



Core CCR TSOs' Methodology for an allocation process of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves based on economic efficiency analysis in accordance with article 42 of the Commission Regulation on (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

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Core Transmission System Operators taking into account the following:

Whereas

1. The EE CZCA methodology generally contributes to achieving the objectives stated in article 3 of the EBGL. In particular, this EE CZCA methodology serves the following objectives of the EBGL:
 - (a) The EE CZCA methodology serves the objective of fostering effective competition, non-discrimination and transparency in balancing markets as stated in article 3(1)(a) and enhancing efficiency of balancing as well as efficiency of European and national balancing markets as started in article 3(1)b of the EBGL by defining the required principles necessary for establishing a balancing capacity cooperation (hereafter referred to as "BCC") as detailed in Article 3 of this EE CZCA methodology including additional requirements for harmonisation, and foster transparency by means of the notification process as specified in Article 4.;The EE CZCA methodology facilitates the objective for the integration of the balancing markets and for promoting the possibilities for the exchanges of balancing services while using market-based mechanisms and contributing to operational security as stated in article 3(1)(c) and article 3(2)(d) of the EBGL by means of a clear harmonised process description for the procurement of balancing capacity across border as detailed in Article 5 of this EE CZCA methodology, make explicit rules on respecting day-ahead markets as detailed in Article 6,7,8 and 9 of this EE CZCA methodology.;
The EE CZCA methodology ensures that the procurement of balancing services is fair, objective, transparent and market-based in accordance with article 3(2)(e) of the EBGL. The rules on procurement of balancing capacity are required to be harmonised per BCC according to Article 3 and 5 of this EE CZCA methodology. For avoidance of undue barriers to participate for new entrants and to foster liquidity, exact timings are still to be decided per BCC for the procurement of balancing capacity and for additional market design principles. Furthermore, common rules are stated in Articles 7 – 9 how the market value and volume as well as the offered volumes and prices shall be determined;
 - (b) The EE CZCA methodology takes into account the facilitation on demand response including aggregation and energy storage and participation of renewables by enabling short gate closure times of balancing capacity procurement and complex bidding in accordance with article 3(2)(f) and article 3(2)(g) of the EBGL) as is defined in Article 5 and 3 of this EE CZCA methodology respectively;
 - (c) This EE CZCA methodology may, if relevant, be applied before the go-live of DA FB MC in the CCR Core and before the go-live of the balancing energy platforms according to articles 19, 20 and 21 of the EBGL;
 - (d) In case the DA FB MC is implemented in the CCR Core, the flow-based domain shall be considered for the forecasting of market value of CZC according to Article 7 of this methodology;

In conclusion, the EE CZCA methodology meets the objectives of the EBGL

Abbreviations

The list of abbreviations used in this EE CZCA methodology is the following:

- aFRR: frequency restoration reserve with automatic activation
- BCC: balancing capacity cooperation
- BSP: balancing service provider
- BZB: bidding zone border
- CACM: Commission Regulation (EU) 2015/1222 establishing a guideline on capacity allocation and congestion management
- CCR: capacity calculation region
- CMOL: common merit order list
- CZC: cross zonal capacity
- CZCA: cross zonal capacity allocation
- DC: direct current
- EBGL: Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing
- EE: economic efficiency
- ENTSO-E: European Network of Transmission System Operators for Electricity
- FRR: frequency restoration reserve
- GCT: gate closure time
- MCO: market coupling operator
- mFRR: frequency restoration reserve with manual activation
- MTU: market time unit
- NEMO: nominated electricity market operator
- NRA: national regulatory authority
- RR: replacement reserve
- SDAC: single day-ahead coupling
- SOGL: Commission Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation
- TSO: transmission system operator

