

ENTSO-E's consultation on the Co-optimization proposal (Article 40), under EB GL

A Eurelectric response paper

Eurelectric represents the interests of the electricity industry in Europe. Our work covers all major issues affecting our sector. Our members represent the electricity industry in over 30 European countries.

We cover the entire industry from electricity generation and markets to distribution networks and customer issues. We also have affiliates active on several other continents and business associates from a wide variety of sectors with a direct interest in the electricity industry.

We stand for

The vision of the European power sector is to enable and sustain:

- A vibrant competitive European economy, reliably powered by clean, carbon-neutral energy
- A smart, energy efficient and truly sustainable society for all citizens of Europe

We are committed to lead a cost-effective energy transition by:

investing in clean power generation and transition-enabling solutions, to reduce emissions and actively pursue efforts to become carbon-neutral well before mid-century, taking into account different starting points and commercial availability of key transition technologies;

transforming the energy system to make it more responsive, resilient and efficient. This includes increased use of renewable energy, digitalisation, demand side response and reinforcement of grids so they can function as platforms and enablers for customers, cities and communities;

accelerating the energy transition in other economic sectors by offering competitive electricity as a transformation tool for transport, heating and industry;

embedding sustainability in all parts of our value chain and take measures to support the transformation of existing assets towards a zero carbon society;

innovating to discover the cutting-edge business models and develop the breakthrough technologies that are indispensable to allow our industry to lead this transition.

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Eurelectric welcomes the consultation on the co-optimisation of CZ capacity allocation for the exchange of balancing capacity or sharing of reserves.

Eurelectric acknowledges the necessity for TSOs to propose this methodology as prescribed in the EBGL. If TSOs decide to set up a Balancing Capacity Cooperation, Eurelectric would like to remind that the allocation of CZC for the exchange of balancing capacity or sharing of reserve should be the outcome of a market process. This implies that the market values of different products being traded and arbitrated should be exclusively determined by the market itself and not by an estimation of TSOs.

In that sense, the present proposal on co-optimization goes in the good direction. Nevertheless, Eurelectric identified some points that need further development as well as some prerequisites that are currently not met.

In any case, Eurelectric clearly opposes any rushed implementation. Eurelectric also invites TSO to be more transparent on the process that would be followed should a Balancing Capacity Cooperation be set up.

Eurelectric divides its answer into two distinct parts. The first one covers the prerequisites that absolutely would have to be met in order to consider the co-optimisation process as a feasible concept and acceptable from BSPs and BRPs point of view, and that are not met in the proposal as it stands now. The second part covers the proposal itself.

Prerequisites related to the implementation of a co-optimisation allocation process

In general, Eurelectric believes that the proposed concept is far away from serving as a basis for any decisions for implementation. Besides other aspects, none of the key prerequisites that are listed here below are met and each of them is a blocking point itself towards any implementation of the co-optimization process.

1. There is an absolute need for the possibility of **linking bids on both energy and balancing capacity markets** in order to limit inefficiencies linked to the concomitance of both markets. The existence of separate, parallel markets forces market participants to choose between bidding for the energy or bidding for the balancing capacity. This leads to high inefficiencies given the fact that the same asset can be active in both markets. In that case, one of the main added values of co-optimisation, which is to avoid the need for market

participants to anticipate the energy price when pricing their capacity bids (with unavoidable uncertainties and associated risk premiums), is lost. It would then be equivalent to a co-clearing rather than a co-optimization which is definitely not the idea behind the co-optimization.

Even if the possibility to link bids in both markets will become reality, the change in the bidding process of Market Participants should not be underestimated. **This will require time to adapt and profound alignment with TSOs in order to design it.**

For the co-optimisation process, there is no maximum value for the CZC that can be allocated for balancing capacity contrary to the market-based process (10% of the CZC) or the economic efficiency process (5% of the CZC). The existence of those maximum values for the CZC allocated to balancing capacity is linked to the (potentially bad) estimation of the energy bids, the balancing capacity bids or both in the case of economic efficiency. On the contrary, the absence of maximum value for the co-optimisation process implies implicitly that the process should be developed in the optimized way enabling to reach efficiency. Having no possibilities to link energy and balancing capacity bids clearly deviates from that principle.

