

First amendment of Methodology for a harmonised allocation process of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves per timeframe

in accordance with Article 38(3) of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

31 July 2024

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NRA approval:	<input checked="" type="checkbox"/> outstanding	<input type="checkbox"/> approved

All TSOs, taking into account the following:

Whereas

- (1) This document provides an amendment to the Methodology for a harmonised allocation process of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves per timeframe (hereafter referred to as “harmonised cross-zonal capacity allocation methodology”) in accordance with Article 38(3) of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (“EB Regulation”) following the ACER decision No. 11/2023 of 19 July 2023 on the TSOs’ proposal for the harmonised cross-zonal capacity allocation methodology.
- (2) The harmonised cross-zonal capacity allocation methodology was approved by ACER on 19 July 2023. With the approval came a request for amendment of specific parts of the methodology, which should be submitted by 31 July 2024. The request for amendment concerned the below governance provisions, a voluntary analysis to the maximum volume assessment per Critical Network Element Contingency (CNEC) and the transition of the Congestion Income Distributions (CID) provisions concerning balancing from CACM to the harmonised cross-zonal capacity allocation methodology. Furthermore, the definitions of “interdependency” and “Set of Requirements” were added to the harmonised cross-zonal capacity allocation methodology together with a derogation provision on the implementation deadline for already operational TSO (according to EB Regulation Article 41(1)).
- (3) The harmonised cross-zonal capacity allocation methodology foresees that All TSOs jointly develop the set of requirements for the market-based cross-zonal capacity allocation optimisation function (CZCAOF) (software which is to be used only by those TSOs in a balancing capacity cooperation applying the market-based allocation process. Due to the different levels of involvement of TSOs, All TSOs consider it necessary to develop a change request process for future changes on the CZCAOF software which reflects the governance situation accordingly. Therefore, a two-layer change request process is introduced. All TSOs have the possibility to request a change to the software with given reasons. If the change proposed is not in line with the functionalities of the software developed with the initial set of requirements, All TSOs have to approve or discard the proposed change. If an operational change within the initial set of requirements is requested, only the application TSOs have a decision-right on the proposed change.
- (4) For the avoidance of doubt: change requests are always considered as change requests concerning the operation of the software. When a change request also affects the functionality, it is to be approved by All TSOs for their final approval. A change in the functionality of the software is expected to result in a change in the operation of the software. In contrast, a change in the operation of the CZCAOF software does not require a change in the functionality of the software. In line with the cost sharing principles set out in the methodology, costs arising from a change request shall be shared among all application TSOs following the sharing keys defined in Article 28.
- (5) All application TSOs per balancing capacity platform have to establish three processes for the operation of such platform: the CZCAOF, the forecast of day-ahead energy bids and the validation process of this forecast. To decide on any matter related to

these processes, All TSOs propose to establish a joint decision-making body for the balancing capacity platform in which every application TSO of that platform is represented. This decision-making body shall decide on matters and questions related to the balancing capacity platform. Any decisions to be taken by the decision-making body shall follow the rules defined in the harmonised cross-zonal capacity allocation methodology. If new members are to join an existing application, the joint decision-making body of the balancing capacity platform shall treat this request in good faith and support the new member to join the platform and the respective decision-making body. All TSOs believe that in such a way a non-discriminatory and transparent decision-making process is established to consider all interests of affected TSOs.

- (6) For the operation of the beforementioned processes run on a balancing capacity platform, All TSOs consider that all application TSOs of that platform shall jointly decide on and designate the entities responsible to run these processes. These entities shall be TSOs or companies owned by TSOs except for the forecast validation task which in accordance with the harmonised cross-zonal capacity allocation methodology shall be performed by a RCC. In addition, it is the application TSOs freedom to designate the same entity to operate more than one process. Any decision on the designation of an entity has to follow the decision-making rules set out in the harmonised cross-zonal capacity allocation methodology.
- (7) When two or more TSOs agree on an application of cross-border procurement of capacity and together establishes a balancing capacity platform, the application should also come to a common agreement on a single gate closure time (GCT) for the balancing capacity platform. Such decision should follow the provisions added to the amended harmonised cross-zonal capacity allocation methodology in Article 16(9). As the decision of GCT has a big influence in the market, the provision requires the application TSOs to publicly consult the stakeholders at least three (3) months ahead of its implementation and sets the minimum required consultation time for the market, which is at least two (2) weeks. Furthermore, it is specified that the announcement of the decided GCT should be made at least four (4) weeks ahead of taking effect. The announcement shall include also exceptions for instances such as GCT delay or re-opening of the bidding window. If such an instance occurs the application TSOs shall publish the information as soon as possible and with a reasonable lead time before the affected MTU.
- (8) The harmonised cross-zonal capacity allocation methodology allows for two or more TSOs, who wish to do cross border procurement of balancing capacity, to apply for a common market, which is enabled through a common balancing capacity platform utilised by the applications. Such applications might afterwards evolve over time with either more TSOs joining an already established BC platform, or new applications and thereby also new balancing capacity platforms being established. In such cases, a process for the possible evolution of BC platforms should be in place. Article 16(1)(a) and Article 16(1)(b) describes the ruleset to follow when establishing a balancing capacity platform. The rules are linked to the definition of “*Interdependency*”, which is explained further in whereas (9), where possible situations and effects of several balancing capacity platforms is considered. If a situation occurs where applications are forced to use the same balancing capacity platform, Article 16(1)(b) proscribes the process to align on which balancing capacity platform to choose. If no agreement between the involved TSOs can be found, quality majority voting rules apply.

