



**Gemini shallow water cable installation, The Netherlands, Eemshaven**

## Gemini - Shallow Water Export Cable Installation

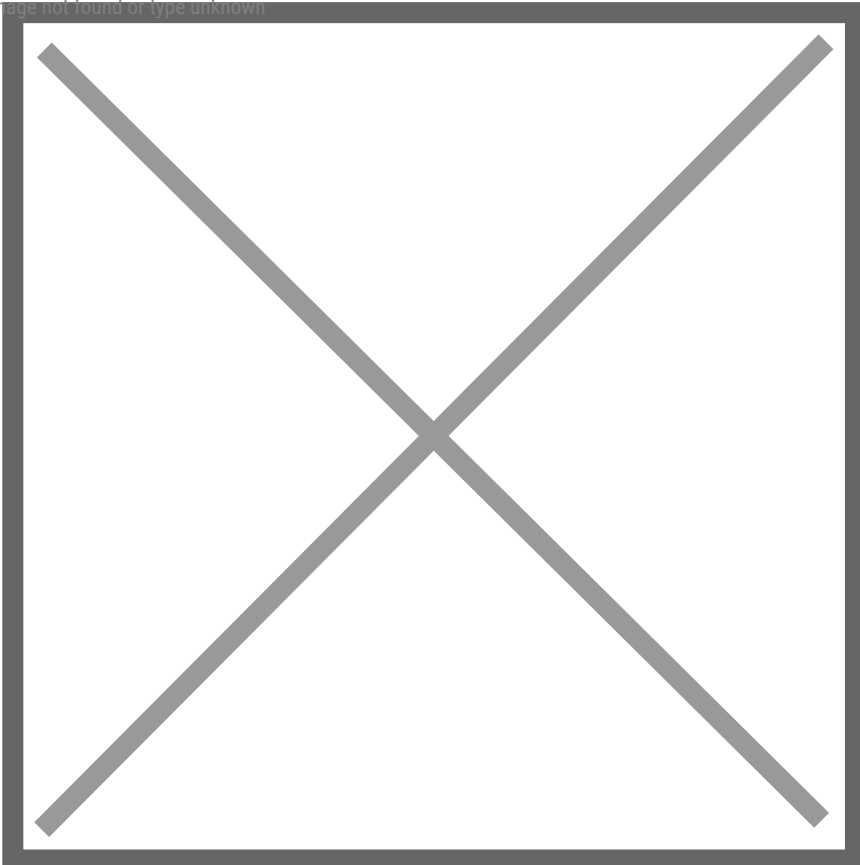
The Gemini Offshore Wind Park is located approximately 90 km north of Eemshaven (NL). It consists of two wind fields *Buitengaasts* and *ZeeEnergie* both comprising of 150 Siemens 4.0 Megawatt (MW) wind turbines. Two 220 kV AC export cables are transmitting the power of each wind farm to the onshore substation near Eemshaven.

In October 2014 TAGU has been awarded an Engineering- and a Charter Contract to perform the cable transport and installation of the Gemini shallow water export cable section. The shallow water cable consists of two parallel laid 15.5 km long subsea cables. Each of the 15.5 km cable stretches are split into two approx. 8000 m sections.

### Cable Data:

- 220 kV AC Cable;
- 3x1200 mm<sup>2</sup>;
- 95 kg/m;
- $\varnothing=252$  mm;
- LWL 2x48

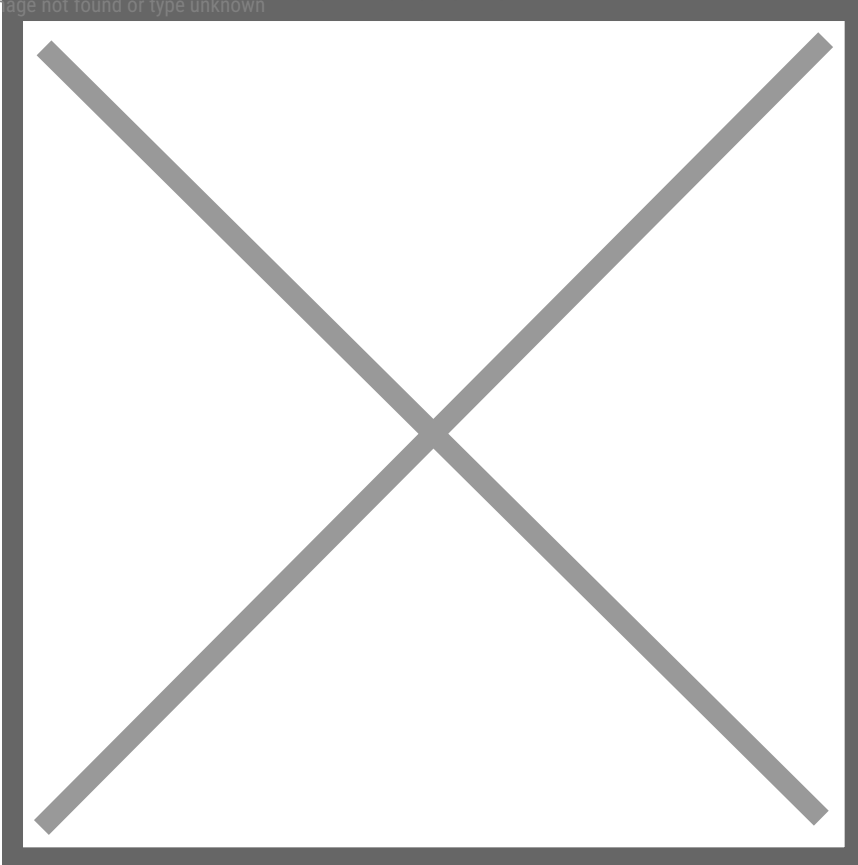
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**Deliverables:**

