
All TSOs' of CCR Nordic proposal for a methodology for a market-based allocation process of cross-zonal capacity for the exchange of balancing capacity in accordance with Article 41(1) of the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

15 April 2019

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All TSOs of Nordic Capacity Calculation Region, taking into account the following,

Whereas

- (1) This document is a common proposal developed in accordance with Article 41(1) of Commission Regulation (EU) 2017/2195 of 23 November establishing a guideline on electricity balancing (hereafter referred to as the “EB Regulation”) by all Transmission System Operators (hereinafter referred to as “TSOs”) in the geographic area covering Nordic capacity calculation region (hereafter referred to as “CCR Nordic”) as defined in accordance with Article 15 of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereafter referred to as “CACM Regulation) regarding a proposal for the methodology for a market-based allocation process of cross-zonal capacity (hereinafter referred to as “CZC”) for the exchange of balancing capacity in the CCR Nordic. This proposal is hereinafter referred to as “Proposal”.
- (2) The Proposal takes into account the general principles and goals set in the EB Regulation as well as the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereafter referred to as “SO Regulation”), the CACM Regulation and Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity (hereafter referred to as “Regulation (EC) No 714/2009”).
- (3) The goal of the EB Regulation is to establish an EU-wide set of technical, operational and market rules to govern the functioning of electricity balancing markets. It sets out rules for the procurement of balancing capacity, the activation of balancing energy and the financial settlement of balance responsible parties. It also requires the development of harmonised methodologies for the allocation of CZC for balancing purposes. Such rules will increase the liquidity of short-term markets by allowing for more cross-zonal trade and for a more efficient use of the existing grid for the purposes of balancing energy.
- (4) The TSOs intend to exchange balancing capacity and have for that reason developed common and harmonised rules and processes for this exchange and procurement. To secure this exchange of balancing capacity the TSOs will allocate CZC using market-based allocation process. The Proposal shall define the details of market-based allocation methodology.
- (5) The Proposal shall include the following elements: (i) the notification process for the use of the market-based allocation process; (ii) a detailed description of how to determine the actual market value of CZC for the exchange of balancing capacity, and the forecasted market value of CZC for the exchange of energy; (iii) 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 balancing capacity via the market-based allocation process; (iv) the process to define the maximum volume of allocated CZC for the exchange of balancing capacity.
- (6) CZC allocated shall be limited to 10 % of the available capacity for the exchange of energy of the previous relevant calendar year between the respective bidding zone. For new interconnectors this will be 10 % of the total installed technical capacity of these new interconnectors. The

CZC allocated for the exchange of balancing capacity will be used only for the exchange of balancing capacity and the associated exchange of balancing energy.

- (7) The methodology for market-based allocation is based on a comparison of the actual market value of CZC for the exchange of balancing capacity and the forecasted market value of the CZC capacity for the exchange of energy. The pricing method, the firmness regime and sharing of congestion income for CZC that has been allocated for the exchange of balancing capacity ensures equal treatment with CZC allocated for the exchange of energy.
- (8) The calculation of the market value of CZC shall apply the following requirements: (i) the market value of the CZC shall be based on the actual or forecasted market values of CZC; (ii) the actual market value of CZC for the exchange of balancing capacity shall be calculated based on balancing capacity bids submitted to the capacity procurement optimisation function; (iii) the forecasted market value shall be based on the use of forecasting methodology enabling the accurate and reliable assessment of the market value of CZC based on expected differences in day-ahead market prices, and include additional relevant factors that influence generation and demand, where appropriate. In addition, the TSOs will collect information for reviewing the efficiency of the forecasting methodology, including a comparison of forecasted and actual market values.
- (9) The TSOs shall publish, as soon as it becomes available, information on CZC allocation for the exchange of balancing capacity and, as well as information on the use of CZC for the exchange of balancing capacity.
- (10) Article 5(5) of the EB Regulation requires that the expected impact of the Proposal on the objectives of the EB Regulation is described. The impact is presented below (points (11) to (15) of this Whereas Section).
- (11) The Proposal contributes and does not in any way hamper the achievement of the objectives of Article 3 of the EB Regulation. In particular, the Proposal serves the objectives of fostering effective competition, non-discrimination and transparency in balancing markets (Article 3(1)(a) of the EB Regulation), enhancing efficiency of balancing as well as efficiency of European and national balancing markets (Article 3(1)(b) of the EB Regulation), integrating balancing markets and promoting the possibilities for exchanges of balancing services while contributing to operational security (Article 3(1)(c) of the EB Regulation), contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union while facilitating the efficient and consistent functioning of day-ahead, intraday and balancing markets (Article 3(1)(d) of the EB Regulation) and 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 (Article 3(1)(e) of the EB Balancing).
- (12) The Proposal fosters effective competition, non-discrimination and transparency in balancing markets (Article 3(1)(a) of the EB Regulation) by creating the regional Nordic capacity market with common and harmonised rules and processes for the procurement and exchange of balancing capacity and allocating CZC for that common market. This Proposal together with

