European Network of
Transmission System Operators
for Electricity

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Energinet, Fingrid, Statnett and Svenska kraftnät proposal for the methodology for a market-based allocation process of cross-zonal capacity for the exchange of aFRR balancing capacity in accordance with Article 38(1) of the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

Date of the approval

DISCLAIMER

This document is released on behalf of Energinet, Fingrid, Statnett and Svenska kraftnät only for the purposes of the public consultation on the proposal for the methodology for a market-based allocation process of cross-zonal capacity for the exchange of aFRR balancing capacity in accordance with Article 38(1) of the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing. This version of the proposal for the methodology for a market-based allocation process of cross-zonal capacity for the exchange of aFRR balancing capacity does not in any case represent a firm, binding or definitive TSOs' position on the content.

Contents

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Energinet, Fingrid, Statnett and Svenska kraftnät, taking into account the following,

Whereas

(1) This document is a common proposal developed by the Transmission System Operators Energinet, Fingrid, Statnett and Svenska kraftnät only (hereinafter referred to as "Nordic TSOs") regarding a proposal for the methodology for a market-based allocation process of cross-zonal capacity (hereinafter "CZC") for the exchange of automatic frequency restoration reserve (hereinafter referred to as "aFRR") balancing capacity in the Nordic capacity calculation region. This proposal is hereinafter referred to as "Proposal".

(2) The Proposal takes into account the general principles and goals set in the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (hereinafter referred to as "EB GL"). It also takes into account the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereinafter referred to as "SO GL").

(3) The objectives of EB GL are, inter alia, as stated in Article 3(1) thereof: (a) fostering effective competition, non-discrimination and transparency in balancing markets; (b) enhancing efficiency of balancing as well as efficiency of European and national balancing markets; (c) integrating balancing markets and promoting the possibilities for exchanges of balancing services while contributing to operational security; (d) ensuring that the procurement of balancing services is fair, objective, transparent and market-based, avoids undue barriers to entry for new entrants, fosters the liquidity of balancing markets while preventing undue distortions within the internal market in electricity.

(4) The Nordic TSOs intend to exchange aFRR capacity and have for that reason developed common harmonized rules and processes for this exchange and procurement, as described in the separate proposal for the establishment of common and harmonized rules and processes for the exchange and procurement of aFRR balancing capacity in accordance with Article 33(1) of EB GL.

(5) The Nordic TSOs intend to allocate CZC in order to secure this exchange of aFRR capacity. Thereby the Proposal fulfils Article 38(1) of EB GL, whereby the process for market-based allocation is chosen, and Article 41(1) of EB GL which then requires a proposal for the methodology of this allocation process.

(6) Pursuant to Article 5(3) (g) and (h) of EB GL, the Proposal is subject to approval by each relevant regulatory authority in accordance with Article 27 of Directive 2009/72/EC.

(7) The Proposal shall follow the general requirements listed in Article 38 of EB GL. Of particular note, pursuant to Article 38(2)(a) of EB GL, the Proposal shall include the bidding zone borders, the market timeframe, the duration of application and the methodology to be applied.

(8) Pursuant to Article 41(1) of EB GL, the Proposal shall include the following elements:
a. the notification process for the use of the market-based allocation process;

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b. a detailed description of how to determine the actual market value of CZC for the exchange of FRR balancing capacity, and the forecasted market value of CZC for the exchange of energy;
c. a detailed description of the pricing method, the firmness regime and the sharing of congestion income for the CZC that has been allocated to bids for the exchange of FRR balancing capacity via the market-based allocation process;
d. the process to define the maximum volume of allocated CZC for the exchange of FRR balancing capacity pursuant to Article 41(2) of EB GL.

(9) Article 41 of EB GL further specifies requirements the Proposal must follow or take into account: (i) if contracting is done more than two days in advance of the provision of the balancing capacity, then the volume of CZC allocated should be limited to 10% of the available transmission capacity of the previous calendar year between two bidding zones; (ii) the methodology can be based on a comparison of the actual market value of CZC for the exchange of balancing capacity and the forecasted market value of the cross-zonal for the exchange of energy; (iii) the methodology shall ensure the equal treatment of the CZC allocated for the exchange balancing capacity with that allocated for the exchange of energy; (iv) the CZC allocated for the exchange of balancing capacity shall only be used for that purpose and the associated exchange of balancing energy.

