Public consultation on the proposals for the HCZCAM and the RCC tasks of sizing and procurement

Introduction

All transmission system operators (‘TSOs’) and ENTSO-E have submitted to ACER the following proposals:

- for the harmonised methodology for cross-zonal capacity allocation for the exchange of balancing capacity or sharing of reserves in accordance with Article 38(3) of Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing (‘HCZCAM Proposal’);
- for the Regional Coordination Centres’ (‘RCC’) task of regional sizing pursuant to Article 37(1)(j) of Regulation (EU) 2019/943 (‘Sizing Proposal’); and
- for the RCCs’ task of facilitating the procurement of electricity balancing capacity pursuant to Article 37(1)(k) of Regulation (EU) 2019/943 (‘Procurement Proposal’)

ACER will review these proposals and revise them where necessary, in order to ensure that they are in line with the purpose of the Regulation (EU) 2017/2195 and Regulation (EU) 2019/943. ACER may also introduce editorial amendments to improve clarity, conciseness, consistency and readability of the Proposals.

The objective of this consultation is to gather views and information from stakeholders to inform ACER’s decision-making.

This consultation is addressed to all interested stakeholders, including regulatory authorities, market participants and transmission system operators.

This consultation is addressed to all interested stakeholders in the EU and EEA, including regulatory authorities, market participants and transmission system operators.

Please respond to this survey by 15 May 2023, 23:59 hrs (CET).

In case you have questions related to this survey, please contact Martin Viehhauser (martin.viehhauser@acer.europa.eu).

Data protection
ACER will process personal data of the respondents in accordance with Regulation (EU) 2018/1725, taking into account that this processing is necessary for performing ACER’s consultation tasks. More information on data protection is available on ACER’s website.

ACER will not publish personal data.

Confidentiality

Following this consultation, ACER will make public:

- the number of responses received;
- company names, unless they should be considered as confidential;
- all non-confidential responses; and
- ACER’s evaluation of responses. In the evaluation, ACER may link responses to specific respondents or groups of respondents.

You may request that the name of your company or any information provided in your response is treated as confidential. To this aim, you need to explicitly indicate whether your response contains confidential information.

You will be asked this question at the end of the survey.

☑️ I have read the information provided in this section.

Respondent's data

* Name and surname:  
  This information will not be published.

* Company:  
  ENTSO-E

* Country:  
  Belgium

* Email:  
  This information will not be published.

Background documents
Legal acts


Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (‘EB Regulation’)

Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (‘SO Regulation’)


Relevant documents

TSOs’ submission of the HCZCAM Proposal (including an explanatory document)

ENTSO-E’s submission of the Sizing Proposal (including an explanatory document)

ENTSO-E’s submission of the Procurement Proposal (including an explanatory document)

Topic 1: Harmonised methodology for cross-zonal capacity allocation for the exchange of balancing capacity or sharing of reserves (HCZCAM Proposal)

Background

Pursuant to Article 38(3) of the EB Regulation, the HCZCA methodology harmonises cross-zonal capacity allocation processes (i.e. Articles 40, 41 and 42 of the EB Regulation). Therefore, it will replace the existing methodologies pursuant to Articles 40, 41 and 42. The methodologies approved under these Articles are:

- The methodology for a co-optimised allocation process of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves pursuant to Article 40(1) of the EB Regulation (‘co-optimisation methodology’) (ACER Decision 12-2020). Following this methodology, the following related documents were published:
  - Implementation impact assessment
  - Co-optimisation roadmap study
  - all TSOs’ requirements for the price coupling algorithm
- The methodologies for a market-based allocation process of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves pursuant to Article 41(1) of the EB Regulation (‘market-based methodologies’) for the following capacity calculation regions:
The HCZCAM Proposal addresses the co-optimised allocation process pursuant to Article 40 of the EB Regulation and the market-based allocation process pursuant to Article 41 of the EB Regulation, but does not include an allocation process based on economic efficiency analysis pursuant to Article 42 of the EB Regulation.