Article 1

Subject Matter and Scope

1. This methodology specifies the process of the allocation of CZC based on economic efficiency analysis for the exchange of balancing capacity or sharing of reserves for the CCR Core; the process is based on the forecasted market values of CZC for the exchange of energy and the forecasted market values for the exchange of balancing capacity or sharing of reserves.
2. The scope of the EE CZCA methodology does not extend to the assignment of roles and responsibilities to specific parties. Also, the governance framework for specific roles or responsibilities and TSO-TSO settlement rules are out of scope of the EE CZCA methodology.
3. The application of this EE CZCA methodology is a voluntary initiative by two or more Core TSOs of a BCC or at the request of their relevant national regulatory authorities (NRAs) in accordance with article 38(1) of the EBGL and article 59 of Directive (EU) 2019/944.
4. The application of this EE CZCA methodology by two or more Core TSOs of a BCC (see Article 3) shall be subject of TSO notification pursuant to article 150 of the SOGL.
5. All Core TSOs of a BCC applying the EE CZCA methodology shall notify the bidding zone borders, the volume of allocated CZC, the market timeframe, the duration of application and the detailed description of the allocation process and shall establish common and harmonised rules and processes for the exchange and procurement of balancing capacity pursuant to article 32 and article 33 of the EBGL.
6. According to article 38(4) of the EBGL, CZC allocated for the exchange of balancing capacity or sharing of reserves shall be used by the BCC TSOs, exclusively for the product where it was allocated for, being aFRR, mFRR, or RR. If the CZC is not used for the product where it was allocated for, the CZC shall be used by all TSOs for the exchange of balancing energy with shorter activation times or for operating the imbalance netting process. The reliability margin calculated pursuant to CACM shall be used only for operating and exchanging frequency containment reserves, except on Direct Current ('DC') interconnectors for which CZC for operating and exchanging frequency containment reserves may also be allocated in accordance with article 38(1) of the EBGL.

Article 2

Definitions and Interpretation

1. For the purposes of this EE CZCA methodology, the terms used shall have the definition given to them in article 2 of the Electricity Regulation, article 2 of the Transparency Regulation, article 2 of the CACM, article 3 of the SOGL and article 2 of the EBGL.
2. In case anything in the methodology is legally void for any reason (such as e.g. that the methodology contradicts the network code or other regulation), the remainder of the methodology remains unaffected unless it is consequently either meaningless or materially changed.
3. The following additional definitions shall also apply:
 - (a) 'Contracting of balancing capacity' means a process at a certain point in time where balancing service providers' bids in a balancing capacity auction are selected after the gate closure time and the balancing service providers are informed about their selected bids.

- (b) 'Cross zonal capacity allocation optimisation function' means the algorithm applied for the allocation of CZC for the exchange of balancing capacity or sharing of reserves of each BCC in which balancing capacity is exchanged or reserves are shared.
 - (c) 'Economic efficiency method' of this methodology to allocate CZC for the exchange of balancing capacity or sharing of reserves. It is based on a comparison of the forecasted market value of CZC for the exchange of balancing capacity or sharing of reserves and the forecasted market value of CZC for the exchange of energy.
 - (d) 'Market value of cross zonal capacity for the exchange of balancing capacity or sharing of reserves' means the change in the economic surplus of the balancing capacity market (i.e. the sum of buyer surplus and if applicable seller surplus and congestion income) resulting from the incremental increase of the CZC allocated for the exchange of balancing capacity or sharing of reserves.
 - (e) 'Market value of cross zonal capacity for the exchange of energy in SDAC means the change in the economic surplus of the SDAC (the sum of the producer surplus, consumer surplus and congestion income) resulting from the incremental increase of the CZC allocated for the exchange of energy.
 - (f) 'Release of cross zonal capacity for the exchange of balancing capacity or sharing of reserves means CZC allocated for the exchange of balancing capacity or sharing of reserves that is no longer needed and is released as soon as possible and returned in the subsequent capacity allocation timeframes.
 - (g) 'Use of cross zonal capacity for the exchange of balancing capacity or sharing of reserves means allocated CZC used for the exchange of balancing capacity or sharing of reserves, either for the exchange of balancing capacity in terms of dimensioning and compliance or for physical use of CZC for the actual transfer of balancing energy.
4. In this EE CZCA methodology, 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 this EE CZCA methodology;
 - (c) any reference to legislation, regulations, directives, orders, instruments, codes or any other enactment shall include any modification, extension or re-enactment of it when in force;
 - (d) any reference to an article without an indication of the document shall mean a reference to this EE CZCA methodology.

