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 (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

Contents

Greece Italy Transmission System Operators taking into account the following:

Whereas

1. This document is the methodology by the *Greece Italy* Transmission System Operators (hereafter referred to as "**TSOs**") of the *Greece Italy* Capacity Calculation Region (hereafter referred to as "*Greece Italy*"). The document provides a methodology for an allocation process of cross zonal capacity for the exchange of balancing capacity or sharing of reserves based on economic efficiency analysis (hereafter referred to as "**EE CZCA methodology**") in accordance with Article 42 of Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing (hereafter referred to as "**EBGL**").

2. The EE CZCA methodology takes into account the general principles and goals set in the EBGL, the Regulation (EC) 2017/1485 establishing a guideline on electricity transmission system operation (hereafter referred to as the "**SOGL**"), Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereafter referred to as the "**CACM**") as well as Regulation (EC) No 714/2009 of the European Parliament of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity (hereafter referred to as the "**Electricity Regulation**") as well as Regulation (EC) 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 the "**Transparency Regulation**").

3. The EE CZCA methodology takes into account the general principles, goals and other methodologies set out in the EBGL. The goal of the EBGL is the integration of balancing markets while contributing to operational security. To facilitate this goal, while contributing to operational security, it is necessary to integrate balancing markets and promoting the possibilities for exchanges of balancing services while contributing to operational security.

4. 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 answers the requirements set out in Article 42 of the EBGL;

   (b) 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) of the EBGL by defining the principles necessary for establishing an allocation process based on economic efficiency analysis, and how to notify it as described in articles 3 and 4 of this EE CZCA methodology;

   (c) 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 defining the rules for the procurement of the balancing capacity, through the allocation of cross-zonal capacity for the balancing capacity market, together with and at the same time as the allocation of cross zonal capacity of the day ahead energy market, as detailed in articles 5, 6, 7, and 8 of this EE CZCA methodology;

   (d) The EE CZCA methodology ensures that the development of the day-ahead market is not compromised in accordance with Article 3(2)(e) of the EBGL as it is specified in articles 5 and 13 of this EE CZCA methodology, the CZC allocated to the exchange of balancing capacity or sharing of

reserves that is not used, shall be released for the exchange of balancing energy processes with shorter timeframes;

(e) The EE CZCA methodology ensures that the procurement of balancing services is done in a fair, objective, transparent way and uses the market-based mechanisms as stated in Article 3(1)(e) of the EBGL. This EE CZCA methodology states in articles 8, 9 and in articles 10 and 11 how the forecasted market values as well as the allocated volumes and prices are determined;

(f) The EE CZCA methodology aims at respecting the responsibility assigned to the relevant TSOs in order to ensure system security, including as required by national legislation in accordance with Article 3(2)(f) of the EBGL by establishing the maximum limitations to be applied by the TSOs applying this EE CZCA methodology as is defined in articles 8 of this EE CZCA methodology;

(g) The EE CZCA methodology takes into consideration agreed European standards in accordance with Article 3(2)(h) of the EBGL, as this methodology is based on the single day-ahead market time unit defined within the CACM Regulation and uses the optimization resolution from the MCO function, as specified in articles 3, 6, 7, and 9-13 of this EE CZCA methodology;

(h) 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

- BSP: balancing service provider

- CACM: Commission Regulation (EU) 1222/2015 establishing a guideline on capacity allocation and congestion management

- CET: Central European Time

- CMOL: common merit order list

- CZC: cross zonal capacity

- CZCA: cross zonal capacity allocation

- DC: direct current

- EBGL: guideline on electricity balancing

- EE: economic efficiency

- ENTSO-E: European Network of Transmission System Operators for Electricity

- FRR: frequency restoration reserve

- GCT: gate close time

- MB: market-based

- MCO: market coupling operator

- MTU: market time unit

- NRA: national regulatory authority

- RR: replacement reserve

- SDAC: single day-ahead coupling

- SOGL: guideline on system operation

- TSO: transmission system operator

SUBMIT THE FOLLOWING EE CZCA METHODOLOGY TO GREECE ITALY REGULATORY AUTHORITIES:

Article 1   Subject matter and scope

1. The *Greece Italy* TSOs lay down in this EE CZCA methodology a methodology to allocate cross zonal capacity for the exchange of balancing capacity or sharing of reserves, which is based on the forecasted market values of cross zonal capacity for the exchange of energy and for the exchange of balancing capacity or sharing of reserves.