Moreover, Eurelectric reminds that the exchange of balancing reserves or the sharing of reserves can only be set up if a scheme for Standard Balancing Product is in place. We therefore refer to our answer to ENTSOE's consultation on article 25 of the EBGL.

2. Eurelectric notes that the SDAC algorithm is already at its limit in terms of capability. The reduction of the Market Time Unit will certainly further limit the performance of the algorithm. **Eurelectric has large concerns on the impact of the co-optimization on the SDAC.** Therefore, Eurelectric invites the TSOs, together with the NEMOs if not already done, to duly analyze the impact of the co-optimisation process on the performance of the SDAC before any implementation decision is made. Certainly; market participants need to be involved/informed in this process, too.

Moreover, Eurelectric is clearly **against any limitations such as the reduction in the variety of the energy products and bidding flexibility offered for the SDAC to accommodate the algorithmic complexity of co-optimisation**; furthermore we also clearly do reject any negative impact on the further evolution of new products and services for the SDAC. Eurelectric is also clearly against any prolongation of time needed for calculation or results publication.

3. The description of the co-optimisation process implicitly assumes that the energy allocation in the SDAC is ATC-based. However, some CCRs use FB (or should use it in the future), and there is in our view an incompatibility between these two options. Indeed, in FB, network constraints are related to firm energy net positions (taking into account that certain allocated energy flows can relieve a constraint and allow other flows to be accepted). However, since there is no certainty about the activation of the procured balancing capacities, their impact on energy net positions is unknown. Given that Article 33(7) of EBGL forbids that reliability margins are increased to accommodate the uncertainty linked to the activation or non-activation of the contracted reserves (FRR or RR), Eurelectric does not see how the **co-optimization process could be applied with a FB capacity calculation without endangering the grid**. Eurelectric invites the TSOs to find a

way to design a FB-proof co-optimization process; if not possible, this would be major obstacle to the implementation of co-optimisation.

Answers related to the content of the methodology

Articles 1 and 2 ‘Subject matter and scope’ and ‘Definitions and interpretation’

- In the article 1.7, there is a reference to an exclusive usage of the CZC for the product it was reserved for. But afterwards, in article 3.10, it is mentioned that "it shall be released for the exchange of balancing energy with shorter activation time". Please clarify the sentence to make it line with the article 3.10.
- The article 2.2 proposes new definitions of well-known and already defined concepts (notably under the CACM) and apply them to this specific methodology. E.g "Allocation of cross zonal capacity" is not limited to the CZC allocated for the exchange of balancing capacity or sharing of reserves. This remark is a.o. also valid for the definition of "Use of cross zonal capacity" and "Release of cross zonal capacity. Eurelectric asks to be consistent with the already existing definitions and to not tweak them in order to fit with this specific methodology.
- In the article 2.2g, is the "duration of application" synonymous of the "contracting period" used in the explanatory note of the SPBC methodology? If yes, please use a common wording.

Article 3 ‘Principles of balancing capacity cooperation’

- Under article 3.5, more explanation would be welcome on how to combine a co-optimisation with the derogation to procure upward and downward jointly and without a derogation (treating them separately)? We see implementation challenges.
- Under article 3.6, the first part of the sentence about the definition of TSO-BSP pricing rules is also applicable for self-dispatch systems and is therefore redundant with the article 3.9.
- In the article 3.7, clarification would be welcome on how to combine SDAC for 24h with a minimum contracting of balancing capacity bids period smaller than 24h. Following our understanding, the contracting period must be identical for the SDAC and for the capacity procurement, i.e. 24h.

Article 4 ‘Notification process for the use of the co-optimised allocation process’

- In the article 4, each balancing capacity cooperation implementing the CO CZCA should not only "Inform all TSOs" but in a more general way should "Inform all stakeholders".
- Article 4 lists the specifications of the balancing cooperation that should be part of the notification process; the type of balancing capacity product (aFRR, mFRR or RR) to be shared/exchanged should also make part of this list.

