

CONSULTATION REPORT

# Elia's methodology to determine the required balancing capacity

October 21, 2022



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# 1. Introduction

The LFC Means specifies in line with Article 213 of the Code of Conduct<sup>1</sup> (formerly Article 228 of the Belgian Federal Grid Code) the methodology to determine for each balancing service the balancing capacity of aFRR and mFRR to be procured. This proposal introduces a process which temporarily limits the contribution of reserve sharing in covering the upward mFRR reserve capacity needs during periods with tight market conditions in countries with which Elia has concluded a reserve sharing agreement. During such periods, upward mFRR balancing capacity requirements will therefore be increased with 250 MW.

- Note that the methodology to dimension the required reserve capacity is determined in the LFC block operational agreement which specifies the dimensioning rules for Frequency Restoration Reserves or 'FRR' in execution of Article 157 of the System Operation Guidelines.
- Note that only the "Project for amendment on Elia's LFC Means" is subject to consultation. The "Explanatory note on Elia's LFC Means", as well as "Elia's LFC Means with track changes" compared to the previous version, were published for information.

This consultation aimed to receive any comments from market participants and relevant stakeholders regarding the consulted document and the consultation period was set from **Tuesday, September 20 to Tuesday, October 11, 2022**. In total, Elia received two answers, which are both completely non-confidential:

- FEBELIEC
- FEBEG.

All relevant information to this consultation can be found on Elia's webpage ([link](#)). The feedback received during the consultation did not result in modifications of Elia's proposal. The request for amendment is submitted for approval to CREG on October 21, 2022.

## 2. Answers to the feedback of FEBELIEC

*Febeliec would like to thank Elia for this consultation on the methodology to determine the required balancing capacity. Febeliec wants to refer explicitly also to all comments it made during the discussions on this topic. Febeliec opposes the removal of 250MW of inter-TSO balancing capacity from the balancing means, as it artificially creates a large gap (about one quarter) in the required balancing capacity needs, while the different inter-TSO contracts cover a multiple of the 250MW that was taken into account by Elia. By removing this capacity, Elia estimates that in Belgium the dimensioning incident for the balancing capacity occurs simultaneously with the dimensioning incident for the determination of the required capacity reservation occurs in all neighbouring countries with whom it has such an agreement, which seems quite unlikely. Febeliec therefore sees insufficient convincing arguments to apply this removal.*

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<sup>1</sup> CREG Decision (B)2409 of 20/10/2022

Elia reminds that the capacities related to the reserve sharing agreements it concluded with neighbouring countries are not guaranteed. Elia reminds that:

- the capacities can be declared unavailable at any time by the service-delivering TSOs, e.g. following the (expected) activation of these reserves by the service-delivering TSO for local reasons;
- the capacities can be unavailable because of transmission constraints. Indeed, their availability to cover LFC block imbalances in the Elia LFC block depends on remaining transmission capacity after the intra-day time frame.

The current contribution of 250 MW in the FRR dimensioning was determined in the LFC Means based on a statistical analysis of historic observations of available transmission capacity after the intra-day time frame<sup>2</sup>. This calculation used a reliability level of only 99%. Elia remarks that it is required to cover reserve capacity needs following the SO Regulation. Therefore, Elia disagrees with FEBELIEC that sufficient margins exist to compensate the loss of capacities on one or more borders through the availability of sharing agreements on four borders. Elia wants to stress that the regional nature of the considered event, i.e. an adequacy issue in one of the neighboring countries, increases the probability that the capacities on more than one border will be simultaneously declared unavailable.

Elia reminds that it is required, in view of as well as system security as legal requirements specified in Article 157 of the SO Regulation, to ensure the availability of sufficient reserve capacity to cover at least the loss of the largest power plant or the loss of the Nemo Link interconnector. Without the 'firm' contribution of the capacities facilitated through sharing, these conditions are not fulfilled anymore. **This poses a threat to the system as Elia cannot guarantee to be able to cover the loss of such large power plant or HVDC-cable during these periods of shortages in neighboring countries.** Indeed, the likelihood to find additional non-contracted balancing energy bids during such tight market conditions is expected to be low.