- Engineering for the contracted works
  - Method statements and procedures
  - HSE and Quality Documentation
  - Mooring calculation (cable loading and cable lay)
  - Cable calculation (loading and spooling / lay)
  - Towing documents and certificates
  - Drawings and equipment specifications
  - Vessel calculation (Sea fastening; Stability etc.)
- Loading 4x -8000 m subsea cable at Eemshaven
- Transportation to the installation locations on the tidal flats
- Spooling and hand-over of 2500 m / 5000 m of cable to 3<sup>rd</sup> parties.

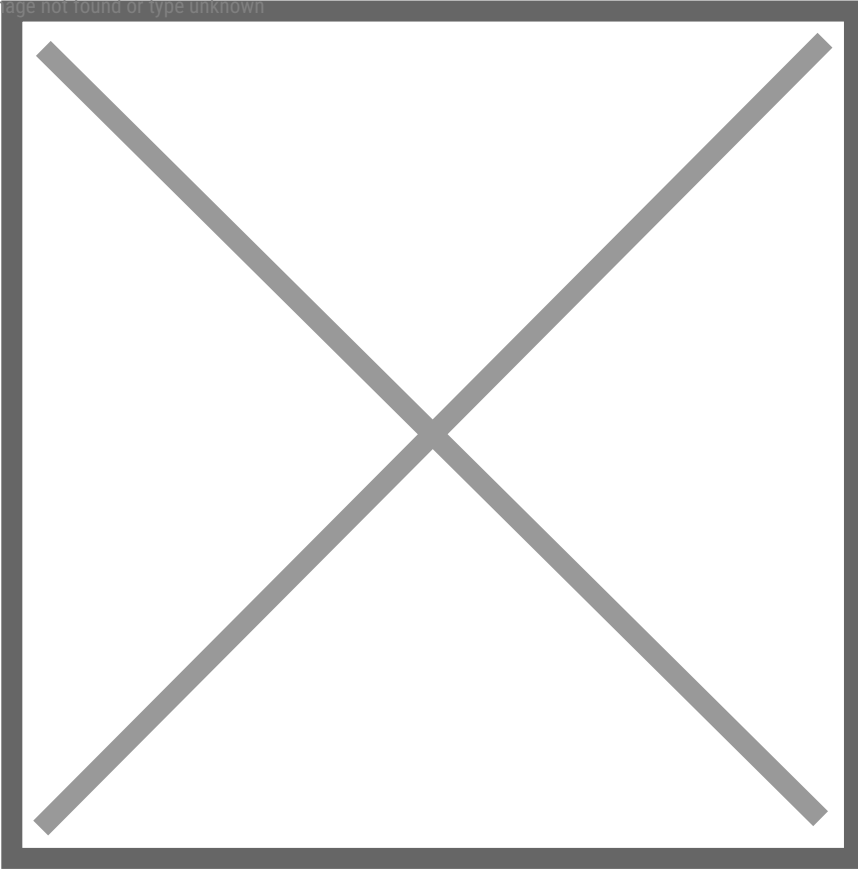
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**Equipment involved:**

- Cable Lay Barge -VETAG 8 (65x30 m)
  - Turntable (capacity 1000 t)
  - 10 t Track Tensioner (Parkburn)
  - Cable highway and loading tower
  - Accommodation and office container
- Multi-Purpose-Barge HELGOLAND II with 3 excavators 36 t for anchor handling
- Tug
- Multicat

- Support Vessel
- Crew Transfer Vessel

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October 2014 to June 2015 (Engineering and Construction Phase)

**{{ Auftraggeber }}** Van Oord Offshore Wind Projects B.V.

**{{ Auftragnehmer }}** TAGU - Tiefbau GmbH Unterweser

**{{ Eckdaten }}** Project Engineering; Mobilization of CLB; Loading, Transport and installation of 4× 8000 m subsea cables, each 850 t.

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