Article 5 'Timeframe of co-optimised allocation process'

- In the article 5.1.b, why is a delay of maximum one hour needed for the notification of selected upward/downward balancing capacity bids to market participants? This does not seem necessary. We don't understand why the results of the DA market and the selected Balancing capacity bids cannot be published at the same time.
- In the article 5.2.c, it is not clear which conversion of the Balancing Capacity bids is required.
- Concerning the article 5.2 d:
 - The wording is not clear between supply/demand order books and TSO demand (up and down). Please clarify the wording.
 - If there are minimum local reserve requirements and/or additional thresholds per product and per direction, Eurelectric thinks they should be harmonized at the level of the balancing capacity cooperation to ensure a level playing field as it could induce competition distortion across bidding zones.
- We understand from the articles 5.2.g to 5.2.j that the MCO only gives as output of the co-optimized SDAC, the CZCs allocated for balancing capacity exchange, and that these CZCs are used as input by TSOs to calculate the accepted balancing capacity bids in each zone. However, to obtain the CZCs allocated for balancing capacity exchange, the MCO has to solve the whole optimisation problem, so he is already able to give the accepted capacity bids in each zone. Therefore, Eurelectric fails to understand the interest of the additional step performed by TSOs. Governance issues between the MCO and TSOs should not lead to extra unnecessary steps in a process that is already very challenging in terms of timings and complexity. Besides, Eurelectric underlines that this additional step, where capacity is allocated by TSOs independently from energy, is clearly incompatible with the possibility to link energy and capacity bids, which is of utmost importance for Eurelectric, as emphasized above.
- Concerning the article 5.2.i:
 - The co-optimization will allocate CZC for energy bids and balancing capacity bids, what kind of validation is needed from the TSOs? If needed, it is important to ensure transparency in this process and to list the reasons for a negative validation.
 - Currently, only a positive or a negative validation is foreseen. The possibility of partial validation is not mentioned. Can you justify why? EURELECTRIC sees advantages of having partial validation in order not to lose all the advantages of the balancing capacity cooperation for a negative validation caused by a marginal issue at TSO side.
 - In case of negative validation, a re-run of the SDAC should be performed so that the CZC reserved for BC (and finally not used by TSOs for the BC allocation due to the negative validation) can be used for energy bids. How to manage that in terms of timing and potential delay? Will the co-optimization be canceled that day? Then back up procedures should be described. More details would be welcome.
- In the article 5.2.f, "5.2.d" should be replaced by "5.2.c"

Article 6 ‘Process to define the maximum volume of allocated cross zonal capacity for the exchange of balancing capacity or sharing of reserves’

- In the article 6.3, Eurelectric does not understand the need for additional limits for the maximum allocated CZC for the exchange of balancing capacity or the sharing of reserves that might be imposed by the TSOs and NRAs. Please provide a rationale for that.
- Should additional limits be imposed by TSOs and NRAs, then Eurelectric asks that those are well defined, disclosed and justified in order to provide full transparency on the process.
- Moreover, there is an overlap between the article 9.7 and article 6.3. Could you please clarify the difference, if there is any.

Article 7 ‘Determination of the actual market value of cross zonal capacity for the exchange of energy’

- In the article 7.1a: given the definition of the market value of CZC, brackets should be deleted.

Article 8 ‘Determination of the actual market value of cross zonal capacity for the exchange of balancing capacity or sharing of reserves’

- Concerning the article 8.3, it is not clear why a TSO cannot ask for more capacity than the one submitted locally. Is that for avoiding the risk of "free riding" of some TSOs? Eurelectric considers that exchange of balancing capacity is precisely a means of fulfilling the demand of a TSO even if there is not enough offer in its zone; besides, applying such a provision would lead to a situation where the TSO with insufficient offer in its zone would not cover its reserve requirement as dimensioned pursuant to SOGL. Therefore, arbitrarily reducing the TSO's demand should not be considered as an option. If this is because the computation would not be possible because of an infinite surplus in the zone with insufficient offer, could you then clarify that?
- The article 8.1.e is not in line with the article 3.8 where it is defined that the minimum validity period is equal or a multiple of the DA MTU. Please correct this article.

Article 9 ‘Determination of the allocated volume of cross zonal capacity for the exchange of balancing capacity or sharing of reserves’

- Could you please clarify the meaning of “business day”.
- Under the article 9.7, Eurelectric does not understand the need for additional thresholds and/or margins to reduce CZC allocation for the exchange of balancing capacity or the sharing of reserves that might be applied by the TSOs and NRAs. Please provide a rationale for that.
- Moreover, there is an overlap between the article 9.7 and article 6.3. Could you please clarify the difference, if there is any.