2. All TSOs exchanging balancing capacity or sharing reserves by applying this EE CZCA shall regularly assess whether the cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves is still needed for that purpose.

3. Two or more TSOs exchanging balancing capacity or sharing reserves by applying the EE CZCA methodology shall establish common and harmonized rules and processes for the exchange and procurement of balancing capacity pursuant to Article 33(1) of the EBGL, and respecting the requirements set out in Article 32 of the EBGL.

4. The proposal for the application of the allocation of CZC applying the allocation process based on an economic efficiency analysis shall include the bidding zone borders, the volume of allocated CZC, the market timeframe, the duration of application and the detailed description of the methodology to be applied.

5. According to Article 38(4) of the EBGL, CZC allocated for the exchange of balancing capacity or sharing of reserves shall be used exclusively for the product where it was reserved for, being aFRR, mFRR, or RR. The reliability margin calculated pursuant to CACM shall be used 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.

6. The proposal for a list of standard products for balancing capacity for FRR and RR pursuant to Article 25(2) of the EBGL is out of the scope for this EE CZCA methodology and will be treated in a separate document.

Article 2   Definitions

1. For the purposes of this EE CZCA methodology, the terms used shall have the meaning 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. The following definitions shall also apply:

   a. 'Cross-zonal capacity allocation optimization function' means the role to operate the algorithm applied for the allocation of CZC for the exchange of balancing capacity or sharing of reserves in application of this EE CZCA methodology.

   b. 'Economic surplus from the exchange of balancing capacity or sharing of reserves' means the sum for the relevant time period of (i) the TSOs' surplus for the exchange of balancing capacity or sharing of reserves, (ii) the balancing service providers' surplus for the exchange of balancing capacity or sharing of reserves and (iii) the congestion income. Surplus for balancing service providers being the difference between the price of the accepted bids and the clearing price per capacity unit multiplied by the accepted capacity volume of the bid. Surplus for TSOs being the difference between the

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technical price limit and the clearing price per capacity unit multiplied by the volume of balancing capacity demand.

3. 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 for applying the cross-zonal capacity allocation based on economic efficiency analysis

1. In case of a TSO applying central dispatching model, the TSO-BSP pricing rules of standard balancing capacity products procured in application of this EE CZCA methodology are defined by the 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.

2. When applying this EE CZCA methodology, the minimum contracting period of standard balancing capacity bids shall be a multiple of the day-ahead MTU and contracting period should be more than one day.

3. When 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.

4. When applying this EE CZCA methodology, the TSO-BSP pricing rules shall be:

    a. defined in terms and condition related to balancing service providers pursuant to Article 18 of the EBGL,

    b. pursuant to Article 32(2) of the EBGL,

    c. harmonized within TSOs which have jointly established a proposal pursuant to Article 33(1) of the EBGL.

5. Cross-zonal capacities for the exchange of standard balancing capacity products or sharing of reserves from this EE CZCA methodology shall be exclusively provided to the respective platform, pursuant to Articles 19 to 21 of the EB Regulation, of the product they were allocated for.

6. The process of releasing allocated cross-zonal capacity for the exchange of balancing capacity or sharing of reserves in accordance with Article 10(2) shall be coordinated between the balancing energy platforms pursuant to Articles 19 to 21 of the EB Regulation.

7. Two or more TSOs may establish common rules pursuant to Article 33(1) of the EBGL for the application of the EE CZCA methodology if they directly share a bidding zone border or indirectly share a bidding border through a TSO which is also applying the EE CZCA methodology within the same common rules pursuant to Article 33(1) of the EBGL.

8. The TSOs shall regularly assess whether the CZC allocated for the exchange of balancing capacity or sharing of reserves is still needed for that purpose. The TSOs shall perform this assessment at least once per year.