the common and harmonised rules and processes for the exchange and procurement of balancing capacity developed in accordance with Article 33 of the EB Regulation creates the common Nordic platform for the procurement and exchange of balancing capacity. The Nordic balancing capacity market will contribute to non-discriminatory, effective cross-zonal border competition, market liquidity and a level playing field for balancing capacity providers across the Nordic synchronous area. Transparency will be ensured by requirement set in this Proposal. Transparency of the use of CZC for balancing purposes will be improved with the establishment of the common Nordic balancing capacity market and there will be clear rules for how and when CZC will be allocated.

- (13) The Proposal enhances efficiency of balancing as well as efficiency of European and national balancing markets (Article 3(1)(b) of the EB Regulation) and contributes to the objective of integrating balancing markets and promoting the possibilities for exchanges of balancing services while contributing to operational security (Article 3(1)(c) of the EB Regulation) as the allocation of CZC together with the common and harmonised rules and processes for the exchange and procurement of balancing capacity developed in accordance with Article 33 of the EB Regulation enhances efficiency of balancing by enabling effective and market-based allocation of reserves between bidding zones within the CCR Nordic and contributes to operational security by improving the allocation of reserves necessary for secure balancing.
- (14) The Proposal contributes to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union while facilitating the efficient and consistent functioning of day-ahead, intraday and balancing markets (Article 3(1)(d) of the EB Regulation) since it implements market-based allocation process of CZC where market value of CZC will be calculated taking into account the forecasts of the day-ahead market value of CZC and applied in Nordic market for balancing capacity to define allocated CZC.
- (15) The Proposal ensures 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 (Article 3(1)(e) of the EB Balancing) since the TSOs propose establishment of a common Nordic balancing capacity market by applying market-based allocation process for CZC.
- (16) In conclusion, the Proposal contributes to the general objectives of the EB Regulation to the benefit of all market participants and electricity end consumers.

SUBMIT THE FOLLOWING PROPOSAL TO ALL REGULATORY AUTHORITIES OF CCR NORDIC:

TITLE 1

General provisions

Article 1

Subject matter and scope

1. The Proposal shall be considered as the common proposal from the TSOs for the application of market-based allocation process for the exchange of balancing capacity in accordance with Article 41 of the EB Regulation taking into account calculation of market value of CZC in accordance with Article 39 of the EB Regulation.
2. The Proposal covers the bidding zones and bidding zone borders of the CCR Nordic as defined in accordance with Article 15 of the CACM Regulation.
3. The Proposal shall apply only for the exchange of balancing capacity.
4. The scope of the Proposal does not extend to the assignment of roles and responsibilities to specific parties. The governance framework for specific roles or responsibilities and TSO-TSO settlement rules are out of scope of the Proposal. These aspects shall be defined by the TSOs, where required in accordance with Article 33 and Article 38 of the EB Regulation.
5. The implementation of the allocation of CZC applying the market-based allocation methodology is a voluntary initiative by two or more TSOs or at the request of their relevant regulatory authorities in accordance with Article 37 of Directive 2009/72/EC and is therefore not mandatory.

Article 2

Definitions and interpretation

1. For the purposes of the Proposal, terms used in this Proposal shall have the meaning of the definitions included in Article 2 of the EB Regulation, Article 3 of the SO Regulation and Article 2 of the CACM Regulation, Regulation (EC) 714/2009, Commission Regulation (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council (hereafter referred to as "Transparency Regulation") and Directive 2009/72/EC.
2. In addition, in the Proposal, unless the context requires otherwise, the following terms shall have the meaning below:
 1. "market time unit (MTU)" means the market time unit for the Nordic balancing capacity market, which equals the MTU applied in day-ahead market timeframe;
 2. "reference day" means the day which is used to define forecasted value of CZC; and
 3. "mark-up" means addition to the forecasted market value of CZC calculated in order to take into account the uncertainty in the forecasted market value of CZC during application in the capacity procurement optimisation function.
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 CZC for the exchange of balancing capacity

