

Second amendment of Implementation framework for the European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation

in accordance with Article 21 of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

31 January 2024

Purpose:	☐ methodology draft ☒ for ACER approval	☐ for public consultation ☐ for final publication
Status:	☐ draft	☒ final
TSO approval:	☐ for approval	☒ approved
NRA approval:	☐ outstanding	☐ approved

All TSOs, taking into account the following:

Whereas

- (1) This document provides an amendment to the Implementation framework for a European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation in accordance with Article 21(1) of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing ("EB Regulation") following the ACER decision No. 02/2020 of 24 January 2020 on the Implementation framework for the European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation amended by the ACER decision No. 15/2022 of 30 September 2022 on the amendment to the Implementation framework for a European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation (hereafter referred to as the "aFRR IF").
- (2) European TSOs strongly support the European target model defined by the EB Regulation for integrated balancing energy markets, especially the implementation of the European platforms for the exchange of balancing energy and see significant advantages resulting from it.
- (3) Elastic aFRR demand in the context of this proposal is only applicable if a TSO requests the application of this measure and gets it approved by the relevant NRA. Therefore, the application of elastic aFRR demand represents a possibility and is not mandatory to All TSOs.
- (4) To guarantee a satisfactory system frequency quality, there is no need as such to access additional FRR energy in other LFC areas, at least in normal state. This is acknowledged by the Article 29(12) of EB Regulation that foresees, by default, that the total volume of balancing energy bids that can be activated by a TSO corresponds to the volume of bids submitted by this TSO to the platforms (corrected by sharing of reserves or exchange of balancing capacity). The European platforms are primarily a tool to optimise the activation of bids according to a common merit order list (CMOL) and to dispatch cheaper balancing energy bids first, not to access more bids.
- (5) When drafting the implementation frameworks for aFRR and mFRR, All TSOs requested to use the possibility offered by Article 29(13) of EB Regulation to allow each TSO to access all bids in the CMOL, subject to sufficient CZC available on the borders. Such a full access to CMOL has several advantages, such as the maximisation of netting opportunities and the possibility for TSOs to access additional FRR liquidity and improve thereby their FRCE and frequency quality, but nothing in the legislation imposes that TSOs would keep improving at any cost their FRCE above the agreed threshold. This is however what happens with the current design of the aFRR balancing energy platform, where all aFRR demand will be satisfied "at any price" regardless of its volume and of the obligations of the TSO resulting from the reserve dimensioning. This design may lead to the activation of extremely expensive bids, also in situations where such activation is not needed to ensure an acceptable frequency quality, resulting (directly or indirectly) in unnecessarily high costs for the consumer. It is to avoid this situation in the future that All TSOs propose to introduce the concept of voluntary (price) elastic aFRR demand.