Article 3

Principles of each BCC within the CCR Core Applying this EE CZCA Methodology

1. In the context of this EE CZCA methodology, a Core TSOs' BCC consists of two or more Core TSOs that apply the exchange of balancing capacity or sharing of reserves in a geographical area sharing common bidding zone border(s).

2. The Core TSOs that want to establish a BCC in accordance with this EE CZCA, shall publish on the ENTSO-E website the expected costs and benefits of such a BCC.
3. The settlement of balancing capacity bids for each BCC applying this EE CZCA methodology shall be based on marginal pricing (pay-as-cleared). For a transitional period of three years after approval of this EE CZCA Methodology, any other harmonised settlement of balancing capacity per BCC is allowed to be used.
4. Each BCC applying this EE CZCA methodology shall decide on the complexity of bids, i.e linking possibilities between balancing capacity bids in time and between products and divisibility.
5. For each BCC of the CCR Core applying this EE CZCA methodology, the minimum contracting period of standard balancing capacity bids shall be a multiple of the day-ahead MTU and shall be more than 1 (one) day. The maximum contracting period shall be 1 (one) year and contracting shall not be done more than 1 (one) year in advance of the actual provision of the balancing capacity. The contracting period is the period for which a BSP can submit one or more balancing capacity bids during the procurement process of balancing capacity.
6. For each BCC of the CCR Core applying this EE CZCA methodology, the minimum validity period of standard balancing capacity bids shall be equal or a multiple of the day-ahead MTU. The maximum balancing capacity validity period shall not exceed the contracting period of the procurement of balancing capacity. The balancing capacity validity period is the period for which the single standard product for balancing capacity bid is offered, i.e each submitted capacity volume has one single bid price.
7. For each BCC of the CCR Core applying this EE CZCA methodology, the TSO-BSP pricing rules shall be harmonised within each BCC. In case of a Core TSO applying a central dispatching model, the TSO-BSP pricing rules of standard balancing capacity products procured within a BCC are defined by the Core TSO in the terms and conditions related to BSPs and shall include conversion rules of integrated scheduling process bids into standard balancing capacity products defined pursuant to article 27 of the EBGL.
8. The Core TSOs shall assess regularly, but at least annually whether the CZC allocated for the exchange of balancing capacity or sharing of reserves is still needed for that purpose. If subsequent assessments show that CZC allocated for the exchange of balancing capacity or sharing of reserves is no longer needed for that purpose, it shall be returned in subsequent capacity allocation timeframes.
9. Each BCC of the CCR Core shall include fallback procedures and curtailment procedures on firmness regime of CZC in the application methodology of the BCC according to article 38 of the EBGL, commonly agreed by all TSOs of the CCR Core.

Article 4

Notification Process for the Use of the Allocation Process based on Economic Efficiency Analysis

1. In addition to the notification process as referenced to in Article 1-4 of this EE CZCA methodology, all Core TSOs of each BCC within the CCR Core applying this EE CZCA methodology shall inform the Core TSOs and market participants latest by 4 (four) months ahead of the application of this EE CZCA methodology forecast technique consisting of the use of reference periods and adjustment factors to determine the forecasted market value of CZC for the exchange of energy and the reference periods to determine the forecasted market value of CZC for the exchange of balancing capacity or sharing of

reserves. Core TSOs may provide remarks not later than 3 (three) months ahead of the application. The BCC TSOs shall take the remarks by the Core TSOs properly into account.