(10) The calculation of the market value of CZC shall follow the requirements stated in Article 39 of EB GL. Of relevance to the Proposal are: (i) the market value of the CZC shall be based on the actual or forecasted market values of CZC; (ii) the forecasted market value should be based on either transparent market indicators or an accurate and reliable forecasting methodology, expected differences in day-ahead market prices, and include other relevant factors that influence generation and demand, as appropriate; (iii) relevant regulatory authorities may review the efficiency of the methodology and set limits different to those in Article 41(2).

(11) Pursuant to Article 12(3) (h) and (i) of EB GL, the Proposal shall take into account that the Nordic TSOs shall publish, as soon as it becomes available, information on the allocation of CZC for the exchange of aFRR capacity and information on the use of this CZC.

(12) The Proposal generally contributes to the achievement of these objectives stated in EB GL by:
a. Fostering effective cross border competition, market liquidity and a level playing field for balancing service providers across the Nordic region;
b. Improving transparency of the allocation of transmission capacity for balancing purposes between the Nordic scheduling areas/bidding zones;
c. Enhancing efficiency of balancing by enabling effective and market-based allocation of reserves between all scheduling areas within the Nordic region while contributing to operational security by improving the allocation of reserves necessary for secure balancing.

(13) In conclusion, the Proposal contributes to the general objectives of EB GL to the benefit of all market participants and electricity end consumers.

SUBMIT THE FOLLOWING PROPOSAL TO ALL RELEVANT REGULATORY AUTHORITIES:

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Title 1
General provisions

Article 1
Subject matter and scope

1. The Proposal shall be considered as the common proposal of Energinet, Fingrid, Statnett and Svenska kraftnät in accordance with Article 38 and 41 of EB GL.
2. The Proposal shall apply only for the exchange of aFRR balancing capacity.
3. The Proposal shall apply to all existing and future bidding zone borders within the Nordic capacity calculation region and market time units and all system states defined in Article 18 of SO GL except for those bidding zones and market time units:
    a) for which market activities have been suspended;
    b) where the Nordic TSOs mutually agree to exclude or add bidding zone borders due to operational efficiency.

Article 2
Definitions and interpretation

1. For the purposes of the Proposal, terms used in this document shall have the meaning of the definitions included in Article 2 of EB GL, Article 2 and 3 of SO GL, Article 2 of Regulation (EU) 2015/1222 and of Regulation (EC) 714/2009, Directive 2009/72/EC, and Commission Regulation (EU) 543/2013.
2. In addition, in the Proposal, unless the context requires otherwise, the following terms shall have the meaning below:
    a) Market time unit (hereinafter "MTU") means the time unit for the Nordic aFRR capacity market which equals the day-ahead market time unit (i.e. the period for which the market price is established)
3. In the Proposal, unless the context requires otherwise:
    a) the singular indicates the plural and vice versa;
    b) the table of contents and headings are inserted for convenience only and do not affect the interpretation of the Proposal; and
    c) any reference to legislation, regulation, directive, order, instrument, code or any other enactment shall include any modification, extension or re-enactment of it then in force.

Title 2
Proposal for market-based allocation process of cross-zonal capacity for the exchange of aFRR balancing capacity

Article 3
Notification process for the use of the market-based allocation process

Before implementing the Proposal, all European TSOs shall be informed through an announcement via ENTSO-E. This information will include a detailed description of the approved methodology and time for entering into operation.

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Article 4
Determining the actual CZC market value for exchange of balancing capacity and the forecasted CZC market value for exchange of energy

1. The actual market value of CZC for the exchange of balancing capacity between two bidding zones shall be calculated per MTU, and based on the aFRR capacity bids submitted to and accepted by the capacity procurement optimisation function in accordance with the separate proposal regarding Article 33(1) of EB GL.
2. The forecasted market value of CZC used for exchange of energy between two bidding zones are defined per MTU and shall be calculated based on the difference in market clearing prices of the day-ahead market on the reference day.
3. The reference day will be the day prior to the day the aFRR balancing capacity bids will be valid unless the market conditions are known to be completely different.
4. Adjustments of the price difference of the reference day can be made based on values of relevant market indicators that are publicly available to all market participants.
5. The detailed rules for defining the reference day and adjustments of the price difference according to Articles 4(3) and 4(4) shall be pre-determined and transparent. The rules may be changed based on an analysis of the performance of existing rules, and these changes shall be notified to market participants in advance of their implementation.