Article 3

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

1. The TSOs shall notify Transmission System Operator(s) located in the Nordic synchronous area about establishment of Nordic balancing capacity market in accordance with Article 150 of the SO Regulation. This notification shall include:
 - a) transmission system operators involved;
 - b) expected date for the balancing capacity market pursuant to Article 33(1) of the EB Regulation with the CZC allocation to enter into operation;
 - c) expected amount of power interchange due to cross-zonal balancing capacity activation process;
 - d) reserve type and maximum amount of exchange of balancing capacity; and
 - e) timeframe of exchange of balancing capacity.
2. The TSOs shall make the notification at least 3 months before the CZC allocation process enters into operation.

Article 4

Maximum volume of allocated CZC for the exchange of balancing capacity

1. A maximum of 10 % of the forecasted CZC for day-ahead timeframe shall be allocated between the bidding zones of the CCR Nordic for the exchange of balancing capacity. The TSOs shall use latest available CZC calculated for day-ahead timeframe when setting the maximum volume for CZC allocation.
2. CZC allocated for the exchange of balancing capacity shall be used only for the exchange of balancing capacity and associated exchange of balancing energy.

Article 5

Determination of the market value of CZC

1. The market value of CZC for exchange of balancing capacity shall be based on a comparison of the actual market value of CZC for the exchange of balancing capacity and the forecasted market value of CZC for the exchange of energy.
2. The actual market value of CZC for the exchange of balancing capacity between two bidding zones in the balancing capacity market shall be calculated for each MTU.

When calculating the actual market value of CZC for exchange of balancing capacity, the balancing capacity bids for each bidding zone submitted and accepted by the balancing capacity procurement

optimisation function shall be used. The balancing capacity procurement optimisation function has been set in common and harmonised rules and processes for the exchange and procurement of balancing capacity as defined in accordance with Article 33(1) of the EB Regulation.

3. The forecasted market value of CZC used for exchange of energy between two bidding zones in the day-ahead market timeframe are defined for each MTU.

When calculating the forecasted market value of CZC in day-ahead market timeframe the difference in market clearing prices for each bidding zone of the day-ahead market timeframe on the reference day are used.

4. The reference day shall be the latest day, where the clearing prices for each day-ahead market timeframe are available for each bidding zone.
5. The TSOs shall monitor the efficiency of the forecasting methodology, including a comparison of the forecasted and actual market values of the CZC for the energy and take appropriate actions, where needed.

Article 6

Determination of the allocated volume of CZC for the exchange of balancing capacity

1. The balancing capacity market procurement optimisation function shall allocate CZC for the exchange of balancing capacity simultaneously with the selection of balancing capacity bids.
2. The objectives of the balancing capacity market procurement optimisation function are:
 - a. make sure that CZC is allocated to the market, i.e. day-ahead or balancing market, where the socioeconomic welfare is expected to be highest; and
 - b. minimises the overall balancing capacity procurement costs of all jointly procured balancing capacity for the CCR Nordic in accordance with Article 58(3) of the EB Regulation.
3. In the capacity procurement optimisation process, bid selection together with the CZC allocation are optimised to maximize socioeconomic welfare given the constraints defined in common and harmonised rules and processes for the exchange and procurement of balancing capacity in accordance with Article 33 of the EB Regulation. The procurement optimisation shall minimise the overall costs of procuring the demanded volume of balancing capacity. The overall costs include the cost of balancing capacity bids and cost of allocating CZC to exchange of balancing capacity calculated as allocated volume multiplied with forecasted market value of CZC for each bidding zone border.
4. An mark-up will be added to the forecasted market value of CZC calculated in accordance with Article 5(3), in order to take into account the uncertainty of the forecasted market value of CZC. Mark-ups are defined as follows:
 - a) if there is no forecasted price difference between two bidding zones when calculating the forecasted market value of CZC in accordance with Article 5(3), the added mark-up on the forecasted market value of CZC will be 0.1 EUR/MWh; and
 - b) if there is a forecasted price difference between two bidding zones when calculating the forecasted market value of CZC in accordance with Article 5(3), the added mark-up on the forecasted market value of CZC will be 1 EUR/MWh.

5. Mark-up shall be added to the forecasted market value of CZC to be applied in the capacity procurement optimisation function.