*Moreover, by contracting an additional 250MW in Belgium, the day-ahead (and intraday) markets will see a volume reduction in their merit order of the same size; this will exacerbate the problem of an already very tight system, with the related potentially very high price (and thus cost) impact via a depleted merit order which would impact all parties active on the market as well as all those with contracts indexed on the market reference. Febeliec urges thus for the utmost caution with this approach and, taking into account the first comment, advises negatively on this evolution.*

*Febeliec nevertheless welcomes the efforts by Elia to reduce the abovementioned impact as much as possible, by limiting the circumstances under which such additional capacity would be procured, but it is exactly at moments of "Critical Grid Situations" that the impact on the merit order and the energy markets would also be the highest (and in the worst case scenario could even lead to insufficient capacity in those markets and thus eventually curtailment of customers for reservation of balancing capacity that might not be needed at all if the dimensioning incident does not occur).*

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<sup>2</sup> <https://www.elia.be/en/public-consultation/20201008-public-consultation-on-a-modification-of-the-methodology>

Elia confirms that the proposed measure would result in a shorter merit-order in the day-ahead market, which may lead to higher clearing prices on this market. Nevertheless, Elia considers that this measure is entirely justified by the requirement for Elia to cover its reserve needs and manage system security in line with SO Regulation.

*Febeliec also wonders whether no intermediate approaches, with smaller volumes, could be identified, in order to limit, if it were to be implemented, the aforementioned impacts.*

Elia investigated this possibility but concluded that it is not operationally feasible. Elia clarifies that it cannot be expected that during such events of tight market conditions, Elia can gather the required information of other TSOs in a reliable way (certainly those facing shortages), analyze this information and calculate the exact sharing contribution that can be taken into account in the dimensioning. In addition, Elia expects that the potential would be very limited due to the reasons mentioned above.

*Febeliec also welcomes the additional channels through which Elia will communicate the contracting of an additional volume of 250MW and insists that all possible channels be used in order to ensure that all parties with relevant flexibility can still bring this to the market to avoid or at least mitigate the adverse effects as much as possible.*

Elia refers to the communication process specified in the consulted Article 4(7)a of the LFC Means.

*“As from D-3, and until the publication of the positive balancing capacity to be procured following Article 6(5),*

- (a) Elia will inform the market (via its inside information platform, Elia Group IIP) about the reduction of the contribution of the positive sharing capacity to 0 MW as soon as reasonably possible after receiving the critical grid situation.*
- (b) Elia can update the information to reduce the contribution of the positive sharing capacity to 0 MW.*

Elia will thus communicate as soon as possible to the market via its inside information platform, Elia Group IIP. In addition, BSPs will be contacted bilaterally by Elia in view of the delivery of additional volumes. Elia will also present the communication plan during the working group balancing of October 27, 2022 and invites market parties to react during the working group balancing or contact Elia if there are elements to be further clarified, or specific suggestions for the communication.

### 3. Answers to the feedback of FEBEG

*FEPEG acknowledges the exceptional nature of upcoming winter. In this situation, we understand – and can support - the need to implement a quick fix and amendment of the LFC Means. However, we consider this quick fix as an incomplete and temporary solution. We are still convinced that FRR procurement should be dynamic, robust over time and safeguard the grid security at any time.*

*The world of energy is in constant evolution and is impacted by countless factors such as geopolitics, fuel prices, regulatory adaptations, shift in the energy mix, unavailability in the generation fleet, etc. For these reasons, FEPEG believes that assumptions made on the dimensioning of reserves, including TSO sharing agreements and their respective availability should not be taken lightly, indeed it is risky to be too dependent from neighboring countries and sufficient safety margins should be taken into account. While it is true that the coming winter is expected to be a challenging one, reviewing the assumptions to correctly dimension FRR needs should not be restricted to this winter only. Critical situations can also happen beyond the winter period. It is always possible to face at the same time high consumption,*

*extreme intermittency on renewables, low generation availability, etc while surrounding countries would be simultaneously be exposed to same events. Relying on TSO sharings should be done only when those sharings are available in reality. By nature, this cannot be a static exercise.*

Elia reminds that it takes into account the availability of energy and transmission capacity in the calculation of the contribution of reserve sharing dimensioning. It refers to the answers given to the remarks of FEBELIEC and stresses that it implements a relatively high reliability level to avoid over-dimensioning the availability of reserve sharing.

Nevertheless, Elia agrees that a static determination of the reserve sharing has its limits. The occurrence of large-scale cross-border events are indeed a concern and is being discussed with TSOs on a regional level in the framework of the proposals being drafted on new roles and responsibilities of the Regional Coordination Centers in line with the Clean Energy Package. According to Elia, the proposed measure in the LFC Means based on a reduction of the sharing contribution following regional adequacy problems is already a good example of how regional issues should be considered in the calculation of reserve sharing contributions.