- If the TSOs and NRAs can apply additional thresholds or margins to reduce CZC allocation for the exchange of balancing capacity or the sharing of reserves as stated under the article 9.7, the rules should be known in advance and made transparent to the market participants.

Article 10 'Firmness regime of cross zonal capacity'

- Under the article 10.2, it would be welcome to know the time schedules for the process of releasing unused CZC for the exchange of balancing energy with shorter activation times in order to ensure feasibility.
- Under the article 10.3, what do the "transmission constraints" (referring to article 9 where the term "transmission constraints" is not present) refer to?
- Concerning the article 10.4:
 - Could TSOs clarify that the balancing capacity contracted cross-border is not subject to curtailment even if the CZC is curtailed, and that the compensation referred to in Article 10.4 is therefore only an inter-TSO compensation (related to the additional costs from the procurement of replacement balancing capacity)?
 - Eurelectric considers that, in case of CZC curtailment, BSPs should also be compensated (without compensation cap) for the loss of opportunity of being activated and remunerated for the associated energy (since this opportunity should have been priced in the capacity bids, lowering their cost for the contracting TSO): this happens in case the contracting TSO activates the energy bid of a local BSP rather than the one a foreign BSP ranking better in the merit order, because of the CZC curtailment.
- The article 10.5 is not directly related to firmness issue.

Article 11 'Pricing of cross zonal capacity'

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Article 12 'Sharing of congestion income from cross zonal capacity'

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Article 13 'Publication'

- It is unclear why would TSOs publish information on allocated cross-zonal capacity for exchange of balancing energy / sharing of reserves only 6 hours before its use. For the sake of transparency, this information should be published together with market results.
- EBGL states in the article 12.3.i that information on the use of allocated cross-zonal capacity should be published at latest one week after its use. This does not prevent TSOs from earlier publishing of these information. CO CZCA should clearly state when the information will be published, we prefer the earliest publication time possible.
- Under the article 13.5, which "approved methodologies" are referred to?

Article 14 'Language'

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Any Other points

- It should be clear that the CZC on a BZB that has not been allocated to energy bids in DA (which results in a price coupling on that BZB) nor to balancing capacity (because the TSOs' needs are fulfilled), has to be released in the ID market.
- How is Art. 38(7) of EBGL handled? In Eurelectric's opinion, all non-nominated PTRs should be taken into account in the XB capacity available for co-optimisation (for energy and capacity exchange).
- Has the proposed co-optimisation process been designed only for a TSO-TSO model? Would it be compatible also with a TSO-BSP model, as allowed by Art. 35 of EBGL?
- What is the difference between the Minimum Validity Period and the Validity Period. Can you clarify who defines them (cf. figure 1 in the Explanatory Note). Can multiple Validity Period be linked to each other?
- Eurelectric would welcome numerical/graphical examples to be included in the explanatory note as it was done for other EBGL methodologies.
- There is few information on the characteristic of the TSO demand. How will it look like? Can the TSO demand be elastic, would it be based on volume only or on volume and price together? This has an impact in the determination of the consumer surplus.
- It would be indicated to change the terms "producer" and "consumer" by "seller" and "buyer", respectively. As a BSP is not necessarily a producer and a TSO does not consume balancing capacity.
- The current proposal lacks clarity on the starting point for the optimization function which would be very welcome. It has been explained in the workshop that the starting point is 100% of the CZC allocated for the exchange of energy bids. Then if the change in global social welfare is positive by withdrawing 1MW for the exchange of energy and allocating it to the balancing capacity, then this transfer of CZC would be confirmed. And this action is repeated until the relative change is zero or negative.

Eurelectric pursues in all its activities the application of the following sustainable development values:

Economic Development

- Growth, added-value, efficiency

Environmental Leadership

- Commitment, innovation, pro-activeness

Social Responsibility

- Transparency, ethics, accountability



Union of the Electricity Industry - Eurelectric aisbl
Boulevard de l'Impératrice, 66 – bte 2 - 1000 Brussels, Belgium
Tel: + 32 2 515 10 00 - VAT: BE 0462 679 112 • www.eurelectric.org
EU Transparency Register number: [4271427696-87](https://ec.europa.eu/transparency/regexpert/?s=details&id=4271427696-87)