The co-optimised allocation process

The HCZCAM Proposal includes the co-optimised allocation process which was so far addressed by the methodology for a co-optimised allocation process of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves pursuant to Article 40(1) of the EB Regulation (‘co-optimisation methodology’). Due to the existing European-wide applicability of the co-optimisation methodology and the limited developments since its approval, the content changes of the provisions for the co-optimised allocation process in the HCZCAM Proposal compared to the co-optimisation methodology are very limited.

Since the co-optimised allocation process requires actual balancing capacity bids together with the actual bids from market participants in the day-ahead market, it can only be done within the single day-ahead coupling (SDAC) process. Therefore, as already foreseen by the co-optimisation methodology, the co-optimised allocation process pursuant to the HCZCAM Proposal would be implemented via the TSOs’ submission of the requirements for the SDAC algorithm pursuant to Article 37 of the CACM Regulation. While the development of the TSOs’ set of requirements for the price coupling algorithm for considering the co-optimised allocation process needs to be addressed in the implementation article of the HCZCAM Proposal, the discussions on the actual implementation of the co-optimised allocation process within SDAC is subject to the algorithm methodology pursuant to Article 37 of the CACM Regulation. Following the TSOs’ submission of requirements for the price coupling algorithm resulting from the co-optimisation methodology, a submission of an amendment proposal of the algorithm methodology is expected for November 2023.

While the HCZCAM Proposal entails limited needs for updating the set of submitted requirements for the price coupling algorithm. However, if such update would be needed following the approval of the HCZCAM Proposal, TSOs may still submit an updated new set of requirements to NEMOs as an input to such algorithm methodology amendment process after ACER’s approval of the HCZCAM Proposal.

Q1.1 Please provide your comments on the HCZCAM Proposal’s provisions regarding the co-optimised allocation process.

Please always indicate the relevant Article in the Proposal which your comment refers to.
All TSOs agree to update requirements for co-optimisation as input to the algorithm methodology amendment process. However, these updated requirements should be based on the Research and Development (R&D) activities described in the 2022 N-SIDE feasibility study. All TSOs believe that the R&D activity would be more efficient if market participants’ (MPs) inputs were included in the bidding guide, as this would result in a co-optimisation solution that is not only technically workable but also useful to market participants. There are two main reasons for including a bidding guide in R&D work:
1. NEMOs and TSOs need to know what is the right bidding structure from the MPs’ point of view in order to offer them a co-optimisation function that satisfies the algorithm method modification requested by ACER and is useful to MPs.
2. NEMOs and TSOs may develop more than one co-optimisation solution, and they must evaluate which alternative is most beneficial to MPs regardless of all other requirements (e.g., welfare maximisation, algorithm performance, and robustness).
However, NEMOs and TSOs will not be able to comply with Section 2.2 of ACER’s amendment request to carry out these R&D activities as early as 2023 because their R&D pipeline is fully booked until at least the end of 2025 by other projects with a legally binding deadline or already in progress. Thus, if this R&D for co-optimisation is carried out, MCSC would have to abandon R&D of other priority projects with a legally binding deadline, such as 15 Min MTU in SDAC. Moreover, depending on other priorities set by the EC and ACER, in collaboration with the NEMOs and TSOs, including the accession of Energy Community Countries, the pipeline will be full even longer.

The market-based allocation process

In comparison with the co-optimised allocation process, the market-based allocation process is currently subject to regional market-based methodologies, which require harmonisation with the HCZCAM Proposal. Further, while the co-optimised allocation process needs to be integrated in SDAC and will therefore be subject to the governance of the MCO function, the market-based allocation process is not subject to an existing governance structure. The required forecasting process is another element which is not required for the co-optimised allocation process but needs to be considered for the market-based allocation process.

In addition to revisions of the HCZCAM Proposal to improve structure and clarity and to ensure compliance with the legal requirements, ACER sees the possible need for revising also substantial parts of the HCZCAM Proposal, as outlined below.