2. Each BCC of the CCR Core applying this EE CZCA methodology shall share the applied CZCA optimisation function with all Core TSOs.
3. Each BCC of the CCR Core applying the EE CZCA methodology shall inform all stakeholders (e.g. NRAs, market participants) and Core TSOs through an online announcement via the ENTSO-e website, at least 1 (one) month prior to the first gate opening of the balancing capacity market. This information will include a detailed description of the BCC specifications: the type of product for balancing capacity exchanged or shared, the bidding zone borders, the market timeframe, the duration of application or the allocation of CZC and time for at least the first gate opening and gate closure time of the balancing capacity market.

Article 5

Timeframe of Economic Efficiency Allocation

1. The allocation process based on economic efficiency analysis to allocate CZC for the exchange of balancing capacity and/or sharing of reserves shall include the following consecutive timings for each BCC of the CCR Core applying this EE CZCA methodology. In the following, "(each) BCC" refers to "(each) BCC of the CCR Core applying the EE CZCA methodology".
 - a. The publication of the volume of CZC based on the actual economic efficiency analysis at least 2 (two) days before the GOT for BSPs to submit standard balancing capacity bids to TSOs.
 - b. The GCT for BSPs to submit to Core TSOs (TSO-BSP GCT) the standard balancing capacity bids shall be the same for each BSP within each BCC (per standard product and per direction) and shall be organised at least 1 (one) week in advance of the provision of the balancing capacity.
 - c. For TSOs within the CCR Core applying central dispatching model, the TSO-BSP GCT for integrated scheduling process bids shall be defined pursuant to articles 24(5) and 24(6) of the EBGL.
 - d. Each BCC of the CCR Core shall send the allocated CZC per product and per direction to the respective modules for the management of capacity of the European platforms for the exchange of balancing energy, within 1 (one) hour after the results of CZC optimisation are known.
 - e. Each BCC of the CCR Core shall notify all BSPs within the BCC simultaneously about their selected standard upward balancing capacity bids or downward balancing capacity bids. The notification shall be done before subsequent TSO-BSP GCTs within the BCC, and at least 1 (one) week in advance of the provision of the balancing capacity.
 - f. Notification to all market participants of allocated CZC for the exchange of balancing capacity and/or sharing of reserves shall be done at the same point in time as described in paragraph *d*.
2. The allocation process based on economic efficiency analysis to allocate CZC for the exchange of balancing capacity and for sharing of reserves shall include the following steps:
 - a. TSOs of each BCC of the CCR Core applying the EE CZCA methodology shall calculate the forecasted market value of CZC for the exchange of balancing capacity and/or sharing of reserves and shall calculate the forecasted market value of CZC for the exchange of energy.
 - b. TSOs of each BCC of the CCR Core shall perform the CZCA optimisation function and determine the allocation of CZC for the exchange of balancing capacity or sharing of reserves.

- c. TSOs of each BCC of the CCR Core performing the CZCA optimisation function shall send the allocated CZC values for the exchange of balancing capacity or sharing of reserves to all TSOs and BSPs of the BCC of the CCR Core.
- d. After the allocation of CZC to the exchange of balancing capacity or sharing of reserves, the BSPs submit standard upward and standard downward balancing capacity bids to the respective BCC.

For TSOs of each BCC who are applying a central dispatching model, BSPs may submit only integrated scheduling bids (instead of standard balancing capacity bids), which may be converted where possible into standard upward and/or standard downward balancing capacity bids by the connecting TSO in accordance with article 27 of the EBGL.

- e. TSOs of each BCC of the CCR Core establish the CMOL of balancing capacity bids by using the procurement optimisation function, respecting the allocated CZC for the exchange of balancing capacity or sharing of reserves. The procurement optimisation function minimises the overall balancing capacity procurement costs pursuant to article 58(3) of the EBGL. CZC allocated for the exchange of balancing capacity and/or sharing of reserves for each product within each BCC in the CCR Core shall be deducted from the result of the final capacity calculation in a separate process, which shall be conducted by the respective NEMO(s).

