modelling, current modelling, cold water discharge modelling, wave measurements, analysis of methods to improve the swell forecast system for Gate LNG.



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