Deletion of provisions for allowing pay-as-bid and provisions partly addressing an ‘inverted market-based process’

While the co-optimised allocation process is limited to the principle of marginal pricing (pay-as-cleared), Article 4(3) of the HCZCAM Proposal also allows pay-as-bid as a pricing principle for the market-based allocation process. In ACER’s Decision 11-2021 on the Core market-based methodology the use of the pay-as-bid pricing principle for the Core market-based process was rejected. The main reason for this was the requirement for equal treatment pursuant to Article 41(4) of the EB Regulation and the need for marginal pricing in SDAC pursuant to Article 38(1)(b) of the CACM Regulation. An appeal against this decision was dismissed by ACER’s Board of Appeal in case A-013-2021.

Therefore, ACER intends to delete all provisions related to the pay-as-bid pricing principle in the HCZCAM Proposal.
Q1.2.1 Do you agree to the intended revisions by ACER concerning the pricing principle?
- Yes
- No

Q1.2.2 Please provide your comments concerning the pricing principle.

Regarding the deletion of provisions for allowing pay-as-bid, TSOs would like to reiterate the concern that the argument for the efficiency of the pay-as-cleared principle is based on certain assumptions regarding the structure of the markets (e.g., with regard to liquidity/competition) which may not be fulfilled when a small subset of TSOs establishes a balancing capacity cooperation. I.e., the mandatory requirement to apply the pay-as-cleared principle when establishing this cooperation while allocating cross-zonal capacity (CZC) for the exchange of balancing capacity or sharing of reserves may cause major inefficiencies regarding social welfare and may prove to be an obstacle for the further integration of markets.

The major inefficiencies refer to an increased effect of market power with its inherent cost/price risk, or discrimination against smaller balancing service providers who do not have/cannot afford tools and methods incl. human resources to prevail against larger balancing service providers. The obstacle to further integration of markets can be observed based on the published accession roadmaps of TSOs joining the balancing energy platforms PICASSO and MARI with almost all TSOs postponing their accessions to the latest possible point in time.

All TSOs strongly advocate for keeping the pay-as-bid principle. The equal treatment of CZC allocated for the exchange of balancing capacity or sharing of reserves vs. CZC allocated for the exchange of energy can only be ensured if the assumptions underlying the efficiency of the pay-as-cleared principle are fulfilled in both markets – balancing capacity as well as energy; as long as this is not the case and/or cannot be ensured, the pay-as-bid principle has to be available as an alternative.

Also, due to indivisible (non-convex) costs and complex bidding structure in many capacity markets, eliminating other options than marginal pricing will give limited possibility to change and create an efficient market design, without changing the bidding structure.

TSOs would like to mention that there is no provision for pricing of balancing capacity in the EB Regulation.

The HCZCAM Proposal addresses the possibility of an ‘inverted market-based process’, which would require real bids from SDAC and a forecasted market value of cross-zonal capacity for the exchange of balancing capacity and sharing of reserves. However, the HCZCAM Proposal is incomplete regarding the inverted market-based process since it does not include a description of forecasted market value for CZC for the exchange of balancing capacity or sharing of reserves in accordance with Article 41(1)(b) of the EB Regulation. Further, an inverted market-based process could only be applied once co-optimisation is available and there is currently no concrete intention to apply such process.

Therefore, ACER intends to delete all provisions concerning the inverted market-based process in the HCZCAM Proposal, while all TSOs may introduce such process in a complete form through a proposal for an amendment to the HCZCAM.

Q1.2.3 Do you agree to the intended revisions by ACER concerning the ‘inverted market-based’ process?
- Yes
- No

Q1.2.4 Please provide your comments concerning the ‘inverted market-based’ process.
Limits for maximum volume of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves

The HCZCAM Proposal describes the process to define the maximum volume of allocated cross-zonal capacity for the exchange of balancing capacity or sharing of reserves for the co-optimised allocation process under Article 8 of the HCZCAM Proposal and for the market-based allocation process under Article 16 of the HCZCAM Proposal. Further, there are additional provisions for such limits under Articles 7 and 13 of the HCZCAM Proposal. Some of these limits are subject to TSOs’ decisions without the involvement of regulatory authorities.