Article 6

Process to Define the Maximum Volume of Allocated CZC for the Exchange of Balancing Capacity or Sharing of Reserves

1. The process to define the maximum volume of allocated CZC for the exchange of balancing capacity and/or sharing of reserves shall comply with article 42(2) of the EBGL.
2. The maximum volume limitations of allocated CZC for the exchange of balancing capacity and/or sharing of reserves for this EE CZCA Methodology shall be applicable for the combined allocation of all balancing capacity products on a certain bidding zone border.
3. The maximum of 5% limit of CZC allocation based on economic efficiency analysis on a Core BZB (in accordance with article 42(2) of the EBGL) is determined as the 5% of the average of calculated CZCs for SDAC fallback procedure in accordance with article 44 CACM based on article 23 of the DA CCM in accordance with art. 20ff. CACM. The respective resulting CZC shall be published by Core TSOs.
4. New interconnectors are those interconnectors that went operational for the exchange of energy after 18.12.2019. 10% of the installed capacity means 10% of the active power capacity of the interconnector's capability to transfer continuously within the determined safe security margins of the interconnector.
5. The maximum volume of allocated CZC for the exchange of balancing capacity or sharing of reserves shall respect the requirements and limits for exchange of FRR and of RR within a synchronous area in accordance with articles 167 and 169 of the SOGL.
6. TSOs of each BCC of the CCR Core may apply additional lower limits besides the limitations of article 42(2) of the EBGL for the maximum volume of allocated CZC for the exchange of balancing capacity or sharing of reserves within their own BCC. The previous stated may also be initiated at the request of the relevant NRAs. The use of additional lower limits by each BCC for the maximum

volume of allocated CZC for the exchange of balancing capacity or sharing of reserves shall be set out in the proposal according to article 33(1) of the EBGL.

Article 7

Determination of the Forecasted Market Value of CZC for the Exchange of Energy

1. When calculating the forecasted market value of CZC in day-ahead market timeframe, it shall be calculated in accordance with the methodology pursuant to article 37(2) of the CACM.
2. The forecasted market value of CZC for the exchange of energy between bidding zones shall be defined per MTU of SDAC and shall be calculated in accordance with article 39(5) of the EBGL.
3. The forecasted market value of CZC for the exchange of energy between bidding zones shall be based on shadow prices of the relevant network elements of the reference period. It shall be calculated per MW as the change in total welfare surplus for the exchange of energy resulting from the incremental increase of CZC allocated for the exchange of energy. The forecasted market value of CZC for the exchange of energy is 0 EUR/MW if the market value of CZC for the exchange of balancing capacity or sharing of reserves is in the opposite direction of the congestion direction.
4. Adjustment factors may be applied in a BCC to improve the forecasted value of CZC for the exchange of energy between bidding zones. If adjustment factors are applied, this shall be included and justified in the methodology for the establishment of common and harmonized rules and processes for the exchange and procurement of balancing capacity according to article 33(1) of the EBGL.
5. If the adjustment factors are used, they shall be used in a transparent way to incorporate improved forecasting and not to give preference to the exchange of balancing capacity or sharing of reserves on the expense of CZC allocated to the exchange of energy and vice versa.
6. The rules of this EE CZCA methodology for calculating the forecasted value of CZC for the exchange of energy between bidding zones shall take into account the effects that the potential reduction of CZC from SDAC may have on the CNECs of the CCR in the context of the flow-based capacity calculation.
7. The reference periods shall be chosen according to the validity period of the standard balancing capacity bids which are subject to procurement. By default the reference period to be applied shall be the latest period with available information.

In case the CBA pursuant to Article 3.2 or the analysis of the efficiency pursuant to Article 7.8 of the forecasting shows that different reference periods are more suitable on a specific border, the BCC shall choose the more accurate reference period, or a combination of them.