Article 4   Notification process for the application of the EE CZCA methodology

1. TSOs within CCR Greece Italy applying this EE CZCA methodology shall inform all European TSOs and stakeholders through an announcement on the ENTSO-E website. This information will be shared at least thirty days before the first relevant gate opening time of the application and will include a detailed description of the common rules for application established pursuant to Article 33(1) of the EBGL: the bidding zone borders, the market timeframe, the duration of application or the allocation of CZC and time for entering into operation.

2. TSOs within CCR Greece Italy applying this EE CZCA methodology shall inform the relevant NRAs of the applied forecast technique to determine the forecasted market value of CZC for the exchange of energy or the forecasted market value of CZC for the exchange of balancing capacity or sharing of reserves.

3. TSOs within CCR Greece Italy implementing this EE CZCA methodology shall share the applied CZCA optimization function with all CCR Greece Italy TSOs for transparency purposes.

Article 5   Process of allocation based on economic efficiency analysis

The allocation process based on economic efficiency analysis pursuant to Article 42 of the EBGL is based on a comparison of the forecasted market value of cross zonal capacity for the exchange of balancing capacity or sharing of reserves and the forecasted market value of cross zonal capacity for the exchange of energy. The CZCA optimization is performed before the procurement of balancing capacity bids and before the SDAC.

Article 6   The timeframe of the allocation process based on economic efficiency analysis

1. The allocation process based on economic efficiency analysis to allocate CZC for the exchange of balancing capacity or sharing of reserves shall include the following consecutive timings:

    a. Notification to the BSPs of available CZC for the exchange of balancing capacity or sharing of reserves shall be done not later than one hour before the TSO-BSP GCT of standard upward balancing capacity bids and of standard downward balancing capacity bids.

    b. The TSO-BSP GCT of standard upward balancing capacity bids and of standard downward balancing capacity bids shall be defined in the common rules for the application of this EE CZCA methodology and organized before week-ahead of the SDAC.

    c. Notification to the BSPs of selected standard upward balancing capacity bids or downward balancing capacity bids by TSOs shall be done before the GOT of the SDAC.

2. The allocation process based on economic efficiency analysis to allocate CZC for the exchange of balancing capacity or for sharing of reserves shall include the following steps:

   a. The TSOs shall forecast the market value of CZC for the exchange of balancing capacity and for sharing of reserves and the market value of CZC for the exchange of energy.

   b. TSOs applying this EE CZCA methodology shall perform the CZCA optimization function and determine the allocation of CZC for the exchange of balancing capacity or sharing of reserves.

   c. The BSPs submit the standard upward and standard downward balancing capacity bids to their connecting TSO before TSO-BSP GCT.

   d. TSOs applying this EE CZCA methodology shall establish the CMOL of balancing capacity bids using the procurement optimization function, respecting the allocated CZC for the exchange of balancing capacity or sharing of reserves. The procurement optimization function minimizes the overall balancing capacity procurement costs pursuant to Article 58(3) of the EBGL.

   e. TSOs applying this EE CZCA methodology shall mark the allocated cross zonal capacity for the exchange of balancing capacity or sharing of reserves as already allocated CZC for the CZC calculation process in accordance with Article 38(6) of the EBGL.

   f. The remaining CZC is allocated at the next CZC allocation process for the exchange of energy pursuant to Article 38(5) of the EBGL.

Article 7   Process to define the maximum volume of allocated cross zonal capacity for the exchange of balancing capacity or sharing of reserves

1. The maximum volume (upper limit) of CZC allocated for the exchange of balancing capacity or sharing of reserves based on an economic efficiency analysis shall be limited to 5 % of the available capacity for the exchange of energy of the previous relevant calendar year between the respective bidding zones or, in case of interconnectors not taken into account for the calculation of the available capacity for the exchange of energy for the previous calendar year, 10 % of the total installed technical capacity of those interconnectors.

2. The 5 % of available capacity for the exchange of energy of the previous calendar year between the respective bidding zones means the maximum volume of available capacity for the exchange of energy resulted from the final capacity calculation process in D-1 or, if available, the intraday timeframe.

3. The volume limitation defined in the first paragraph of this Article may not apply for bidding zone borders connected through DC interconnectors until the co-optimized or market-based allocation processes are harmonized at Union level pursuant to Article 38(3) of the EBGL.