- (9) In the harmonised cross-zonal capacity allocation methodology amendment, a definition of the term “*Interdependency*” has been added in Article 2(g). The definition was not part of the approved version of the harmonised cross-zonal capacity allocation methodology but has been added to avoid any possible misunderstandings of Article 16(1)(a) and 16(1)(b). The two articles relate to situations where applications need to use the same platform and the decision on which platform to choose which is a natural consequence of the regional setup that is possible in the harmonised cross-zonal capacity allocation methodology. As several applications within Europe can be live at the same time and TSOs can take part in several applications at the same time, situations where one application affects another application might occur. Such situations might be due to a TSO being in one application for positive aFRR whereas it is in another for positive mFRR. As aFRR and mFRR partially interfere it can happen that the TSO applies substitution of reserves between the two applications. Another situation of interdependency of applications could be if two or more applications are part of the same flow-based regime. Here, the flow-based capacity calculation affects both applications. To manage such situations, applications should join the same BC platform where it can then be taken into account. The definition added reflect such situations and reads: “*‘Interdependency’ means any situation with two or more applications being part of one flow-based regime or where one TSO applies substitution of reserves between two or more applications*”.
- (10) In the harmonised cross-zonal capacity allocation methodology amendment, a definition of the term “Set of Requirements” has been added in Article 2(h). The definition refers to the set of requirements that the CZCAOF software shall satisfy.
- (11) In accordance with the harmonised cross-zonal capacity allocation methodology, those applications that are already in operation with a market-based application according to EB Regulation Article 41(1) before the development of the market-based CZCAOF software, have an implementation deadline no later than twelve (12) months after the finalisation of the common optimisation function software (latest 31 July 2025). This deadline concerns the Nordic and Baltics TSOs and means that the two regions should be compliant with the harmonised cross-zonal capacity allocation methodology no later than 31 July 2026. The Baltic and Nordic TSOs have analysed and examined this deadline further and finds that it will be extremely difficult to achieve. The implementation of the common optimisation function software and compliance with the harmonised cross-zonal capacity allocation methodology in general, is very dependent on both the development timeline of the software itself but also the implementation task locally. Both Baltic and Nordic TSOs see a high level of complexity related to both tasks and fear that a situation of in-compliance for already operational markets could be a potential result. Therefore, in Article 27(5) of the harmonised cross-zonal capacity allocation methodology a maximum 24-month derogation has been added, which can be granted by the respective regulatory authorities if deemed necessary. This derogation should be justified towards the respective regulatory authorities according to Article 27(5)(a), (b), (c) and (d). The derogation option should be understood as a maximum 2-year prolonging of the implementation deadline of 31 July 2026, meaning that Baltic and Nordic TSOs potential derogation period could run until maximum 31 July 2028.
- (12) In the decision of the harmonised cross-zonal capacity allocation methodology ACER invited TSOs to investigate the possibilities to allow for different maximum

limits for the exchange of balancing capacity or sharing of reserves per CNEC in a flow-based region. All TSOs performed a study showing the feasibility of different limits per CNEC, which are the result of different intended limits per bidding zone border. The study can be found in the explanatory document. As the most suitable process to define the limits per CNEC might differ between different applications due to geographic and local network characteristics, no harmonized process to define the limits per CNEC has been defined, but guidelines for developing this process have been set. These guidelines guarantee that concerns of affected TSOs and Regulatory Authorities are respected in the process.

