

**ENERGINET**

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MEMO

DK1-DE JOINT DECLARATION CONSULTATION OF COUNTERTRADE MODEL

Introduction

Energinet has decided to continue the usage of the special regulation methodology to also include countertrade related to the minimum capacities specified in the Joint Declaration. In order to ensure sufficient bids for the countertrade in all situations, Energinet is considering using the existing option of capacity auctions in those rare cases where they are deemed necessary by Energinet's control center. The choice of the model is based on the results of the stakeholder involvement and impact assessment process related to the implementation of the Joint Declaration, which was done in close cooperation with the German TSO TenneT.

Special regulation is the currently used method for countertrade on the Danish side of the DK1-DE border. The method, including the option of capacity auctions, has been approved by the Danish regulatory DERA and no formal approval of the continued use of this method is therefore required. Energinet would, however, like to continue the stakeholder involvement process by asking for feedback on the justification and selection to continue with the use of special regulation, with the possibility of using capacity auctions in rare situations where this would be required. This consultation document is issued to invite comments on the proposed countertrade model for up- and downward regulation in Energinet's control areas, following the requirements from the Joint Declaration between the Danish and German Ministries. This document only includes the countertrade model for the Energinet purposes, as it only relates to Energinet's control area.

This consultation is open to all interest stakeholders, who are invited to submit their comments by:

16 March 2018

24:00 (CET)

by sending them to Linette Linnemann at e-mail address: lin@energinet.dk specifying the subject :*"Consultation Response DK1-DE Joint Declaration"*

Stakeholders are invited to address questions, as well as provide any other comments, which they may deem appropriate. In order to identify your response, please include the following contact information on the top of your answer sheet: Name, Company, Address, Contact email, Phone and country.

Following the public consultation period, Energinet will issue a decision and publish all answers received from stakeholders. We advise stakeholders to claim confidentiality only on commercially sensitive information and to ensure that a non-confidential version is also submitted. Nevertheless, if you wish to submit confidential material, please put a word “CONFIDENTIAL” in the subject.

Related documents

- Final Impact assessment of different countertrade models for DK1-DE
<https://en.energinet.dk/About-our-news/News/2017/12/01/Energinet-and-TenneT-publish-final-impact-assessment-of-different-countertrade-models-for-DK1-DE>
- Material from stakeholder workshop on the 8th of November 2017 in Copenhagen
<https://en.energinet.dk/About-us/Events/Workshop-on-the-DK1-DE-border-081117>
- Material from stakeholder workshop on the 7th of September 2017 in Fredericia
<https://en.energinet.dk/About-us/Events/Workshop-on-the-Danish-German-border-DK1-DE-070917>

1. Background

The Danish Ministry of Energy, Utilities and Climate and the Federal Ministry of Economic Affairs and Energy of the Federal Republic of Germany together with the Danish Energy Regulatory Authority (DERA) and Bundesnetzagentur have agreed on a Joint Declaration¹.

The Joint Declaration aims to gradually increase the capacity between Denmark West (DK1) and Germany (DE) available to the day-ahead market by securing a minimum of available hourly import and export capacity (referred to as minimum capacities) in each hour on the interconnector.

The Joint Declaration was launched on the 3rd of July 2017 with a pilot project lasting until the end of November 2017, and will until 2020 increase the minimum capacities in a stepwise approach, as Figure 1 shows.