4. The maximum volume of allocated CZC for the exchange of balancing capacity or sharing of reserves shall respect the rules for exchange of FRR and RR within a synchronous area in accordance with Articles 167, 168, 169 and 170 of the SOGL.

5. *Greece Italy* TSOs   applying this EE CZCA methodology may, commonly and in accordance with their NRAs, apply additional limits for the maximum volume of allocated CZC for the exchange of balancing capacity or sharing of reserves.

Article 8   Determination of the forecasted market value of cross zonal capacity for the exchange of energy

1. The market value of CZC for the exchange of energy is the change in the economic surplus of the SDAC resulting from the incremental increase of the CZC allocated for the exchange of energy.

2. The forecasted market value of CZC for the exchange of energy between two bidding zones in the day-ahead market timeframe is 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 period are used.

3. The forecasting process, for each MTU, bidding zone border and direction, shall comprise the following steps:

   a. determination of the reference period, pursuant to paragraphs 4, 5 and 6(a);

   b. calculation of the market value of CZC as the SDAC market spread across the selected bidding zone border in the selected reference period and direction: if in the reference period the flow is in the opposite direction, or if there is no market spread, the market value of CZC is zero (0);

   c. if deemed necessary according to paragraph 5, application of adjustment factors to the market value of CZC calculated in the previous step.

4. By default, the following reference periods shall be chosen:

   a. the latest available working day at the time of the calculation, whenever CZC is allocated for a working day;

   b. the latest available weekend day at the time of the calculation, whenever CZC is allocated for a weekend day; and

   c. the latest available Sunday or bank holiday at the time of the calculation, whenever CZC is allocated for a bank holiday.

5. In case the contracting period is longer than one day, the reference period for each day of the contracting period shall be defined as per paragraph 4 and if applicable paragraph 6(a).

6. 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 exchange of energy and take appropriate actions, where needed:

   a. in case this analysis shows that different reference periods are more suitable on a specific border, the TSOs shall choose the more accurate reference period, or a combination of them;

   b. in case this analysis suggests it may furtherly improve the forecast, TSOs may use adjustment factors.

   The metrics for assessing the performance of the forecast shall be defined in the technical document pursuant to Article 15 of this EE CZCA methodology.

7. Adjustment factors for the determination of the forecasted market value of CZC for the exchange of energy may be applied in an application of this EE CZCA methodology to improve the forecasted value of CZC for the exchange of energy between bidding zones. A description of the adjustment factors shall be included in the technical document pursuant to Article 15(1) of this EE CZCA methodology. This technical document shall include at least the parameters and methodology based on which the adjustment

factors are calculated. Such parameters include, but not limited to: weather forecasts, load forecasts, RES production forecasts.

8. If adjustment factors are applied for the determination of the forecasted market value of CZC for the exchange of energy, this shall be included in the proposal for the application pursuant to Article 33(1) of the EBGL.

9. If the adjustment factors for the determination of the forecasted market value of CZC for the exchange of energy 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 at the expense of CZC allocated to the exchange of energy.

Article 9   Determination of the forecasted market value of cross zonal capacity for the exchange of balancing capacity or sharing of reserves

1. The market value of CZC for the exchange of balancing capacity or sharing of reserves is the change in the economic surplus of the balancing capacity market (the sum of consumer surplus and if applicable producer surplus and congestion income) resulting from the incremental increase of the CZC allocated for the exchange of balancing capacity or sharing of reserves.

2. The forecasted market value of CZC for the exchange of balancing capacity or sharing of reserves between two bidding zones is defined for each MTU, validity period, direction, product and bidding zone border.

3. When calculating the forecasted market value of CZC for the exchange of balancing capacity, the difference in marginal prices of the balancing capacity market of each bidding zone on the reference period are used, in line with Article 11(3).

4. When calculating the forecasted market value of CZC for the sharing of reserves, the change of economic surplus resulting from the incremental allocation of CZC to the balancing capacity market corresponds to the avoided costs for procuring balancing capacity.

5. The forecasting process, for each MTU, bidding zone border and direction, shall comprise the following steps:

    a. determination of the reference period, pursuant to paragraphs 6, 7 and 8;

    b. calculation of the forecasted market value of CZC as the balancing market spread across the selected bidding zone border in the selected reference period and direction: if there is no market spread in the specified direction, the market value of CZC is zero (0);

    c. if deemed necessary according to paragraph 7, application of adjustment factors to the market value of CZC calculated in the previous step.