*FEPEG wishes to again emphasize on the long-term visibility needed to enable the market to be adequate when it comes to means and needs. Implementing a solution only valid for this winter will not provide enough certainty nor give an appropriate investment signal. One can notice that FRR procurement (LFC BOA) has decreased in the recent past – which seems counter-intuitive with the increase of intermittent generation – and that some flexibility has left the market as a result of this. It is a fear that FEPEG expressed multiple times in its position paper and we can only notice that it became a reality. Such an evolution is very unfortunate and FEPEG believes that a stable and regulatory framework is a prerequisite to mitigate that risk. We like to remind ELIA specifically on the clear concerns put forward by FEPEG (and other market parties) regarding the reduction of the volume for aFRR with 28 MW. The reduction to 117 MW has given a negative signal towards the market and increased the already high level of regulatory uncertainty.*

Elia recognizes the importance of regulatory stability and long-term visibility on evolutions. It refers to its efforts on creating long-term visibility by creating reserve projections (cf. MOG 2 studies). It takes note of this remark and refers to the answers given in the framework of the consultation of the proposal to reduce the aFRR needs from 145 MW to 117 MW in the LFC block operational agreement<sup>3</sup>.

*Finally, FEPEG wants to call ELIA's attention on the publication of the Critical Grid Situation indicator. Upcoming winter will undoubtedly raise operational challenges with huge financial exposures. In this context, it is of utmost importance that ELIA publishes transparently the Critical Grid Situation indicator on its website at the very least 3 days in advance. We remind that this will be a new process to be handled by operational teams and each shifter will need to be trained. Anticipation will be key to make it happen.*

Elia refers to the answer given to FEBELIEC and to the communication process described in Article 7(4)a of the LFC Means. Elia will communicate via its transparency platform (Elia Group IIP). In addition, BSPs will be contacted bilaterally by Elia in view of the delivery of additional volumes. Elia will also present the communication plan during the

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<sup>3</sup> [https://www.elia.be/en/public-consultation/20220516\\_public-consultation-on-a-proposal-for-amendment-to-elia-s-lfc-block-operational-agreement](https://www.elia.be/en/public-consultation/20220516_public-consultation-on-a-proposal-for-amendment-to-elia-s-lfc-block-operational-agreement)

working group balancing of October 27, 2022. Elia invites market parties to react during the working group or contact Elia if there are elements to be further clarified, or specific suggestions for the communication.

As specified, a Critical Grid Situation (resulting in the reduction of the reserve sharing contribution) is communicated by the RCC and can therefore not be communicated earlier by Elia. Elia commits to communicate the trigger as soon as possible after receiving the information from the RCC in order to facilitate the offer by BSPs of the requested balancing capacity. Nevertheless, it remains possible that a Critical Grid Situation is discovered and communicated by the RCC until real-time and Elia will, after communicating as soon as possible to the stakeholders, take these potential revisions into account until 7 AM D-1, i.e. the moment when Elia publishes its reserve capacity needs and balancing capacity requirements on its website.

*FEPEG acknowledges and can support the need to implement the Critical Grid Situation indicator in the LFC means as a quick-fix. However, we also like to look further and not only focus on a short term quick-fix to tackle issues on FRR procurement for the coming 5 months. We consider even more important to improve the FRR procurement methodology on the longer term. The dynamic FRR procurement, as proposed by ELIA in previous and ongoing consultations, appears to be a more appropriate tool and a more robust methodology providing longer term visibility to market participants. The Critical Grid Situation indicator should consequently be a permanent criteria integrated within this robust methodology to define dynamically the FRR procurement. And this for the simple reason that relying on TSO sharings should be done only when those sharings are available in reality. By nature, this cannot be a static exercise.*

Elia takes note of this remark and refers to the answers given above. It also refers to the discussions on reserve sharing in the public consultation on Elia's study on 'dynamic procurement strategies'<sup>4</sup>. Elia agrees that a dynamic contribution of reserve sharing should be considered in light of the discussions on dynamic procurement strategies, and need to incorporate, to the extent possible and desirable, regional constraints including exceptional regional events such as the regional adequacy issues presented in this modification of the LFC Means.



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<sup>4</sup> [https://www.elia.be/en/public-consultation/20220914\\_study-on-procurement-strategies-for-a-dynamic-calculation-of-frr-means](https://www.elia.be/en/public-consultation/20220914_study-on-procurement-strategies-for-a-dynamic-calculation-of-frr-means)