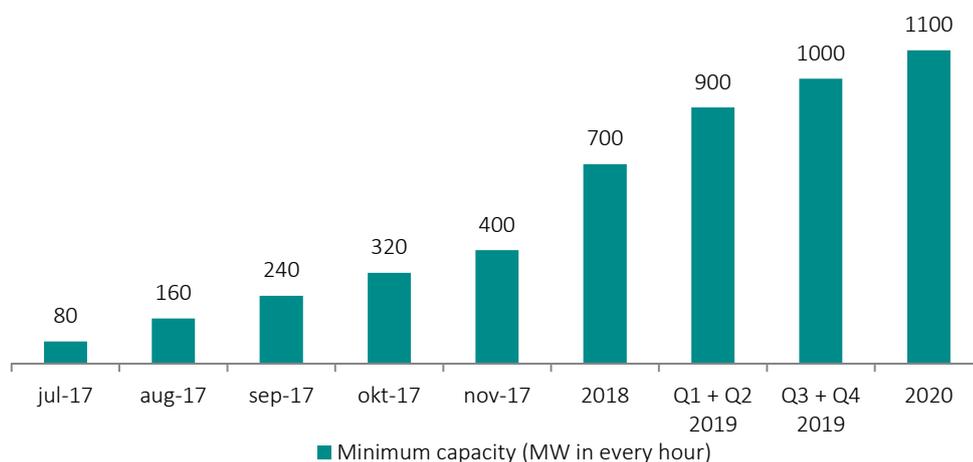


Figure 1: Required minimum of import- and export capacities on DK1-DE

Energinet and TenneT, as the relevant TSOs, are jointly responsible for the implementation of the Joint Declaration. The Joint Declaration specifies that the TSOs shall, in case of physical congestion, conduct countertrade to secure the minimum capacities. Currently, this countertrade is achieved by using existing methods on both sides of the border. In Denmark West,

¹ <http://efkm.dk/aktuelt/nyheder/nyheder-2017/juni-2017/dansk-tysk-aftale/>
<https://www.energinet.dk/Om-nyheder/Nyheder/2017/06/14/Faelleserklaering-sikker-kapacitet-paa-dansk-tysk-graense-paa-1100-MW>
<https://www.tennet.eu/de/news/news/guaranteeing-minimum-available-hourly-capacities-for-de-dk-west/>

Energinet uses the special regulation regime as part of the Nordic Regulating Power market and in Germany, TenneT acquires the necessary resources in the German intraday market.

It is envisaged to revise the Joint Declaration 12 months prior to the end of 2020. Thus, at the point of deciding on a countertrade model in 2018, the TSOs still would have to assume that the need for countertrading would no longer exist after 2020.

Currently both TSOs are using existing measures to secure the necessary amounts of countertrade. With increasing minimum capacities and the related risks of having to perform larger amounts of countertrade, existing measures might, however, not be suitable in the longer term. The TSOs have prepared an impact assessment of different possible models for countertrade and submitted it to the regulators by the end of November 2017.

Six different countertrade models were analysed as part of this impact assessment as summarized in Table 1 below. Relevant for both TenneT and Energinet are the CoCA model and the intraday auction models (opening and closing auctions). Relevant for Energinet only are the “trading on the intraday market” and the “special regulation” models. TenneT is already now trading on the intraday market and the special regulation regime is something that is not applicable on the German side of the border.

Model	Market	Relevant for
Counter Capacity Allocation (CoCA)	Intraday market by introducing explicit auction of capacity between day-ahead market and start of intraday market	TenneT, Energinet
Intraday Opening auctions	Intraday market by introducing regional or pan-European opening auctions before start of continuous intraday market	TenneT, Energinet
Intraday Closing auctions	Intraday market by introducing regional or pan-European closing auctions before gate closure for each hour	TenneT, Energinet
Energinet and TenneT active on the intraday market	Intraday market – continuous trading	Energinet, already currently used by TenneT
Special Regulation without capacity auctions	Regulating Power market	Energinet
Special Regulation with capacity auctions	Regulating Power market	Energinet

Table 1: Overview of countertrade models analysed in impact assessment

For the comparison of the different countertrade models at the DK1-DE border and the final selection of the preferred model it was intended to use a Weighted Scoring Model. One of the main feedbacks from the market participants at the workshop on the 8th of November was that there were still many outstanding issues for each countertrade model. In addition it became clear that the input to the Weighted Scoring Model would be evaluated differently – both in terms of the weight of each criterion and the score of each model– depending on the position and interest of the market participant.