8. The TSOs of each BCC of the CCR Core applying this EE CZCA methodology shall monitor, demonstrate and publish on the ENTSO-E website the efficiency of the forecasting and the appropriateness of the choice of reference periods and adjustment factors on at least a yearly basis, including a comparison of the forecasted and actual market values of the CZC for the exchange of energy and take appropriate actions in cooperation with the Core TSOs and respective NRAs, where needed.

Article 8

Determination of the Forecasted Market Value of CZC for the Exchange of Balancing Capacity or Sharing of Reserves

1. The forecasted market value of CZC for the exchange of balancing capacity or sharing of reserves between bidding zones shall be defined per MTU of SDAC and shall be calculated in accordance with article 39(5) of the EBGL.
2. The forecasted market value of CZC for the exchange of balancing capacity or sharing of reserves between bidding zones shall be based on submitted bids of selected reference period(s) with the option to include adjustment factors.
3. The reference periods shall be chosen according to the validity period of the standard balancing capacity bids which are subject to procurement. By default the reference period to be applied shall be the latest period with available information.
4. Adjustment factors may be applied in a BCC to improve the forecasted value of CZC for the exchange of balancing capacity or sharing of reserves between bidding zones. If adjustment factors are applied, this shall be included and justified in the methodology for the establishment of common and harmonized rules and processes for the exchange and procurement of balancing capacity according to article 33(1) of the EBGL.
5. If the adjustment factors are used, they shall be used in a transparent way to incorporate improved forecasting and not to give preference to the exchange of balancing capacity or sharing of reserves on the expense of CZC allocated to the exchange of energy.
6. The TSOs of each BCC of the CCR Core applying the EE CZCA methodology shall monitor, demonstrate and publish on the ENTSO-E website the efficiency of the forecasting methodology and the appropriateness of the choice of reference periods and adjustment factors on at least a yearly basis, including a comparison of the forecasted and actual market values of the CZC for the exchange of balancing capacity or sharing of reserves and take appropriate actions in cooperation with the Core TSOs and respective NRAs, where needed.

Article 9

Determination of the Allocated Volume of CZC for the Exchange of Balancing Capacity or Sharing of Reserves

1. The determination of allocation of CZC to the exchange of balancing capacity or sharing of reserves shall be based on a comparison of the forecasted market value of CZC for the exchange of balancing capacity or sharing of reserves and the forecasted market value of CZC for the exchange of energy.
2. The allocation of CZC for the exchange of balancing capacity or sharing of reserves is determined simultaneously with the selection of standard balancing capacity bids by the capacity procurement optimisation function.
3. The objective of the allocation of CZC between SDAC and the exchange of balancing capacity or sharing of reserves shall be the maximisation of the expected total economic surplus for the sum of the expected exchange of energy and the expected exchange of balancing capacity or sharing of reserves.
4. The optimisation resolution of the allocation of CZC for the exchange of balancing capacity and sharing of reserves equals the optimisation resolution of the optimisation function of the SDAC. Standard upward balancing capacity bids and downward balancing capacity bids with a granularity larger than the MTU of SDAC are considered as block bids in the optimisation.

5. Each marginal volume of CZC shall be allocated to the exchange of energy in case the marginal economic surplus of CZC for the exchange of balancing capacity or sharing of reserves is lower or equal to the expected marginal economic surplus of CZC for the exchange of energy.
6. Netting of CZC allocated to the exchange of balancing capacity or sharing of reserves is not possible between:
 - (a) standard upward and downward balancing capacity bids;
 - (b) standard balancing capacity bids of different balancing capacity products;
 - (c) standard balancing capacity bids and exchange of energy bids.
7. TSOs or NRAs of each BCC of the CCR Core may commonly apply additional thresholds and/or margins to reduce CZC allocation for the exchange of balancing capacity or sharing of reserves between bidding zones.
8. Competition on the allocation of CZC between different BCCs of the CCR Core for a certain BZB shall be approached based on a first-come first-serve principle. The efficiency of such an approach may be evaluated by Core TSOs. Appropriate measures shall be taken to optimise the total allocation of CZC within the CCR Core between different BCCs.
9. Competition on the allocation of CZC within a BCC of the CCR Core between different products for a certain BZB shall be based by default on a first-come first-serve principle. Each BCC of the CCR Core may deviate from this approach using the thresholds and margins proposed in Article 9.7.