Article 7 Pricing of CZC

1. The price of CZC allocated for the exchange of balancing capacity shall be calculated separately for each MTU, bidding zone border and balancing capacity product, i.e. up and downward balancing capacity product separately.
2. The price of CZC shall equal the difference between cross-zonal marginal price of the bidding zones separated by a bidding-zone border with CZC allocated for exchange of balancing capacity. If the settlement of procured balancing capacity is not settled based on cross-zonal marginal price, the price shall be based on the difference between the highest bid price of accepted balancing capacity bids in each bidding zone.

Article 8 Firmness regime

1. Allocated CZC for the exchange of balancing capacity shall be firm after the selection of upward balancing capacity bids or downward balancing capacity bids by the capacity procurement optimisation function in accordance with Article 33(3) of the EB Regulation.
2. CZC for allocation shall be firm as soon as submitted to the balancing capacity procurement optimisation function.
3. 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 Article 8(2), shall be borne by the relevant TSOs. These costs include the additional costs from the procurement of balancing capacity due to the non-availability of the balancing capacity given the curtailment of CZC.
4. TSOs shall not increase the reliability margin calculated pursuant to Article 21 of the CACM Regulation due to the exchange of balancing capacity for frequency restoration reserves.

Article 9 Sharing of congestion income

1. For each bidding zone border the congestion income is calculated as the price of CZC pursuant to Article 8 multiplied with the volume of balancing capacity that have been exchanged for the relevant product and direction on that bidding zone border.
2. The TSOs on each side of a bidding zone border with CZC allocated for balancing capacity shall receive their share of congestion income based on a 50%-50% sharing key. In specific cases the concerned TSOs may also use a sharing key different from 50%-50%. Such cases may involve, but are not limited to, different ownership shares or different investment costs. If the demand of balancing capacity in each bidding zone is determined by two or more TSOs according to a common agreement, the congestion income can be distributed implicitly according to common rules for sharing overall procurement costs.

Article 10

Publication of information

1. The TSOs applying market-based allocation process in the CCR Nordic shall publish information on offered volumes as well as offered prices of procured balancing capacity, anonymised where necessary, no later than one hour after the results of the procurement have been notified to the bidders, pursuant to Article 12(3)(e) of the EB Regulation.
2. The TSOs applying market-based allocation process in the CCR Nordic shall publish information on the allocation of CZC for the exchange of balancing capacity pursuant to Article 38 of the EB Regulation at the latest 24 hours after the allocation and no later than 6 hours before the use of the allocated CZC, pursuant to Article 12(3)(h) of the EB Regulation:
 - a) date and time when the decision on allocation was made;
 - b) period of the allocation;
 - c) volumes allocated;
 - d) market values used as a basis for the allocation process in accordance with Article 39 of the EB Regulation;
3. The TSOs applying market-based allocation process in the CCR Nordic shall inform on the use of allocated CZC for the exchange of balancing capacity pursuant to Article 38 of the EB Regulation at the latest one week after the use of allocated CZC, pursuant to Article 12(3)(i) of the EB Regulation:
 - a) volume of allocated and used CZC per MTU,
 - b) volume of released CZC for subsequent timeframes per MTU;
 - c) estimated realised costs and benefits of the allocation process;
4. The TSOs applying market-based allocation process in the CCR Nordic shall publish the approved methodologies at least one month before its application pursuant to Article 12(3)(j) of the EB Regulation.
5. Only when is subject to approval pursuant to Article 18 of the EB Regulation, a TSO may withhold the publication of information on offered prices and volumes of balancing capacity or balancing energy bids if justified for reasons of market abuse concerns and if not detrimental to the effective functioning of the electricity markets. A TSO shall report such withholdings at least once a year to the relevant regulatory authority in accordance with Article 37 of Directive 2009/72/EC and pursuant to Article 12(4) of the EB Regulation.

TITLE 3

Final provisions

Article 11

Publication and implementation of the Proposal

1. The TSOs shall publish the Proposal without undue delay after all regulatory authorities of CCR Nordic have approved the Proposal or a decision has been taken by the Agency for the Cooperation of Energy Regulators in accordance with Article 5(6), Article 5(7), Article 6(1) and Article 6(2) of the EB Regulation.
2. The TSOs shall implement the Proposal at the same time as the common and harmonised rules and processes for exchange and procurement of balancing capacity in accordance with Article 33(1) and the

application of market-based allocation process in accordance with Article 38(1) of the EB Regulation will be implemented.

Article 12

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 Regulation 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.