- (6) Simultaneous with the proposed amendment for the aFRR IF, TSOs propose an amendment of the Pricing Methodology¹ to include an alternative determination of the aFRR CBMP. The way the cross-border marginal price is computed should also be reflected in the aFRR implementation framework. The reason being that (i) all TSOs propose to use the setpoint for automatic FRR activation in order to compute the cross-border marginal price and (ii) the cross-border marginal price is an output of the activation optimisation function (AOF). This means that the AOF should have access to the setpoint for automatic FRR activation in order to compute the cross-border marginal price, which is currently not the case.
- (7) The amended aFRR IF fulfils the general principles, goals and other methodologies set in the EB Regulation, the SO Regulation, the Commission Regulation (EU) 2019/943 on the internal market for electricity (hereafter referred to as the “Electricity Regulation”) as well as the Commission Regulation (EC) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Commission Regulation (EC) No 714/2009 (hereafter referred to as the “Transparency Regulation”).
- (8) The amendment proposal continues to fulfil the objectives of EB Regulation. In particular,
- a. the introduction of elastic aFRR demand as proposed by All TSOs fosters effective competition, non-discrimination and transparency in balancing markets. As required for elastic mFRR demand in the mFRR implementation framework, the elastic aFRR demand “shall not be used in such a way that it imposes a cap on balancing energy prices for all LFC areas or bidding zones”. As explained above, part of the aFRR demand has to be priced inelastic and will lead to the activation of balancing energy bids regardless of their price. This could lead to a very high CBMP, in particular in cases where TSOs in the uncongested area have a simultaneous (large) demand in the same direction, and bids at the end of the common merit order are activated. Transparency on the use of elastic aFRR will on the one hand be ensured by the publications of the rules to define the volume and price or prices of this elastic aFRR demand (i.e., one-time publication, which is to be updated in case of changes) by the relevant TSO. On the other hand, each TSO using elastic demand will publish the elastic demand curves as soon as possible after their application. In addition, the yearly common report of all member TSOs will be extended by the inclusion of information on the usage of elastic aFRR demand.
 - b. the introduction of elastic aFRR demand as proposed by All TSOs enhances the overall efficiency of balancing measures as well as the efficiency of European and national balancing markets by allowing a TSO to decide up to which price it wants to satisfy part of its aFRR demand: if the aFRR demand exceeds the need for aFRR reserves as determined by the TSO in accordance with Article 157 of the SO Regulation, this TSO may decide, without prejudice to the

¹ Methodology for pricing balancing energy and cross-zonal capacity used for the exchange of balancing energy or operating the imbalance netting process in accordance with Article 30(1) of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

provisions of Article 128 of SO Regulation, to only satisfy the exceeding demand (and further improve the frequency quality compared to the situation without PICASSO) if this is not too costly. If the cross-border marginal price (CBMP) is below the price defined by the TSO, the entire demand of the TSO will be satisfied at the CBMP, improving the frequency quality compared to the situation without PICASSO. If the CBMP is above the price limit defined by the TSO, only the inelastic part of its aFRR demand will be satisfied at the CBMP and the elastic part of its aFRR demand will not be satisfied, limiting the activation cost of the TSO while still ensuring an acceptable level of frequency quality (but not “overperforming”). Such behaviour is in line with the principle under SO Regulation Article 4(2)(c) and EB Regulation Article 3(2)(c) obliging transmission system operators to apply the principle of optimisation between the highest overall efficiency and lowest total costs for all parties involved.

In addition to the minimum level of inelastic aFRR demand based on dimensioning rules for aFRR, all provisions of the SO Regulation (e.g., on the time to restore frequency) apply that will lead to additional limitations. To do so, the TSO can activate other available means (standard or local specific); alternatively, the TSO can decide to rely on aFRR available in excess to the volume of aFRR that is needed to cover intra-quarter-hour system imbalance variations and comply with its FRCE target parameters, but the TSO then needs to ensure the actual activation of the product by using inelastic aFRR demand.

- c. the introduction of elastic aFRR demand as proposed by All TSOs supports the integration of balancing markets by allowing the exchange of balancing energy on a European level while ensuring operational security in real-time;
- d. the introduction of elastic aFRR demand as proposed by All TSOs ensures an effective and efficient operation of the balancing energy market also in the long-term and thus contributes to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union while facilitating the efficient and consistent functioning of day-ahead, intraday and balancing markets;
- e. the introduction of elastic aFRR demand as proposed by All TSOs fosters the liquidity of balancing markets while preventing undue distortions within the internal electricity market by allocating the operation of the European platforms to different TSOs.

(9) For the purposes of this second amendment to the aFRR IF, the terms used have the meaning given to them in Article 2 of the Electricity Regulation, Article 2 of the EB Regulation and Article 3 of the SO Regulation and the definitions set out in Article 2 of Annex I of the Decision No 01/2020 of the Agency for the Cooperation of the Energy Regulators of 24 January 2020 on the Pricing Methodology.

(10) The aFRR amendment proposal ensures consistency with the proposed amendment of Annex I of the Decision No 01/2020 of the Agency for the Cooperation of the Energy Regulators of 24 January 2020 on the Pricing Methodology which is proposed simultaneously.