- (13) During the amendment of the congestion income distribution (CID) methodology (methodology of Article 73 of the CACM Regulation) further details about the congestion income requirements in the harmonised cross-zonal capacity allocation methodology were defined. Therefore, formulas have been provided on how to compare the congestion income calculated from exchange of balancing capacity or sharing of reserves with the congestion income which could have been generated for the amount of cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves if allocated to the single day-ahead coupling instead. If the comparison found a reduced congestion income due to exchange of balancing capacity or sharing of reserves, a compensation must be paid by the application TSOs. In Article 17(3) a formula has been introduced to define the distribution of the compensation calculated previously to each border of the CCR. Furthermore, a provision has been added to Article 17(2) that a CCR can decide to omit the comparison and the following compensation process. This possibility was added especially for CCRs, where all bidding zones in the CCR are part of a balancing capacity cooperation.
- (14) For the purposes of this amendment to the harmonised cross-zonal capacity allocation methodology, the terms used have the meaning given to them in Article 2 of the Electricity Regulation, Article 2 of the EB Regulation, Article 3 of the System Operation (SO) Regulation and Article 2 of the harmonised cross-zonal capacity allocation methodology.
- (15) Article 38(3) of the EB Regulation requires All TSOs to develop the harmonised cross-zonal capacity allocation methodology. The TSOs who are responsible for the development of the proposal and for its submission to ACER are the following: APG - Austrian Power Grid AG, VÜEN - Vorarlberger Übertragungsnetz GmbH, Elia - Elia Transmission Belgium S.A., ESO – Electroenergien Sistemen Operator EAD, HOPS - Croatian Transmission System Operator Ltd, ČEPS - ČEPS, a.s., Energinet - Energinet, Elering - Elering AS, Fingrid - Fingrid OyJ, Kraftnät Åland Ab, RTE - Réseau de Transport d'Electricité, S.A, Amprion - Amprion GmbH, TransnetBW - TransnetBW GmbH, TenneT GER - TenneT TSO GmbH, 50Hertz - 50Hertz Transmission GmbH, IPTO - Independent Power Transmission Operator S.A., MAVIR ZRt. - MAVIR Magyar Villamosenergia-ipari Átviteli Rendszerirányító Zártkörűen Működő Részvénytársaság ZRt., EirGrid - EirGrid plc, Terna - Terna SpA, Augstsprieguma tikls - AS Augstsprieguma tikls, LITGRID - LITGRID AB, CREOS Luxembourg - CREOS Luxembourg S.A., TenneT TSO - TenneT TSO B.V., PSE - PSE S.A., REN - Rede Eléctrica Nacional, S.A., Tranelectrica - C.N. Tranelectrica S.A., SEPS - Slovenská električná prenosová sústava, a.s., ELES - ELES,d.o.o, REE - Red Eléctrica de España S.A.U, Svenska Kraftnät - Affärsverket Svenska Kraftnät, SONI System Operator for Northern Ireland Ltd.

SUBMIT THE FOLLOWING PROPOSAL FOR AMENDMENT OF THE HARMONISED CROSS-ZONAL CAPACITY ALLOCATION METHODOLOGY TO ACER

Article 1
Interdependency and Set of Requirements definitions

Article 2 – Definitions – of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

- a) A new definition g shall be included and be read accordingly:

«‘Interdependency’ means any situation with two or more applications being part of one flow-based regime or where one TSO applies substitution of reserves between two or more applications. »

- b) A new definition h shall be included and be read accordingly:

«‘Set of Requirements’ means the requirements that the cross-zonal capacity allocation optimisation function software (Article 2 (c)) shall satisfy.»

Article 2
Linking of SBCP bids and sensitivity of TSO demand

Article 6 – Linking of SBCP bids and sensitivity of TSO demand – of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

- a) The paragraph 3 shall be amended and be read accordingly:

«Each TSO may link its TSO demand across the different SBCPs for the purpose of substitution of reserves for volume shortage and cost minimisation by applying this methodology in accordance with Article 6(2)(b) and (c). »

Article 3
Specific requirements for market-based allocation

Article 14 – Specific requirements for market-based allocation – of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

- a) The paragraph 1 shall be amended and be read accordingly:

«The single gate closure time per balancing capacity platform in accordance with Article 4(4) shall be agreed on by all application TSOs per each balancing capacity platform in accordance with the decision making process pursuant to Article 16(9). When deciding on a single gate closure time per balancing capacity platform, the relevant application TSOs shall consider the timings of the capacity calculation processes of

the relevant CCRs for a timely provisions of the data pursuant to paragraph (4) and Article 5(2)(a) and (b). »

b) The paragraph 3 shall be amended and be read accordingly:

«For the market-based allocation process a market-based cross-zonal capacity allocation optimisation function software shall be used. The market-based cross-zonal capacity allocation optimisation function software shall be developed by all market-based application TSOs in accordance with Article 27(3) and installed on a balancing capacity platform to perform the task in accordance with Article 16(2)(a). The market-based cross-zonal capacity allocation optimisation function software shall be subject to the governance of all market-based application TSOs in accordance with Article 15. »

c) The paragraph 4 shall be amended and be read accordingly:

«If the RCC carrying out the coordinated capacity calculation is not also designated to perform the market-based cross-zonal capacity allocation pursuant to Article 16(3), the RCC carrying out the coordinated capacity calculation for the relevant CCR in accordance with the capacity calculation methodology pursuant to Article 20 of the CACM Regulation shall provide the pre-final day-ahead capacity calculation results to the entity operating the market-based cross-zonal capacity allocation optimisation function software pursuant to Article 16(3) by no later than the gate closure time in accordance with paragraph (1). »

d) The paragraph 5 shall be amended and be read accordingly:

«All RCCs carrying out capacity calculation in the affected CCRs shall provide a confirmation once they received the data pursuant to Article 5(3)(b). The results pursuant to Article 5(2) by the market-based cross-zonal capacity allocation optimisation function software shall only be considered final once all RCCs carrying out capacity calculation in the affected CCRs provided such confirmation. Once these confirmations are provided, the entity operating the market-based cross-zonal capacity allocation optimisation function software in accordance with Article 16(3) shall send the results to the other entities in accordance with Article 5(4). If the RCC carrying out the coordinated capacity calculation is also designated to perform the market-based cross-zonal capacity allocation pursuant to Article 16(3), such confirmation process is not necessary. »

Article 4

Change request for the market-based cross-zonal capacity allocation optimisation function software

