

Commission Decision (EU) 2020/2123 of 11 November 2020 granting the Federal Republic of Germany and the Kingdom of Denmark a derogation of the Kriegers Flak combined grid solution pursuant to Article 64 of Regulation (EU) 2019/943 of the European Parliament and of the Council (notified under document C(2020) 7948) (Only the Danish and German texts are authentic) (Text with EEA relevance)

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THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity⁽¹⁾ ('Electricity Regulation'), and in particular Article 64 thereof,

After informing the Member States of the Application,

Whereas:

1. **PROCEDURE**

- (1) On 1 July 2020, the Danish and German authorities submitted to the European Commission a request for derogation of the Kriegers Flak combined grid solution ('KF') pursuant to Article 64 of the Electricity Regulation.
- (2) On 7 July, the European Commission published the derogation request on its website⁽²⁾ and invited Member States and Stakeholders to provide comments until 31 August 2020. At the Council Energy Working Party of 13 July 2020, Member States were also informed that a derogation request had been submitted and that comments could be provided.

2. **THE KRIEGERS FLAK COMBINED GRID SOLUTION**

- (3) Kriegers Flak as a geographic area refers to a reef in the Baltic Sea spanning the economic zones of Denmark, Germany and Sweden. The reef creates relatively shallow waters, and in 2007 Denmark, Germany and Sweden were all interested to develop wind farms in the area. Initially, transmission system operators ('TSOs') from all three Member States assessed the possibility to create a joint project connecting

developments in the area. As of 2010, the project to build a wind farm connected to two countries (a so-called 'hybrid project') was only pursued by the Danish and German system operators.

- (4) According to the application for derogation, the main goal of designing KF as a hybrid project was to increase the use of the connections between the wind farms and their respective onshore grid, by making available this capacity for cross-zonal trade when it was not fully required for transporting electricity generated from wind farms to shore.
- (5) In late 2010 Energinet.dk (the Danish TSO) and 50Hertz (the German TSO for this area) signed a grant agreement over a contribution of EUR 150 million from the European Energy Programme for Recovery ('EEPR'). In 2013, KF was also included in the first list of projects of common interest ('PCI') as annexed to the Commission Delegated Regulation (EU) No 1391/2013⁽³⁾. The concept of KF, including the concept concerning the envisaged treatment of electricity flows in case of congestion ('congestion management') has been subject to intensive discussions with the involved national energy regulators and was also outlined in contacts with the European Commission.
- (6) KF as a wider project combines the following elements (see also figure 1 below):
 - (a) The Baltic 1 and Baltic 2 farms, both located in German areas of the Baltic Sea. Baltic 1 was commissioned in 2011 and has a capacity of 48 MW. Baltic 2 was commissioned in 2015 and has a capacity of 288 MW.
 - (b) The wind farm also called Kriegers Flak, located in Danish areas in the Baltic Sea. This wind farm of 600 MW capacity is planned for commissioning in 2022.
 - (c) The grid connection from the German wind farms to the German shore, with a capacity of ca. 400 MW, using alternating current at 150 kV voltage over a distance of 136 km, commissioned in 2011 and 2015 respectively.
 - (d) The grid connection from the Danish wind farm to the Danish shore (in the Denmark 2 bidding zone), with a capacity of 680 MW, using alternating current at 220 kV voltage over a distance of 77-80 km, commissioned in 2019.
 - (e) A back-to-back converter station in Bentwisch, Germany, asynchronously connecting the Nordic and Continental synchronous areas.
 - (f) Two high voltage alternating current cables linking the Kriegers Flak and Baltic 2 wind farms, with a capacity of 400 MW over a distance of 24,5 km.
 - (g) To link the Kriegers Flak and Baltic 2 platforms, both offshore platforms had to be expanded.
 - (h) A Master Controller for Interconnector Operation ('MIO'). The MIO controls the load flow through the back-to-back converter station in real time, triggers

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countertrading in case a congestion occurs due to wind generation which is higher than estimated, triggers curtailment of the offshore wind farms where required as a last resort, and adapts set point values for voltage and reactive power at the back-to-back station to ensure voltage stability. It also forecasts, on an hourly basis, the remaining transmission capacity to be made available to the market.

- (7) Of the above assets, the derogation request does not consider the wind farms as formally being part of the KF project (which therefore is considered as limited to the transmission network assets (c) to (h)).

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- (8) Furthermore, only assets (e) to (h) are directly related to ‘combining’ the national networks. Only those assets (marked as ‘KF CGS assets’ in figures 1 and 2) were therefore co-financed by EU funds.

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3. THE REQUESTED DEROGATIONS

- (9) The requested derogations all aim at allocating the capacity of the KF system at the bidding zone border between the Denmark 2 (DK2) and the German-Luxembourg (DE-LU) bidding zones with priority to the offshore wind farms directly connected to the KF system.
- (10) The applicants request derogation for the KF system from a number of requirements described below, all relating to the minimum available capacity for trade under Article 16(8) of the Electricity Regulation.

3.1. Article 16(8) of the Electricity Regulation

- (11) Article 16(8) of the Electricity Regulation sets out that transmission system operators shall not limit the volume of interconnection capacity to be made available to market participants as a means of solving congestion inside their own bidding zone or as a means of managing flows resulting from transactions internal to bidding zones. This paragraph shall be considered to be complied with where, for borders using a coordinated net transmission capacity approach, at least 70 % of the transmission capacity respecting operational security limits after deduction of contingencies, as determined in accordance with the capacity allocation and congestion management guideline, are available for cross-zonal trade. The German and Danish authorities request that this minimum percentage should not apply to the overall transmission capacity respecting operational security limits after deduction of contingencies. Instead, it should apply only to the capacity remaining after all capacity expected to be required for the transmission of production from the wind farms connected to the KF system to shore has been deducted ('residual capacity').
- (12) Thus, if of 400 MW transmission capacity, 320 MW were already needed to transport wind to the shore, pursuant to the derogation request only 80 MW shall be subject to the requirements under Article 16(8). Consequently, if at least 70 % of the 80 MW were made available for cross-zonal trade, this should, in view of the German and Danish authorities, be deemed sufficient to comply with the requirements of Article 16(8) of the Electricity Regulation. The capacity deducted from the total capacity before calculating the minimum capacity made available for trade in the day ahead timeframe shall be based on the wind production forecasts by both TSOs at the day ahead stage. Unused capacity after the day ahead capacity allocation shall be made available in the intraday market.
- (13) It should be noted that this approach is, as outlined in the request, currently included in the capacity calculation methodology of the Hansa capacity calculation