6. By default, the following reference periods shall be chosen:

    a. the latest available working day at the time of the calculation, whenever CZC is allocated for a working day;

    b. the latest available weekend day at the time of the calculation, whenever CZC is allocated for a weekend day and

   c.   the latest available Sunday or bank holiday at the time of the calculation, whenever CZC is allocated for a bank holiday.

7. In case the contracting period is longer than one day, the reference period for each day of the contracting period shall be defined as per paragraph 6 and if applicable paragraph 8(a).

8. 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 exchange of balancing capacity or sharing of reserves and take appropriate actions, where needed:

   a.   in case this analysis shows that different reference periods are more suitable on a specific border, the TSOs shall choose the more accurate reference period, or a combination of them;

   b.   In case this analysis suggests it may furtherly improve the forecast, TSOs may use adjustment factors.

The metrics for assessing the performance of the forecast shall be defined in the technical document pursuant to Article 15 of this EE CZCA methodology.

9. Adjustment factors for the determination of the forecasted market value of CZC for the exchange of balancing capacity or sharing of reserves may be applied in an application of this EE CZCA methodology to improve the forecasted value of CZC for the exchange of balancing capacity or sharing of reserves between bidding zones. A description of the adjustment factors shall be included in the technical document pursuant to Article 15(1) of this EE CZCA methodology. This technical document shall include at least the parameters and methodology based on which the adjustment factors are calculated. Such parameters include, but not limited to: weather forecasts, load forecasts, RES production forecasts.

10. If adjustment factors are applied for the determination of this forecasted market value of CZC for the exchange of balancing capacity or sharing of reserve, this shall be included in the proposal for the application pursuant to Article 33(1) of the EBGL.

11. If the adjustment factors for the determination of the forecasted market value of CZC for the exchange of balancing capacity or sharing of reserves 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 at the expense of CZC allocated to the exchange of energy.

Article 10   Determination of the allocated volume of cross zonal capacity for the exchange of balancing capacity or sharing of reserves

1. The allocation of CZC for the exchange of balancing capacity or sharing of reserves is determined before the selection of standard balancing capacity bids by the procurement optimization function.

2. The objective for the allocation of CZC between SDAC and the exchange of balancing capacity or sharing of reserves shall be the maximization of the sum of economic surplus for SDAC and the economic surplus from the exchange of balancing capacity or sharing of reserves per trading day.

3. The optimal allocation of CZC for the exchange of balancing capacity or sharing of reserves is performed as follows:

   a.   If the forecasted market value of CZC for the exchange of balancing capacity or sharing of reserves is strictly higher than the forecasted market value of CZC for the exchange of energy, then CZC shall

be allocated for the exchange of balancing capacity or sharing of reserves within the constraint set by the volume limitations described in Article 7.

b. Otherwise, CZC shall not be allocated for the exchange of balancing capacity or sharing of reserves.

4. 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 products;

c. a standard balancing capacity bid and a day-ahead market bid.

5. For applying the allocation based on economic efficiency analysis, the following inputs shall be forwarded to the Cross-zonal capacity allocation optimization function:

a. forecasted market value of CZC for the exchange of energy;

b. forecasted market value of CZC for the exchange of balancing capacity or sharing of reserves, per product;

c. the TSOs' demand for the respective standard balancing capacity product;

d. the tolerance band for the reduced TSO balancing capacity demand dependent on the available cross-zonal capacities, based on sharing of reserves agreement of two or more TSOs to be applied with the allocation process based on economic efficiency analysis;

e. the minimum local reserve requirements; and

f. CZC allocation limitations in accordance with Article 7.

6. When applying the allocation based on economic efficiency analysis, the output of the cross-zonal capacity allocation optimization function is the volume of allocated CZC, per MTU, bidding zone border, product and direction.