Article 15 – Governance for all market-based application TSOs – of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

a) The paragraph 2 shall be amended and be read accordingly:

« To ensure an effective change request process for the market-based cross-zonal capacity allocation optimisation function software, the following change request rules shall be implemented:

- a. All change requests to the cross-zonal capacity allocation optimisation function software that concern provisions as defined in the existing set of requirements and approved by All TSOs, shall be approved by All TSOs.
- b. All change requests to the cross-zonal capacity allocation optimisation function software that concern the operations of the balancing capacity platforms, shall be approved by all application TSOs.
- c. Any TSO can submit a change request to the cross-zonal capacity allocation optimisation function software.
- d. By default, any change request submitted is considered to be operational as defined in paragraph (2)(b) as long as it is in line with the existing set of requirements. If a change request contradicts with the existing set of requirements, it is considered as change request in accordance with paragraph (2)(a).
- e. Costs pursuant to Article 15(2) shall be shared among the countries of all application TSOs in accordance with the principles set out in Article 28(5). »

Article 5

Governance of balancing capacity platforms

Article 16 – Governance of balancing capacity platforms– of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

a) The paragraph 1 shall be amended and be read accordingly:

« TSOs, which want to jointly allocate cross-zonal capacity to support the cross-border procurement of balancing capacity for one or more SBCPs and applying a market-based allocation shall jointly establish or join a balancing capacity platform.

- a. In case there are interdependencies between different applications in accordance with Article 2(g), these applications shall use the same balancing capacity platform pursuant to paragraph (1).
- b. All TSOs of the interdependent applications pursuant to paragraph (1)(a) shall come to a unanimous agreement on a common balancing capacity platform to be used by all interdependent applications jointly. Where unanimity cannot be reached, qualified majority voting applies following the principles set out in paragraph (8). »

b) The paragraph 3 shall be amended and be read accordingly:

«All application TSOs per each balancing capacity platform shall designate one TSO or a company owned by TSOs to perform the CZCAOF

pursuant to paragraph (2)(a) and a TSO or company owned by TSOs to perform the forecasting process of day-ahead energy bids for the relevant bidding zones pursuant to paragraph (2)(b). All application TSOs per each balancing capacity platform may decide to designate the same entity for the different processes pursuant to paragraph (2). »

c) The paragraph 4 shall be amended and be read accordingly:

«All application TSOs per each balancing capacity platform shall designate one RCC for the forecast validation process under paragraph (2)(c). »

d) A new paragraph 5 shall be included and be read accordingly:

«The entities designated to perform the processes shall be acting for the benefit and on behalf of all application TSOs of each balancing capacity platform. They shall fulfil their tasks in accordance with the objectives of the EB Regulation, this methodology, the contractual framework of the respective applications, the decision-making body's decisions and the operational procedures. »

e) The paragraph 6 shall be amended and be read accordingly:

«When designating an entity pursuant to paragraphs (3) and (4), TSOs shall consider impacts on the efficiency of operation of the functions under paragraph (2) concerning the required exchanges of data mentioned in this methodology. The requirements in this methodology for the exchange of data between processes do not apply, if these processes, between which the data needs to be exchanged, are operated by the same entity. »

f) A new paragraph 7 shall be included and be read accordingly:

«In order to make effective and non-discriminatory decisions, each balancing capacity platform shall establish a decision-making body for all TSOs being part of at least one application of this platform. Each application TSO of the balancing capacity platform shall appoint one regular representative. The decision-making body decides on any matter or question related to the balancing capacity platform and its operation as long as the matter or question is relevant for the balancing capacity platform only. »

g) A new paragraph 8 shall be included and be read accordingly:

«Decisions related to the governance and operation of a balancing capacity platform shall be made unanimously by all application TSOs of the concerned platform via the joint decision-making body. Where unanimity cannot be reached, qualified majority voting applies which shall require a majority of:

- a. Application TSOs representing at least 55 % of the countries being part of all affected applications; and
- b. Application TSOs representing countries comprising at least 65% of the population of countries of all affected applications.

Decisions of a balancing capacity platform composed of five or less countries shall be decided based on unanimity. »

- h) A new paragraph 9 shall be included and be read accordingly:

«In accordance with Article 14(1) all application TSOs per balancing capacity platform shall agree on a single gate closure time for balancing service providers to submit balancing capacity bids. Before setting the exact time of a balancing capacity platform gate closure time, TSOs shall publicly consult stakeholders. Such a consultation will be performed at least three months before implementation of the gate closure time and last for at least two weeks. The announcement of the gate closure time shall be made at least four weeks before taking effect or any time there are changes to it. This announcement shall also include exceptions for instances when the gate closure time is delayed or when the bidding window is reopened. In these instances, the TSOs shall announce these changes as soon as possible and with a reasonable lead time before the actual application. »

- i) The paragraph 10 shall be amended and be read accordingly:

«TSOs proposing an application of the harmonised market-based allocation process in accordance with Article 38(1)(b) EB Regulation shall consider for the relevant implementation timeline of such proposal the time needed to get all processes pursuant to paragraph (2) operational. If such application needs to join an existing balancing capacity platform in accordance with paragraph (1), the proposing TSOs shall contact the TSOs and entities of the relevant balancing capacity platform(s), inform them about the expected amendments needed for integrating the proposed application, and all concerned parties shall jointly assess the time needed for the implementation of such proposal. »