Article 10

Pricing of CZC

1. Each BCC of the CCR Core allocating CZC for the exchange of balancing capacity or sharing of reserves applying the allocation process based on economic efficiency analysis of the CCR Core shall calculate the CZC price for the volume of CZC that is allocated for the exchange of balancing capacity or sharing of reserves.
2. The price of CZC allocated for the exchange of balancing capacity or sharing of reserves shall be calculated for each MTU, bidding zone border and balancing capacity product, i.e. separately for each upward and downward standard balancing capacity product.
3. The CZC price resulting from the allocation of CZC for the exchange of balancing capacity or sharing of reserves applying the allocation process based on economic efficiency analysis with pay-as-cleared (marginal pricing) for the TSO-BSP pricing shall correspond for each direction to the difference between the marginal prices of the standard product balancing capacity in each direction on each side of the BZB.

Article 11

Firmness Regime of CZC

1. The allocated CZC for the exchange of balancing capacity or sharing of reserves shall be firm after the selection of standard upward balancing capacity bids or standard downward balancing capacity bids by the capacity procurement optimisation function pursuant to article 33(3) of the EBGL.

2. According to article 38(9) of the EBGL, when CZC allocated for the exchange of balancing capacity or sharing of reserves has not been used for the associated exchange of balancing energy, of the product it was allocated for, it shall be released to all TSOs for the associated exchange of balancing energy for the same product if possible, and at least it shall be released to all European TSOs for the exchange of balancing energy with shorter activation times or for operating the imbalance netting process according to articles 19-22 of the EBGL. Each BCC of the CCR Core shall at any time inform all Core TSOs, on who is the TSO for which CZC has been allocated for balancing.
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 11(1), the costs associated with mitigating the effects of curtailment shall be borne by the relevant TSOs of each BCC of the CCR Core.
4. Core TSOs shall not increase the transmission reliability margin calculated pursuant to article 21 of the CACM due to the exchange of balancing capacity or sharing of reserves for frequency restoration reserves and replacement reserves.

Article 12

Sharing of Congestion Income from CZC

1. Congestion income generated by the allocation of CZC for the exchange of balancing capacity or sharing of reserves shall be shared according to the congestion income distribution methodology in accordance with article 73 of CACM.
2. The amount of congestion income to be transferred to the SDAC is determined as the sum of the congestion income determined for each BZB of the BCC as set out in Article 12(3).
3. For each MTU of SDAC and for each BZB of the BCC of the CCR Core, the allocated CZC for the exchange of balancing capacity or sharing of reserves shall be multiplied with the actual day-ahead market spread at the concerned BZB and the direction for the concerned MTU resulting from the SDAC only in case the price difference is positive in the direction of the allocated CZC for the exchange of balancing capacity or sharing of reserves per MTU of SDAC. Otherwise, the congestion income is 0 EUR/MWh.
4. If a surplus remains from the process described in Article 12.3, it shall be assigned to the relevant BZBs of the BCC on a pro-rata basis according to the congestion income originally generated by the exchange of balancing capacity or sharing of reserves.
5. For the BZB where congestion income results from the exchange of balancing capacity or sharing of reserves, the Core TSOs on each side of the BZB shall receive their share of net border balancing income based on a 50%-50% sharing key.
6. In cases where the ownership shares or the shares of investments costs of Core TSOs on both sides of specific interconnectors on the concerned BZBs are different from a 50%-50% split, the concerned Core TSOs may also use a sharing key due to the different ownership shares, different shares of investments costs, exemption decisions¹ or decisions on cross-border cost allocation² by competent NRAs or the Agency. The sharing keys for these specific cases shall be published in a common

¹ Exemption decision granted to these entities by relevant competent Authorities in accordance with article 17 of Regulation (EC) 714/2009.