The use of the Weighted Scoring Model has been beneficial in scoping, defining and evaluating each countertrade model, and has facilitated a good discussion with market participants, however Energinet considers that the Weighted Scoring Model has proven not to be an appropri-

ate tool for decision making due to the mentioned concerns. Energinet has therefore decided not to use the model for final decision making, and the justification for selecting Special Regulation with the option of capacity auctions is based on the following summarized reasoning from the Impact assessment:

Counter Capacity Allocation (CoCA) has a very long time horizon for implementation and hiring JAO for performing the auctions would require relatively costly investments on both TSO and JAO side. In addition, the model requires participants to be BRPs in both DK1 and Germany, and is vulnerable to low liquidity in the Nordic intraday market. As the auctions would happen rather shortly after day-head market closure, the model might lead to a higher arbitrage effect.

Intraday opening and closing auctions face the difficulty of the parallel European approval processes of Intraday cross-zonal gate opening and closure (IDCZGT) proposal and Intraday cross-zonal capacity pricing methodology (CZIDCP), which currently would delay the implementation of these models on the DK1-DE border substantially, perhaps as late as 2019. For the intraday opening auction, the implementation process would have to follow the European process and for the closing auctions, a completely new regional auction methodology would have to be initiated with limited chances for approval, as this model is not completely in line with CACM regulation and the currently suggested European models for intraday auctions.

For **Energinet trading on the intraday market** REMIT compliance is of course a necessity. Although it would probably be possible to ensure this through the right tender process for contracting a service provider to trade on Energinet's behalf and necessary transparency, there still remains a risk related to equal treatment of all market participants. In addition, the implementation would require a resource intensive tender process and constant monitoring on the TSO side.

2. Extension of the special regulation

Based on the results of these impact assessment and further evaluation, Energinet and TenneT have decided to continue with the use of the current methodologies.

On TenneT's side no consultation of current methodology is necessary. This consultation therefore only covers the extension of the special regulation regime used by Energinet to secure the necessary amounts of up- and downward regulation related to the Joint Declaration. Within this methodology Energinet continues to have the possibility to arrange capacity auctions – either in the morning and/or in the afternoon, in the rare situations where the capacity is needed to secure system security.

It should be mentioned here that independently of this extension of the usage of special regulation, special regulation will continuously be used on a voluntary basis in those cases where TenneT Germany asks for additional countertrade in excess of the minimum capacities agreed in the Joint Declaration.

The impact analysis shows that none of the considered countertrade models do fully secure all criteria evaluated, especially limiting the arbitrage effect, but countertrade close to operational hour and the requirements of physical delivery inherent to special regulation might have a dampening effect on the possibility of arbitrage between markets. In addition special regulation is already implemented and its extended usage only needs a few modifications in Energinet's system.

As underlined by the market participants at the workshops, there are generally five concerns regarding the special regulation model:

1. Limited market size
2. Imbalance netting,
3. One and two price model for imbalance settlement
4. Mixed marginal price and pay-as-bid
5. Transparency

In the following the handling of these concerns is described further.

2.1 Limited market size

Special regulation allows only the use of DK1 bids for countertrade. The other Nordic bids are restricted for use in the Nordic balancing market. Currently it is neither feasible nor desirable for the other Nordic TSOs to enable the participation of these bids in the special regulation market. Evaluation of the pilot phase has, however, shown increasing volumes of bids available for downward regulation in DK1, thus indicating sufficient liquidity for handling the countertrade also for higher amounts of minimum capacities. In case of potential lack of resources these can be solved with the capacity auctions.

2.2 Imbalance netting

Imbalance netting is performed by TSOs to avoid simultaneous activation of balancing power, i.e. mFRR, in opposite directions by taking the imbalances from the respective and adjacent control areas into account, in order to maximize social economic welfare. If TenneT requests downward regulation in DK1, Energinet will use the excess production from Germany to balance the Nordic areas, if upward regulation is required there and if interconnector capacity towards the Nordic area is available. This reduces the need for mFRR activation both in Denmark and in the other Nordic bidding-zones without affecting operational security, and optimizes the costs of handling imbalances.