Article 6

Process to define the maximum volume of allocated cross-zonal capacity

Article 17 –The process to define the maximum volume of allocated cross-zonal capacity for the exchange of balancing capacity or sharing of reserves for market-based allocation– of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

- a) The paragraph 1(b) shall be amended and be read accordingly:

« to resolve a situation where the limit for the maximum volume of cross-zonal capacity allocated for the exchange of balancing capacity in

a market-based allocation in accordance with paragraph 1(a) is not sufficient to satisfy TSO demand in a bidding zone, the percentage limit pursuant to paragraph 1(a) for the relevant day-ahead market time units may be increased based on the exemption rule pursuant to Article 41(2) of EB Regulation. The limit for the maximum volume of cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves for market-based allocation shall only be increased to the point until the TSO demand is satisfied and maximum up to 20% of the calculated cross-zonal capacity calculated for day-ahead market timeframe. If this maximum limit is still not sufficient to satisfy a TSO demand, a fallback procedure pursuant to Article 4 (9) shall be initiated. TSOs shall publish and notify all the regulatory authorities and neighbouring TSOs in case of CCRs where NTC approach is applied and all TSOs in CCR in case of CCRs where the flow-based approach is applied about each increase of the limit for the maximum volume of cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves for market-based allocation above the threshold set in paragraph 1(a). This notification shall include at least the final volume percentage of cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves for market-based allocation and the reasons for the shortage of balancing capacity bids in the importing bidding zone. The annual impact of such increases shall be reported pursuant to Article 26 (7) (e); »

b) The paragraph 2 shall be amended and be read accordingly:

«For CCRs where the coordinated net transmission capacity approach is applied each bidding zone border in each direction shall only apply one common limit in accordance with paragraph (1) for all SBCPs. »

c) A new paragraph 3 shall be included and be read accordingly:

«For CCRs where the flow-based approach is applied each Critical Network Element Contingency (CNEC) in each direction shall apply one common limit in accordance with paragraph (1) for all SBCPs. The TSOs of the corresponding application may develop a process to derive the limit per CNEC from intended limits per bidding zone border:

- a. The process to define the maximum limits per CNEC shall consider the impact of the limitation on all bidding zone borders in the CCR. The aim of the process is to efficiently realize different intended limits per bidding zone-border. If contradicting intended limits occur due to a close interconnection of borders in the flow-based region, application TSOs shall aim to reach a unanimous decision on the implementation of the limits. If no unanimous decision can be reached, qualified majority voting applies.
- b. Before submitting an application proposal according to 38(1) EB regulation, application TSOs shall consult with all TSOs in the CCR on the process to define the maximum limit per CNEC and the intended limits per bidding zone border.

- c. TSOs may increase the limit beyond 10% according to 17(1)(d), if they expect an unsatisfied TSO BC demand in a bidding zone or if their application has established a reliable and robust forecasting of the day-ahead market and significant welfare can be gained by an increased limit.
 - d. If an application sets the intended limit for one or more borders to more than 10% according to paragraph 17(1)d, TSOs of the concerned CCR have the right to veto against the decision based on market concerns. The veto shall be justified by showing the expected negative impact on the (day-ahead) market to application TSOs.
 - e. the final process to define the maximum limits and the intended limits per bidding zone border shall be part of the application proposal according to EB regulation Article 38(1). »
- d) A new paragraph 4 shall be included and be read accordingly:

« The exchange of balancing capacity or sharing of reserves shall, in addition to the limit defined in accordance with paragraph 1, be limited by the rules for the exchange and sharing of reserves in accordance with Title 8, Chapter 1 and 2 of the SO Regulation through the:

- a. maximum procurement volume of balancing capacity per direction for a specific bidding zone, or a set of bidding zones due to operational security requirements pursuant to Article 165(3)(g) of the SO Regulation;
- b. minimum procurement volume of balancing capacity per direction for a specific bidding zone, or a set of bidding zones defined in accordance with the dimensioning process pursuant to Article 157(2)(g) of the SO Regulation. »

Article 7

Determination of the forecasted market value of cross-zonal capacity for the exchange of energy for market-based allocation

Article 18 – Determination of the forecasted market value of cross-zonal capacity for the exchange of energy for market-based allocation– of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

- a) The paragraph 6 shall be amended and be read accordingly:

«Each entity determining forecasted day-ahead energy bids pursuant to Article 16(3) shall apply a forecast method for forecasting day-ahead energy bids which is agreed upon the application TSOs of the respective balancing capacity platform in accordance with Article 16 (8) and shall aim for determining the forecasted day-ahead energy bids for each bidding zone and each market time unit most accurately. »

- b) The paragraph 7 shall be amended and be read accordingly:

