

Kriegers Flak – Combined Grid Solution

The world's first connection using offshore wind parks

Energinet.dk and 50Hertz plan to establish the world's first offshore interconnection by using the national grid connections to offshore wind-farms in the Baltic Sea.

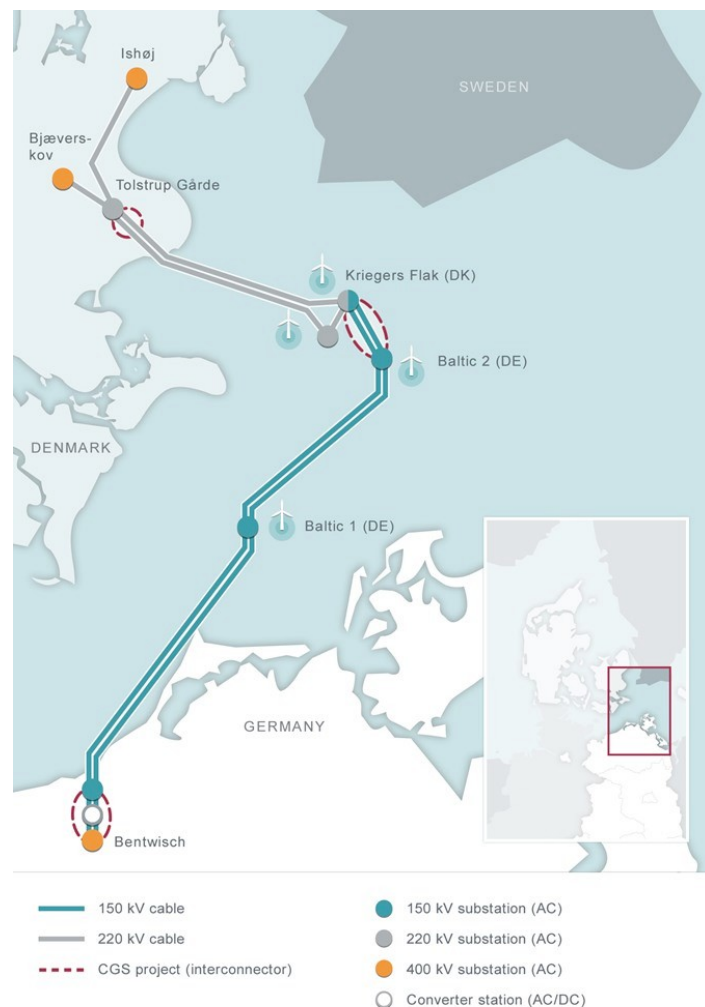
The "Kriegers Flak – Combined Grid Solution" will connect Eastern Denmark to Germany.

It should have a capacity of at least 400 MW.

The project partners expect construction to begin in 2017.

Operation is planned to start by the end of 2018.

The new interconnection will increase the security of supply and enhance the integration of regionally produced renewable energy and ultimately contributes to both countries' energy transitions.



Source: 50Hertz

The project

Germany already has two offshore wind farms in the area, Baltic 1 (48 MW) and Baltic 2 (288 MW), while Denmark is currently preparing to erect the offshore wind farm Kriegers Flak (600 MW). The wind farms Kriegers Flak and Baltic 2 are located less than 30 km away from each other and will be connected by two submarine cables to establish the interconnector.

As Eastern Denmark and Germany are two different synchronous areas, a frequency transformation is necessary. This will be done by two voltage source converters (VSC) that convert the alternating current (AC) from the Nordic synchronous area into direct current and directly back to AC, now adapted to the Continental European synchronous area.

Due to the different voltage levels of the Danish and German offshore wind farms, an offshore transformer (150 to 220 kV) is required which will be placed on an additional offshore platform located in the vicinity of one of the Danish offshore platforms.

Timeline

- Permit processes: until first half of 2017
- Procurement and ordering: Oct. 2014 - June 2016
- Construction, installation, testing: Jan. 2017- Dec. 2018

European support

The "Kriegers Flak – Combined Grid Solution" holds the status of a "project of common interest" (PCI), given by the European Commission. PCIs are priority projects with regards to bridging gaps in the infrastructure of the European power system and facilitating the development of a common European energy market.

In 2015, the European Commission confirmed eligibility of a revised technical concept for the interconnection project, which is now granted a financial support up to 150 million euros from the European Energy Programme for Recovery (EEPR).

More information

[Kriegers Flak – Combined Grid Solution](#), 50Hertz

[Kriegers Flak – Combined Grid Solution](#), Energinet.dk

[Factsheet Kriegers Flak](#), European Commission

Projects of common interest – [Interactive map](#)

European Energy Programme for Recovery - [Interactive map](#)

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