² Decisions on cross-border cost allocation granted to these entities by relevant competent Authorities or the Agency in accordance with article 12(4) or 12(6) of Regulation (EC) 347/2013.

document by ENTSO-E on its website for information purposes only. This document shall list all these specific cases with the name of the interconnector, the BZB, the involved TSOs/Parties, the specific sharing key applied and the motivation / reasons for the deviation from the 50%-50% sharing key. The document shall be updated and published promptly as soon as any changes occur. Each publication shall be announced via the ENTSO-E website.

7. In case the BZB consists of several interconnectors with different sharing keys, on which are owned by different Core TSOs, the net border balancing capacity congestion income shall be assigned first to the respective interconnectors on that BZB based on each interconnector's contribution to the allocated CZC. The parameters defining the contribution of each interconnector will be agreed by the Core TSOs on the BZB. They shall be published in a common document by ENTSO-E on its website for information purposes only. The document shall be updated and published promptly as soon as any changes occur.
8. In case specific interconnectors are owned by entities other than Core TSOs, the reference to TSOs in this article shall be understood as referring to those entities.

Article 13

Publication

1. Core TSOs shall publish this EE CZCA methodology without undue delay on the ENTSO-E website after all NRAs of the CCR Core have approved this EE CZCA methodology.
2. Each Core TSO participating in a BCC shall publish information on offered volumes as well as offered prices of procured balancing capacity, anonymised where necessary, as soon as possible but no later than 1 (one) hour after the results of the procurement have been notified to the bidders, pursuant to article 12(3)(e) of the EBGL.
3. Each Core TSO participating in a BCC shall publish information in accordance with article 12(3)(h) of the EBGL on the allocation of CZC for the exchange of balancing capacity or sharing of reserves pursuant to article 38(1)(a) of the EBGL as defined in Article 5(1)(a) of this EE CZCA methodology as soon as possible but no later than 6 (six) hours before the use of the allocated CZC.
4. Each Core TSO participating in a BCC shall inform on the use of allocated CZC for the exchange of balancing capacity or sharing of reserves pursuant to article 38 of the EBGL at the latest 1 (one) week after the use of allocated CZC, pursuant to article 12(3)(i) of the EBGL.
5. Subject to approval pursuant to article 18 of the EBGL, a Core TSO participating in a BCC 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 Core TSO participating in a BCC shall report such withholdings at least once a year to the relevant regulatory authority in accordance with article 59 of Directive (EU) 2009/944 and pursuant to article 12(5) of the EBGL.
6. Core TSOs of each BCC applying the EE CZCA methodology shall publish the efficiency of the forecasted market value for the exchange of balancing capacity or sharing of reserves and the

efficiency of the forecasted market value for the exchange of energy to their respective NRAs and market participants to analyse the forecast efficiency.

Article 14

Implementation Timeline

1. The EE CZCA methodology shall be considered implemented when the Core NRAs have approved the EE CZCA methodology in accordance with article 5(2) of Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy regulators (hereinafter – ACER Regulation).

Article 15

Language

1. The reference language for this Core TSOs' EE CZCA methodology shall be English. For the avoidance of doubt, where Core TSOs need to translate this Core TSOs' EE CZCA methodology into their national language(s), in the event of inconsistencies between the English version published by Core TSOs in accordance with article 7 of the EBGL and any version in another language, the relevant Core TSOs shall be obliged to dispel any inconsistencies by providing a revised translation of this Core TSOs' EE CZCA methodology to their relevant Core NRAs.