ACER is of the opinion that any limits beyond the ones needed in accordance with the SO Regulation should be well justified and subject to regulatory approval. Therefore, ACER intends to revise these parts of the HCZCAM Proposal to the effect that default limits from the EB Regulation apply to the processes to define the maximum volume of allocated cross-zonal capacity for the exchange of balancing capacity or sharing of reserves, while other limits are allowed if justified and approved within an Article 38(1) of EB Regulation proposal. A similar provision is already included in the co-optimisation methodology.

Q1.2.5 Do you agree to the intended revisions by ACER concerning provisions on limits for maximum volume of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves?

- Yes
- No

Q1.2.6 Please provide your comments concerning provisions on limits for maximum volume of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves.

Regarding the revision of maximum volume limits, TSOs would like to highlight that Article 16 of the HCZCAM proposal is in accordance with Article 41(1)(d) of the EB Regulation. TSOs would also like to bring attention to Article 41(2) of the EB Regulation concerning the exemption rule to the 10% limitation, which is referred to in the HCZCAM proposal. The combination of Articles 41(1)(d) and 41(2) of the EB Regulation clearly indicates that maximum volume limits other than 10% can be applied until the co-optimised allocation process is harmonised.

Furthermore, TSOs would like to stress that there are cases where there is a justified need for higher regional volume limitations (such as those defined in the All TSOs proposal on the HCZCAM) and that this is addressed in the HCZCAM proposal.

Required clarifications regarding forecast process, forecast error and forecast error consideration

The Inverted Market-Based content is not further elaborated in the current version of the CZCA Harmonised Methodology and the Explanatory Document but is kept to the minimum possible. TSOs agree to the intended revisions by ACER concerning the 'inverted market-based' process.
ACER understands that the method for forecasting the cross-zonal capacity market value for SDAC described in the HCZCAM Proposal requires the market-based cross-zonal capacity allocation optimisation function and the following inputs:

- Preliminary day-ahead cross-zonal capacity results from the capacity calculation methodology pursuant to Article 21 of the CACM Regulation; and
- Forecasts day-ahead energy bid curves.

While it is important to differentiate between the forecasted market value of cross-zonal capacity for the exchange of energy and forecasted SDAC bid curves, the HCZCAM Proposal does not clarify this differentiation and mostly just refers to an undefined ‘forecasting process’. Therefore, ACER intends to clarify and improve the description of how to determine the forecasted market value of cross-zonal capacity for the exchange of energy. The HCZCAM Proposal defines the forecast error under Article 2(2)(f) and how such forecast error should be considered in the market-based allocation process under Article 17.

While the description on how to consider the forecast error should be generally improved, ACER is of the opinion that, by default, the negative impact of a forecast error on the day-ahead market should be similar throughout different regions. Hence, forecast errors should be considered in a harmonised manner throughout any regions which are applying the market-based process. In general, ACER is concerned about the lack of TSOs’ assessment of the potential efficiency of the proposed forecasting method. Such assessment and any resulting conclusions, would also be helpful when determining how a forecast error should be considered in the market-based allocation process. Harmonising a forecast error consideration based on the proposed approach of reducing the maximum cross-zonal capacity limit without having clarity on the potential forecast accuracy could be problematic. While such approach can limit the impact of a forecast error, it could also significantly reduce the effectiveness of the whole market-based process, since at some point it would not allow any allocation of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves. A forecast error consideration in the form of a mark-up (or something equivalent) could reduce the positive forecast error to protect the day-ahead market against inefficient forecast. With such forecast error consideration, allocation of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves would in general still be possible, but having considerable forecast errors this would only be possible if the market value of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves is significantly higher than the expected market-value from day-ahead energy.

Therefore, ACER sees the need to further assess the forecast efficiency of the proposed method and improve and harmonise the forecast error consideration.

**Q1.2.7** Do you agree to the concerns shared by ACER concerning forecasting and the forecast error consideration?
- [ ] Yes
- [ ] No

**Q1.2.8** Please provide your comments concerning the process for forecasting the market value of cross-zonal capacity for the exchange of energy.