«Each entity determining forecasted day-ahead energy bids pursuant to Article 16(3) shall consider the forecast error pursuant to Article 19(1). By no more than one year of operation of the harmonised market-based allocation process with at least two applications, All TSOs shall submit an amendment to this methodology in accordance with Article 27(4) to include provisions for a harmonised consideration of the forecast errors to protect the SDAC against over-allocation of cross-zonal capacity due to incorrect forecast. All TSOs shall base their amendments on an impact assessment considering the expected forecast accuracy and different measures to mitigate the negative impact on SDAC from inaccurate forecasts. More specifically, TSOs shall at least assess the impact of mark-up values or factors on the forecasted market value of cross-zonal capacity for the exchange of energy versus the impact of reducing the maximum volume limit for the allocation of cross-zonal capacity for the exchange of balancing capacity. »

Article 8

Forecast validation process

Article 19 – Forecast validation process– of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

c) The paragraph 1 shall be amended and be read accordingly:

«The RCC designated in accordance with Article 16(4) shall carry out forecast validation to monitor the efficiency of determining the forecasted market value of cross-zonal capacity for the exchange of energy. Such forecast validation shall include at least:

- a. the determination of forecast errors; and
- b. analysis of the method for forecasting day-ahead energy bids and resulting recommendation for eventual improvements. »

d) The paragraph 2 shall be amended and be read accordingly:

«The RCC carrying out the forecast validation shall provide the results of the validation process pursuant to paragraph (1) to the application TSOs of the respective balancing capacity platform, to all TSOs of the involved CCR(s) and, if the RCC performing forecast validation is not also designated to perform forecasting of day-ahead energy bids pursuant to Article 16 (3) to the entity performing this forecasting of day-ahead energy bids. »

e) The paragraph 6 shall be amended and be read accordingly:

« For the calculation of forecast error two, the RCC carrying out the forecast validation shall compare per day-ahead market-time unit the amount of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves allocated with the market-based allocation process with the optimal allocation based on actual day-ahead energy bids

from the relevant day instead of forecasted bids. If the market-based allocation resulted in higher allocation of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves than what would have been allocated with actual day-ahead energy bids, the difference shall be used for forecast error two. For the determination of forecast error two, the volume of this over-allocated cross-zonal capacity for the exchange of balancing capacity or sharing of reserves shall be weighted with the welfare impact pursuant to paragraph (4). The validation period considered for such weighting factor shall be specified by all application TSOs of the relevant balancing capacity platform in accordance with Article 16(8). »

f) The paragraph 7 shall be amended and be read accordingly:

«If the RCC performing forecast validation is not also designated to perform the market-based cross-zonal capacity allocation pursuant to Article 16(3), all application TSOs of a balancing capacity platform shall provide the RCC with the data pursuant to Article 21(2)(b) and (c) and Article 21(3) and other data necessary to carry out forecast validation pursuant to paragraph (1)(a). »

g) The paragraph 8 shall be amended and be read accordingly:

«If the RCC performing forecast validation is not also designated to perform the market-based cross-zonal capacity allocation pursuant to Article 16(3), the entity operating the cross-zonal capacity allocation pursuant to Article 16(3) shall provide the RCC access to the market-based cross-zonal capacity allocation optimisation function software and shall submit to the RCC the results pursuant to Article 5(2)(a) and (b) to carry out forecast validation pursuant to paragraph (1)(a). »

h) The paragraph 9 shall be amended and be read accordingly:

«If the RCC performing forecast validation is not also designated to perform forecasting of day-ahead energy bids pursuant to Article 16(3), the entity determining the forecasted day-ahead energy bids shall provide the RCC with the data pursuant to Article 21(2)(a), relevant details related to application the forecast method defined in accordance with Article 18(6) and other data necessary to carry out forecast validation pursuant to paragraph (1)(b). »

Article 9

Determination of the allocated volume of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves for market-based allocation

Article 21 – Determination of the allocated volume of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves for market-based allocation– of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

- a) The paragraph 3 shall be amended and be read accordingly:

«The constraints for market-based cross-zonal capacity allocation by the market-based cross-zonal capacity allocation optimisation function software are:

- a. the maximum volume of allocated cross-zonal capacity for the exchange of balancing capacity or sharing of reserves defined pursuant to Article 17 (1); and
- b. the minimum and maximum procurement volume of balancing capacity defined pursuant to Article 17 (4); and
- c. links between bids for different SBCP in accordance with Article 6 (4), if any. »

Article 10

Congestion income distribution for the balancing timeframe

Article 24 – Sharing of congestion income from cross-zonal capacity– of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

- a) The paragraph 1 shall be amended and be read accordingly:

«The congestion income coming from any application using an allocation process as defined in this methodology will be considered as day-ahead congestion income and as such shall be shared in accordance with the methodology of Article 73 of the CACM Regulation and in accordance with Article 40(3) and Article 41(4) of the EB Regulation.»