The use of imbalance netting for FRR is also foreseen to a wider extent in Europe both for aFRR and mFRR. Currently all-TSOs are consulting a draft proposal for the implementation framework for a European platform for the imbalance netting process² in accordance with Article 22 of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (GLEB) which covers aFRR. The use of imbalance netting is also being proposed in the MARI (Manually Activated Reserves Initiative) project establishing a European platform for the exchange of balancing energy from frequency restoration reserves with manual activation. The use of imbalance netting will therefore continue unaffected of the suggested extended use of special regulation.

2.3 One- and two price system for imbalance settlement

As described in the impact assessment, one of the elements of the Danish regulating power market that currently enhances incentives for arbitrage for BRPs for consumption compared to the BRPs for productions is the system for settlement of production and consumption imbalances; the one- and two-price system³.

² https://consultations.entsoe.eu/markets/implementation-framework-imbalance-netting-process/consult_view/

³ Described in Market Regulation C2: Balancing Market at Energinet <https://en.energinet.dk/Electricity/Rules-and-Regulations/Market-Regulations>

The imbalance settlement system was also discussed in the “Marketmodel 2.0” process⁴, and the recommendation was to align the imbalance settlement to a one-price system, which has been further supported by the common Nordic TSO report “Full Cost of balancing”. The change of the imbalance settlements is expected to be completed as part of the implementation of the European Commission Electricity Balancing guideline by the end of 2020.

2.4 Mixed marginal price and pay-as bid remuneration principles

With the currently agreed methodology, it is only possible to provide one price per bid independently of in which market – Nordic balancing market or special regulation regime – the bid is activated. Market participants will therefore adjust their bidding strategy according to expectations of a need for countertrade or not. Energinet understands the concerns from market participants on this issue, and with the choice of special regulation as a countertrade model, it could be worthwhile to consider modifications to the design. There are several ways to solve this, for example allowing two prices (one marginal-price if the bid is used for balancing, one pay-as-bid if the bid is used for special regulation) for the same bid. Another way would be to “split” the merit order curve, and to handle bids used for balancing according to marginal price, and the same for the part of the bids used for special regulation. The change in the pricing of the bids has to be discussed with the market participants and Nordic TSOs, and would possibly be subject for regulatory approval.

2.5 Transparency

One major drawback of the current pay-as-bid pricing of the bids activated in the special regulation regime is the lack of transparency. The volumes of countertrade are available at Nord-Pool’s website and ENTSO-E’s transparency platform. Energinet is dedicated to provide full transparency for our markets. Currently no prices for special regulation are being published. Energinet is considering publishing prices to increase transparency. Thus, Energinet is evaluating whether the current practice should be changed. Energinet’s evaluation will be discussed with DERA. For now, DERA is not per se objecting to change the current practice, but requires a closer assessment of this.

3. Legal interpretation

The extension of the usage of the special regulation methodology to also cover the countertrade required because of the minimum capacity requirements of the Joint Declaration is embedded in both national, regional and European legislation and agreements. These are further described below.

3.1 National legislation

According to the Danish Electricity Supply (consolidated) Act. No. 418 of 25 April 2016 with subsequent amendments, §73a, the Danish regulator DERA has to approve Energinet’s methods. Special Regulation is approved by DERA, and is described in the Danish electricity Market Regulation C2⁵ describing how Energinet has organized the regulating power and balancing markets and outlines the rules for settling regulating and balancing power. No further approval of this Market Regulation C2 is therefore required. The option of having capacity auctions is described in the document “Ancillary Services to be delivered in Denmark.”⁶

⁴ Description of the project and report: <https://en.energinet.dk/About-our-reports/Reports/Market-Model-2-0>

⁵ <https://en.energinet.dk/Electricity/Rules-and-Regulations/Market-Regulations>

⁶ “Ancillary Services to be delivered in Denmark”: <https://en.energinet.dk/Electricity/Rules-and-Regulations>

3.2 Nordic regional agreements

Energinet is a part of the Nordic Regulating Power Market and the System Operation Agreement⁷ (SOA) update from 2017 states that the bids in the Nordic Regulating Power market are first and foremost used for balancing the Nordic area. Following the SOA Energinet can, if there are enough bids, offer the non-used bids for upward or downward regulation towards Tennet to solve network congestions as special regulation. However, this procedure shall not affect the Nordic regulation price, and the bids used for network reasons have to be remunerated according to pay-as-bid.