All TSOs share ACERs view that a more detailed description of the forecasting process which includes the step required or the forecasting and forecast consideration could be useful. However, all TSOs would like to stress that there has been little to no experience with forecasting, so a final assessment of the forecasting
and the impact of the forecast errors is not yet possible. Once the harmonised market-based allocation is implemented and its application has gained sufficient operational experience, an analysis of the efficiency and possible improvements of the forecasting process can be performed based on sufficient operational experience and an amendment with further harmonisation can be proposed. In addition, TSOs are of the opinion that the upside of social welfare should be analysed before recommending any improvements. Market data from the Nordics aFRR capacity market can be used for analysis, together with practical operational experience from other regions (which is yet to be gained).

Q1.2.9 Please provide your comments concerning forecast error or forecast error consideration for the market-based allocation process.

All TSOs see the need to improve the forecast error definition and calculation in the methodology. All TSOs state that the definition and calculation of forecast error should reflect the economic effect, be general and neutral, be directional, and be as understandable/least complex as possible. All TSOs state that while it is appropriate to define a harmonised definition and calculation of forecast error in the methodology, the consideration of this forecast error (i.e., limiting the maximum cross-zonal capacity for the balancing capacity exchange after forecast error calculation), however, must not be harmonised. This is because the markets and corresponding market spreads may be different in different regions which implies that the value of cross-zonal capacity in different regions may differ too. Additionally, even within regions, market spreads may change over time. Therefore, it is impossible to establish an efficient and static relationship between forecast error and forecast error consideration. Consequently, this relationship can only be dynamic and thus must be monitored and adjusted in the regional applications of the harmonised market-based allocation.

With regard to the forecast error considerations, All TSOs would like to emphasise the need to protect the functioning of the day-ahead market.

Other comments concerning the HCZCAM Proposal

Q1.3 Please provide any other comments related to specific provisions of the HCZCAM Proposal. Please always indicate the relevant Article in the Proposal which your comment refers to.

All TSOs would like to thank ACER for the possibility to provide comments on the HCZCAM Proposal. All TSOs would also like to take the opportunity to emphasise the importance of having a market-based (MB) allocation process in the HCZCAM Proposal. The MB allocation process is currently applied in the Nordic CCR and is planned to be applied also in the Core CCR, Baltic CCR and GRIT. Therefore, All TSOs would like to preserve the market-based process in the HCZCAM as it helps TSOs to reduce their overall procurement costs via cross-border sharing/exchange of reserves in D-1 morning before the SDAC is run. This is vitally important from the operational planning perspective as the MB allocation process enables TSOs to better maintain their operational security. Further, the process helps the balancing service providers (BSPs) to optimise their bidding portfolio for the following energy markets. Limiting TSOs from not using D-1 cross-border procurement via the market-based allocation puts great uncertainty on both the BSPs and TSOs. In addition, TSOs have already incurred costs associated with the amendment of respective regional processes which take the value of allocated cross-zonal capacity from the MB allocation process into account. These incurred costs could be lost in case the MB allocation process is not allowed in the HCZCA.

All TSOs see that the responsibility for developing the CZCAOF blueprint should remain with All application TSOs. Moreover, all TSOs see that the operation of the CZCAOF should remain with the application TSOs of each balancing capacity platform. The RCCs should only facilitate the procurement of balancing capacity, but not fully manage the procurement. When it comes to the HCZCAM, the RCCs should validate the forecast and determine the
forecast error. In addition, RCCs may provide non-binding recommendations for improvement of the forecast process. The legal requirement on RCC tasks does not go beyond facilitation/support of the procurement of balancing capacity. From the TSOs’ point of view this legally requested facilitation/support is separate from operating key functions of the cross-border procurement of balancing capacity. Therefore, all TSOs emphasise that their initial proposal to allocate tasks related to forecasting necessary for market-based CZCA sufficiently meets this legally required RCC facilitation/support.

On behalf of All TSOs, we hope that our feedback will help in ACER’s decision-making process.

**Topic 2: RCC task of regional sizing (Sizing Proposal)**

The Sizing Proposal is structured into two sub-tasks, which in combination should fulfil the requirements for the RCCs’ task of regional sizing of reserve capacity pursuant to point 7 of Annex I of the Electricity Regulation. These sub-tasks are:

- the determination of minimum reserve capacity at SOR level; and
- the short-term assessment of availability of sharing amounts.