- b) A new paragraph 2 shall be included and be read accordingly:

«On a monthly basis, TSOs of an application applying the market-based allocation in accordance with Article 38(1) of the EB Regulation, or the entity to whom the task is delegated, shall compare the monthly congestion income calculated in accordance with paragraph (1) with the congestion income which could have been generated for the amount of cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves if allocated to the single day-ahead coupling instead as calculated with the below formulas:

- For cNTC CCRs $CI'_{CCR,T}$ is calculated according to the formula

$$CI'_{CCR,T} = adj_{CCR,T} \times \sum_{t \in T, b \in B_{CCR}} S_{b,t}^{BC} \times \max(0, MS_{b,t})$$

- For FB CCRs $CI'_{CCR,T}$ is calculated according to the formula

$$CI'_{CCR,T} = adj_{CCR,T} \times \sum_{t \in T, o \in CNEC_{CCR}} \mu_{o,t}^{CNEC} \times BEC_{o,t}$$

Where:

T is the set of MTUs in a given month

B_{CCR} is the set of directed borders in a CCR (i.e. this set includes both borders A-B and B-A)

$CNEC_{CCR}$ is the set of CNECs in a given CCR

$S_{b,t}^{BC}$ is the cross-zonal capacity reserved by allocation for the exchange of balancing capacity or sharing of reserves on directed border b in MTU t

$MS_{b,t}$ is the market spread for energy on directed border b in MTU t (in the case of AHC/Allocation Constraints, the market spread is between the Virtual Bidding Zones)

$\mu_{o,t}^{CNEC}$ is the Shadow Price of CNEC o in MTU t

$BEC_{o,t}$ is the capacity reserved on CNEC o in MTU t by allocation of the cross-zonal capacity for the exchange of balancing capacity or sharing of reserves

$adj_{CCR,T}$ is the adjustment factor which is used to adjust the compensation amounts per CCR. By default, it is set to 1. If there is agreement following the respective voting arrangement at CCR level, TSOs of the concerned CCR may define a different adjustment factor. The adjustment factor $adj_{CCR,T}$ for $CI'_{CCR,T}$ can be used to account for the overestimation of the congestion income which could have been generated in the day-ahead market due to the fact that the expected price spreads with the increased capacities would be smaller compared to the price spreads obtained with the actually allocated capacities in day ahead.

The monthly compensation on the CCR level shall be calculated with the below formula:

$$C_{CCR,T} = \max(CI'_{CCR,T} - EBCI_{CCR,T}, 0)$$

Where:

$EBCI_{CCR,T}$, is the congestion income from balancing capacity generated in a CCR in a given month.

$CI'_{CCR,T}$, is the congestion income in a given CCR in a given month which could have been generated for the amount of cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves if allocated to the single day-ahead coupling instead.

The respective TSOs of the application shall inform all TSOs and regulatory authorities of the relevant CCR(s) and ACER of the outcome of this assessment.

The compensation process described in Article 24 (2) can be omitted in case there is agreement among the TSOs of the concerned CCR following the respective voting arrangement. »

c) A new paragraph 3 shall be included and be read accordingly:

«If the comparison pursuant to paragraph 2 shows a deficit on a monthly basis of generated congestion income following the allocation of cross-

zonal capacities for the exchange of balancing capacity and sharing of reserves, the TSOs of an application applying the market-based allocation in accordance with Article 38(1) of the EB Regulation shall pay compensation to the single day-ahead coupling to cover such deficit. The costs of such compensation shall be split among the TSOs of the respective application in accordance with the distribution of shares of overall decreased procurement costs per TSO from the application of the market-based allocation in the relevant month. The compensation, calculated in accordance with paragraph 2 should be shared among all TSOs of the relevant CCR(s) in accordance with the shares of decreased congestion income per border and MTU ($CI_{b,t}^{DEC}$) after reduction of received congestion income from balancing capacity.

For both FB and cNTC CCRs, a part of the compensation assigned for period T for border b is calculated using the following formula:

$$c_{b,T} = \frac{\sum_{t \in T} \max(CI_{b,t}^{DEC} \times Corr_t - EBCI_{b,t}, 0)}{\sum_{t \in T, b \in B_{CCR}} \max(CI_{b,t}^{DEC} \times Corr_t - EBCI_{b,t}, 0)} \times C_{CCR,T}$$

- For cNTC CCRs $CI_{b,t}^{DEC}$ is calculated according to the formula:

$$CI_{b,t}^{DEC} = \sum_{p \in P} \max(MS_{b,t}, 0) \times CF_b^{BC,p}$$

- For FB CCRs $CI_{b,t}^{DEC}$ is calculated according to the formula:

$$CI_{b,t}^{DEC} = \sum_{p \in P} |MS_{b,t} \times \max(AAF_{b,t}^{BC,p}, 0) \times SF_t| \text{ if } AAF_{b,t} \geq 0$$

$$CI_{b,t}^{DEC} = 0 \text{ if } AAF_{b,t} < 0$$

- Since the sum of decreased congestion income $CI_{b,t}^{DEC}$ (used for sharing the compensation) for all borders b may be smaller than the congestion income that could have been generated $CI'_{CCR,t}$ (used when calculating compensation amount), a correction factor $Corr_t$ is needed to ensure that not all compensation $c_{b,T}$ is zero when there actually is compensation to be shared:

$$Corr_t = \frac{CI'_{CCR,t}}{\sum_{b \in B_{CCR}} CI_{b,t}^{DEC}}$$

Where:

T is the set of MTUs in a given month

P is the set of products available for the exchange or sharing of reserves

B_{CCR} is the set of directed borders in a CCR (i.e. this set includes both borders A-B and B-A)

$CF_{b,t}^{BC,p}$ is the allocated capacity on directed border b from product p in MTU t

$AAF_{b,t}^{BC,p}$ is the resulting AAF on directed border b from product p in MTU t

$AAF_{b,t}$ is the resulting AAF on directed border b from energy exchange in MTU t

($AAF_{A \rightarrow B,t} = - AAF_{B \rightarrow A,t}$)

$MS_{b,t}$ is the market spread for energy on directed border b in MTU t (in the case of AHC/Allocation Constraints, the market spread is between the Virtual Bidding Zones)

SF_t is the scaling factor used for scaling the negative CI from energy congestions in MTU t (as defined in Art 7.2 of Congestion Income Distribution methodology pursuant to Art. 74 of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management).