Article 11   Pricing of cross zonal capacity

1. TSOs allocating CZC for the exchange of balancing capacity or sharing of reserves applying the allocation process based on economic efficiency analysis 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 CZC price defined in Article 11(1) for the exchange of balancing capacity or sharing of reserves applying the allocation process based on economic efficiency analysis shall be 0 EUR/MW within the widest area, constituted by bidding zones, where the exchange of balancing capacity or sharing of reserves is not restricted by the cross-zonal capacities, by the allocation constraints or by the limitations defined in Article 7, during a specific market time unit.

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 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 border.

Article 12   Firmness regime of cross zonal capacity

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 optimization function pursuant to Article 33(3) of the EBGL. The details for the costs of ensuring firmness in case of curtailment of firm CZC will be defined once two or more TSOs of the Greece Italy Capacity Calculation Region will establish common rules pursuant to Article 33(1) of EBGL for the application of the EE CZCA methodology.

2. According to Article 38(4) of the EBGL, cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves shall be used exclusively for the product where it was allocated or, being frequency restoration reserves with automatic activation, frequency restoration reserves with manual activation or replacement reserves. In accordance with 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, said CZC shall be released for the exchange of balancing energy with shorter activation times or for operating the imbalance netting process pursuant to Article 38(9) of the EBGL. Released CZC may be used by all TSOs which are using respective balancing platforms exchanging balancing energy with shorter activation times or operating imbalance netting.

3. The transmission constraints subject to Article 10 of this EE CZCA methodology shall be firm as soon as these are submitted to the balancing capacity procurement optimization function.

4. 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 3 of this Article, the costs associated with mitigating the effects of curtailment 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.

5. The costs of ensuring firmness shall be shared in accordance with the regional methodologies developed in accordance with Article 74 of CACM Regulation and Article 76 of the SO Regulation for cases which are within the scope of these methodologies.

6. Any costs of ensuring firmness which are outside the scope of the methodologies referred to in paragraph 5, shall be borne by the TSO requesting the curtailment.

7. TSOs shall not increase the reliability margin calculated pursuant to Article 21 of CACM due to the exchange of balancing capacity and or sharing of reserves for frequency restoration reserves and replacement reserves.

Article 13   Sharing of congestion income from cross zonal capacity

1. For each bidding zone border, product, direction and MTU, the congestion income is calculated as the price of CZC, as defined in Article 11 of this EE CZCA methodology, multiplied with the volume of balancing capacity that have been exchanged for the relevant product and direction on that bidding zone border.

2. The sharing of congestion income distribution will follow what is established by the Congestion income distribution methodology document, written in accordance with Article 73 of the Commission Regulation

(EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management.

Article 14   Publication

1. *Greece Italy* TSOs shall publish the EE CZCA methodology without undue delay after concerned NRAs have approved this proposal or a decision has been taken by the Agency for the Cooperation of Energy Regulators in accordance with Article 5(7), Article 6(1) and Article 6(2) of the EBGL.

2. Each TSO applying this EE CZCA methodology shall publish information on offered volumes as well as offered prices of procured balancing capacity, anonymized 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 EBGL.

3. Each TSO applying this EE CZCA methodology 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)(c) of the EBGL as defined in article 6(1)(a) and 6(1)(b) of this EE CZCA methodology, at the latest 24 hours after the allocation and no later than 6 hours before the use of the allocated CZC.

4. Each TSO applying this EE CZCA methodology 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 one week after the use of allocated CZC, pursuant to Article 12(3)(i) of the EBGL.

5. Each TSO applying this EE CZCA methodology shall publish the approved methodologies at least one month before its application pursuant to Article 12(3)(j) of the EBGL

6. Subject to approval pursuant to Article 18 of the EBGL, 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 pursuant to Article 12(5) of the EBGL.

7. *Greece Italy* TSOs applying this 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.

Article 15   Implementation Timeline

By twelve (12) months after approval of this EE CZCA methodology, Greece Italy TSOs shall develop a technical document that furtherly specifies, at least:

    a. inputs, outputs, objective function and constraints of the CZCA optimization function;

    b. processes involved in the application of the EE CZCA methodology;

    c. metrics for the decision to improve forecasting through adjustment factors or selection of specific reference period(s), according to Article 8(6) and 9(8);

    d. methodology and parameters for the calculation of adjustment factors, according to Article 8(7) and 9(9).

TSOs shall send such technical document to the relevant NRAs for information without undue delay.

Article 16   Language

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