Article 5
Defining the maximum volume of allocated cross-zonal capacity

1. A maximum of 10 percent of the forecasted day-ahead market transmission capacity may be reserved between the bidding zones of the Nordic synchronous area. This is to limit internal congestions impacting the day-ahead market due to activation of aFRR which has been enabled by the exchange of aFRR capacity and to limit the impact of the aFRR allocation on the day-ahead market..
2. Additional transmission constraints may be provided in order to avoid the distribution of procured aFRR between bidding zones resulting in situations that are not considered secure from a technical or operational perspective.

Article 6
Determining the allocated volume of cross-zonal capacity for exchange of balancing capacity

1. The allocation of CZC for the exchange of balancing capacity is determined simultaneously with the selection of balancing capacity bids by the procurement optimisation function.
2. The procurement optimisation function minimises the overall balancing capacity procurement costs pursuant to Article 58(3) of EB GL.
3. CZC shall be allocated to the market where the social welfare is expected to be highest and the procurement optimisation function will increase the allocated CZC to the balancing capacity market until at least one of the following boundary conditions are met:
    a) The marginal value of the CZC for exchange of balancing capacity pursuant to Article 4 is equal or smaller than the forecasted value of CZC for exchange of energy pursuant to Article 4, taking the uplift in Article 6(4) into account;

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b) The allocated CZC is equal to the maximum volume as defined in Article 5.

4. An uplift will be placed on the market value of CZC used for balancing energy calculated according to Article 4, in order to take into account the uncertainty of this market value.
   - if there is no forecasted day-ahead market price difference between the two bidding zones, the value of the uplift will be 0.1 EUR/MWh;
   - if there is a forecasted day-ahead market price difference between the two bidding zones, the value of the uplift will be the forecasted price difference between the two bidding zones plus 1 EUR/MWh.

Article 7
Publication of information

1. The CZC allocated for the exchange of aFRR capacity for each MTU on the following day will be published after the Net Transmission Capacities have been submitted to the day-ahead market together with the market values used as a basis for the allocation process.
2. The Nordic TSOs will, based on the aFRR capacity bid data, estimate the reduction in procurement costs compared to fulfilling the reserve requirements of the FRR dimensioning process without allocating CZC for exchange of balancing capacity. These estimated costs and benefits will be published within a week after the delivery day.

Article 8
Firmness

1. The transmission constraints subject to Article 5 shall be firm as soon as these are submitted to the procurement optimisation function.
2. The costs of ensuring firmness or in the case of curtailment of firm CZC in the event of force majeure or emergency situations, in accordance with paragraph 1, shall be borne by the relevant TSOs. These costs includes the additional costs from the procurement of capacity due to the non-availability of the balancing capacity given the curtailment of CZC.

Title 3
Final provisions

Article 9
Publication and implementation of the Proposal

1. The Nordic TSOs shall publish the Proposal without undue delay after its approval by all national regulatory authorities in the Nordic capacity calculation region.

2. The Nordic TSOs shall implement the Proposal no later than 12 months after the approval by all regulatory authorities in the Nordic capacity calculation region in accordance with Article 5(3) of EB GL.

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3. Each TSO shall implement the Proposal as common and harmonized rules and processes and as a common function enabling exchange of frequency restoration reserves with automatic activation between bidding zones in the Nordic capacity calculation region.

Article 10
Language

The reference language for the Proposal shall be English. For the avoidance of doubt, where TSOs need to translate the Proposal into their national language(s), in the event of inconsistencies between the English version published by TSOs in accordance with Article 7 of EB GL and any version in another language, the relevant TSOs shall, in accordance with national legislation, provide the relevant national regulatory authorities with an updated translation of the Proposal.

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