Afterwards, $c_{b,T}$ is distributed between the relevant TSOs for border b using the same sharing keys as those used for sharing congestion income from energy for this border. »

Article 11

Fallback Procedures

Article 25 – Fallback Procedures – of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

- a) The paragraph 2 shall be amended and be read accordingly:

«All application TSOs per balancing capacity platform shall agree in accordance with Article 16(8) on fallback procedures in case of the cross-zonal capacity allocation process based on market-based allocation cannot be conducted fully or partially in due time, considering the timings of the capacity calculation processes of the relevant CCRs for a timely provisions of the data pursuant to Article 14(4) and Article 5(2)(a) and (b). Such a fallback procedure shall be described by the applicant TSOs in the proposal pursuant to Article 33(1) of the EB Regulation. »

Article 12

Publication of Information

Article 26 – Publication of Information – of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

- a) The paragraph 7 shall be amended and be read accordingly:

« Each RCC carrying out forecast validation in accordance with Article 16(4) shall at least every three (3) months from the start of an application, publish a report on the forecast efficiency. The report shall include at least:

- a. statistics on the welfare loss from inefficient forecasts indicated by forecast error one in accordance with Article 19(4);
- b. statistics of a comparison of forecast error one accordance with

- Article 19(4) with the overall welfare generated by the market-based allocation process in accordance with Article 19(5);
- c. statistics on the over allocation indicated by forecast error two in accordance with Article 19(6);
 - d. statistics on the welfare loss from the forecast error two consideration pursuant to Article 18(7);
 - e. an assessment of occurred increases of the limits for the maximum volume of cross-zonal capacity allocated for the exchange of balancing capacity, including statistics on the number of incidents, increased volumes and percentages, reasons for the incidents and an analysis of the economic surplus effects on the SDAC;
 - f. an assessment of impacts on the economic surplus of the SDAC and economic surplus from the exchange of balancing capacity from the application of the market-based and the specific impact following an increase of a default limit for the maximum volume of cross-zonal capacity allocated for the exchange of balancing capacity;
 - g. where necessary, recommendations pursuant to Article 19(1)(b) to improve the accuracy of the forecast method pursuant to Article 18(6); and
 - h. an assessment of forecast efficiency and welfare potential a possible increase of the maximum volume limit of cross-zonal capacity in accordance with Article 17(1) and if relevant recommendations for amendments of these limits. »

Article 13 Implementation timeline

Article 27 –Implementation timeline– of the harmonised cross-zonal capacity allocation methodology shall be amended as follows:

- a) The paragraph 1 shall be amended and be read accordingly:

«At the latest by 31 July 2024, All TSOs shall:

- a. submit a proposal for an amendment of this methodology to complement this methodology in accordance with Article 15(2), Article 16(7), Article 16(8) and Article 16(9);
- b. submit a proposal for an amendment of the congestion income distribution methodology pursuant to Article 73 of CACM Regulation to consider congestion income from the exchange of balancing capacity or sharing of reserves in accordance with Article 24; and
- c. develop any further requirements which are not subject to approval of this methodology but necessary for the designation of entities pursuant to Article 16 (3), for the development of the market-based cross-zonal capacity allocation optimisation function software, and for the fulfilment of the publication requirements pursuant to Article 26.»

b) The paragraph 5 shall be amended and be read accordingly:

«TSOs subject to a methodology pursuant to Article 38(1) of the EB Regulation which was approved before the implementation pursuant to paragraph (3) for the application of a CCR's methodology pursuant to Article 41(1) of the EB Regulation, may continue their application with a non-harmonised market-based allocation process for no longer than twelve (12) months after the implementation deadline pursuant to paragraph (3). An additional derogation of maximum 24-month to this Article may be granted by the respective regulatory authorities if deemed necessary. The request for derogation shall include the following information:

- a. the provisions from which a derogation is requested;
- b. the requested derogation period;
- c. a detailed plan and timeline specifying how to address and ensure the implementation of the concerned provisions of this Methodology after expiration of the derogation period; and
- d. an assessment of the consequences of requested derogation on adjacent markets. »

c) The paragraph 6 shall be amended and be read accordingly:

«If an application intends to apply the harmonised market-based allocation process, which has interdependencies in accordance with Article 16(1)(a) with the existing application pursuant to paragraph (5), the application pursuant to paragraph (5) shall not use a non-harmonised market-based allocation process once the interdependent allocation is operational. »