Thus the current Nordic agreement fully covers and allows the extension of the use of special regulation to cover the minimum capacities as agreed in the Joint Declaration as long as the requirements about pricing and price effect on Nordic regulation price are fulfilled. As mentioned in chapter 2.4 Energinet will discuss the pricing principles of the special regulation; however, this is to be approved by all Nordic TSOs.

3.3 European legislation

Commission Regulation (EU) 2015/1222 (CACM):

Energinet is together with neighbouring TSOs within the Capacity Calculation Region (CCR) obliged to develop a proposal for a common methodology for coordinated redispatching and countertrading before the 14th of March 2018 following Article 35 of the Commission Regulation (EU) 2015/1222 establishing a guideline on capacity allocation and congestion management (CACM). Energinet has as part of CCR Nordic⁸ and CCR Hansa⁹ recently consulted these draft proposals, and the proposed methodologies ensure a higher coordinated use of countertrading and redispatching to relieve physical congestions between the TSOs. The methodologies following CACM Article 35 specify the methodology for the coordination, rather than which sources and markets are committed to provide the upward and downward regulation.

It is therefore still up to the individual TSO to decide which markets and mechanisms can be used to provide the necessary redispatching and countertrading. In that sense the proposal does therefore not hinder the continued use of the Nordic mFRR market to conduct countertrading and redispatching. Due to the nature of this proposal, the use of special regulation for countertrade does not in any way hinder the purposes of the CCR Hansa's, or other relevant CCRs', proposals for countertrade and redispatch.

Commission Regulation (EU) 2017/1485 (SO GL)

The Regulation establishing a guideline on electricity transmission system operation (SO GL) links the methodology developed in CACM Article 35 with Article 2 for preparation, activation and coordination, Article 76 for the proposal for regional operational security analysis coordination and Article 78 for regional operational security coordination of the SO GL. As described above, the development of these methodologies involve the coordination and use of resources among the TSOs, but does not describe the markets and mechanisms that can be used for providing the countertrading.

This proposal for a countertrade model does not hinder the proposal of Energinet's and neighbouring TSOs proposals following the SO GL.

⁷ Available at <https://www.entsoe.eu/publications/system-operations-reports/nordic/Pages/default.aspx>

⁸ <https://consultations.entsoe.eu/markets/draft-proposal-for-a-coordinated-redispatching-and/>

⁹ <https://consultations.entsoe.eu/markets/coordinated-redispatching-and-countertrading-metho/>

Commission Regulation (EU) 2017/2195 (EBGL)

The Regulation establishing a guideline on electricity balancing (EBGL) provides the provisions for an interconnected internal energy market, and Article 20 specifies the provision for the European platform for the exchange of balancing energy from frequency restoration reserves with manual activation (mFRR). The proposal has to be submitted for NRA approval by the 23 of November 2018. The TSOs have launched the MARI¹⁰ project, which develop the proposal according to Article 20 of EBGL.

Energinet is currently using mFRR resources to conduct the countertrade with TenneT, and the use of these resources would be further supported by this common European Market platform. The development and implementation of the platform will possible require some modification to the current use of mFRR in the Nordic area, however it is expected that the mFRR platform will be implemented after the termination of the Joint Declaration, so the development of the platform will have no direct impact on this proposal.

¹⁰ Call for input consultation in December 2017 <https://consultations.entsoe.eu/markets/mari-first-consultation-call-for-input/>