Pursuant to Article 4 of the Sizing Proposal, the RCC should determine required minimum reserve capacity at SOR level considering reserve requirements and possibilities for sharing of reserves on a yearly basis. If the amount calculated by the RCC on a SOR level is deviating beyond the defined thresholds from the amount of the summed up required minimum reserve capacity of all relevant load frequency control (LFC) blocks, the RCC needs to issue recommendations to TSOs for re-considering the sharing of reserves within the SOR.

Pursuant to Article 5 of the Sizing Proposal, for cases where the sharing agreement between LFC blocks are applied, the RCC shall on a day-ahead basis assess whether sufficient reserve capacities and sufficient cross-zonal capacities are available and consequently notify TSOs about risks of insufficient availabilities or possibilities to increase the sharing amount.

**Q2.1** Please provide your comments related to the determination of minimum reserve capacity at SOR level. 
*Please always indicate the relevant Article in the Proposal which your comment refers to.*

**Q2.2** Please provide your comments related to the short-term assessment of availability of sharing amounts. 
*Please always indicate the relevant Article in the Proposal which your comment refers to.*
ENTSO-E thanks ACER for the opportunity to comment during the consultation process. ENTSO-E and the TSOs continue to support the submitted RCC Sizing proposal and are convinced that it complies with the legal requirements. Therefore, ENTSO-E sees no need to comment specifically on the consultation on the RCC Sizing proposal.

Topic 3: RCC task of facilitating the procurement of electricity balancing capacity (‘Procurement Proposal’)

The Procurement Proposal covers two main topics regarding the RCCs’ task of facilitating the procurement of electricity balancing capacity, which are:

- the assessment of non-contracted platform bids; and
- the RCCs’ involvement in the regional procurement of balancing capacity.

The daily assessment of non-contracted bids on balancing energy platforms aims to allow TSOs to reduce their volume of required reserve capacity, in accordance with point 8.1 of Annex I of the Electricity Regulation.

Regarding the RCCs’ support for the TSOs’ procurement of the required amount of balancing capacity in accordance with point 8.2 of Annex I of the Electricity Regulation, the Procurement Proposal requires the RCCs to provide the relevant cross-zonal capacity data to the harmonised processes for the allocation of cross-zonal capacity for the exchange of balancing capacity or sharing or reserves and to perform the processes allocated to the RCCs by the HCZCAM Proposal. The HCZCAM Proposal requires the RCCs to perform the task of forecast validation in the harmonised market-based allocation process. Pursuant to Article 17(5) of the HCZCAM Proposal, this task includes recommendations for improving the forecasting of SDAC bid curves, which is performed by a forecasting entity, and to determine the forecast error by running the market-based cross-zonal capacity optimisation function, which needs to be provided to the RCC by the relevant balancing capacity platform entity.

Q3.1 Please provide your comments related to the assessment of non-contracted platform bids.

Please always indicate the relevant Article in the Proposal which your comment refers to.
Q3.2 Please provide your comments related to role foreseen for RCCs by the Procurement Proposal and the HCZCAM Proposal to support the procurement of balancing capacity.

Please always indicate the relevant Article in the Proposal which your comment refers to.

Q3.3 Please provide any other comments related to specific provisions of the Procurement Proposal.

Please always indicate the relevant Article in the Proposal which your comment refers to.

ENTSO-E thanks ACER for the opportunity to comment during the consultation process. ENTSO-E and the TSOs continue to support the submitted RCC Procurement Proposal and are convinced that it complies with the legal requirements. Therefore, ENTSO-E sees no need to comment specifically on the consultation on the RCC Procurement Proposal. With regard to any further RCC involvement in the HCZCA process, please see the ENTSO-E consultation response on All TSOs HCZCA proposal under Q1.3.

Other comments

Q4 Do you have any other relevant comments?

On behalf of All TSOs and ENTSO-E, we hope that our feedback will help in ACER’s decision-making process.

Confidential information

• Does your submission contain confidential information?
  ○ Yes
  ○ No

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