(11) Article 21(1) of the EB Regulation requires All TSOs to develop the aFRRIF. 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 Systemen 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 tīkls - AS Augstsprieguma tīkls, 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., Transelectrica - C.N. Transelectrica S.A., SEPS - Slovenská elektrizačná 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 IMPLEMENTATION FRAMEWORK FOR THE EUROPEAN PLATFORM FOR THE EXCHANGE OF BALANCING ENERGY FROM FREQUENCY RESTORATION RESERVES WITH AUTOMATIC ACTIVATION TO ACER

Article 1

Definitions

Article 2 – Definitions and interpretation – of aFRR IF is amended as follows:

- a) A new literal (c) shall be added to Paragraph 1 and be read accordingly:

«‘aFRR cross-border marginal price’ means a single clearing price for aFRR for each uncongested area as determined in accordance with the methodology pursuant to Article 30 of the EB Regulation; »

- b) A new literal (j) shall be added to Paragraph 1 and be read accordingly:

«‘elastic aFRR demand’ is a TSO demand for activation of a standard aFRR balancing energy product bid of which the satisfaction depends on the aFRR cross-border marginal price; »

- c) A new literal (n) shall be added to Paragraph 1 and be read accordingly:

«‘inelastic aFRR demand’ is a TSO demand for activation of a standard aFRR balancing energy product bid that needs to be satisfied irrespective of the aFRR cross-border marginal price; »

- d) A new literal (s) shall be added to Paragraph 1 and be read accordingly:

«'setpoint for automatic FRR activation' means the output of the frequency restoration controller within an LFC area as described in Art. 145(4) of SO Regulation. The setpoint for automatic FRR serves as the basis for determining the setpoints for BSPs within this LFC area but does not consider

the BSP ramping restrictions that could be taken into account before sending the final activation signals to the BSPs. »

Article 2

High-level design of the aFRR-Platform

Article 3 – High-level design of the aFRR-Platform – of aFRR IF shall be amended as follows:

a) A new paragraph 4 shall be added and be read accordingly:

« A participating TSO may submit an elastic aFRR demand for positive or negative balancing energy within one MTU with the price it is willing to pay or receive for the activation of standard aFRR balancing energy product bid. A participating TSO shall not:

- a) use elastic aFRR demand if the aFRR demand is lower or equal to the aFRR capacity requirement resulting from the application of the ratio between aFRR and mFRR of the FRR capacity requirement determined for the relevant LFC block pursuant to the dimensioning rules as referred to in Article 157 of Regulation (EU) 2017/1485, such (part of the) aFRR demand having to be satisfied irrespective of the price (i.e., be inelastic demand);
- b) use the elastic aFRR demand in such a way that it imposes a cap on balancing energy prices for all LFC areas or bidding zones.
- c) use elastic aFRR demand, before the publication in English language of the:
 - i. rules of dimensioning FRR, including share of aFRR and mFRR; and,
 - ii. local rules to define the volume and price or prices of this elastic aFRR demand. »

b) A new paragraph 5 shall be added and be read accordingly:

« To ensure transparency of using the elastic demand, each TSO using elastic demand shall publish the elastic demand curves as soon as possible after their application. »

c) A new literal (b) shall be added to new Paragraph 6 (previously Paragraph 4) and be read accordingly:

« the setpoint for automatic FRR activation of every LFC area of each participating TSO being continuously reported to the aFRR-Platform by each participating TSO. The sign convention for the setpoint for automatic FRR activation is: negative value where negative aFRR balancing energy needs to be activated in the LFC area; and positive value where positive aFRR balancing energy needs to be activated in the LFC area; »

Article 3

Transparency and reporting

Article 13 – Transparency and reporting – of aFRR IF is amended as follows:

a) A new literal (b) shall be added to Paragraph 1 and be read accordingly:

« the usage of elastic aFRR demand pursuant to Article 3(4), including situations where elastic aFRR demand was satisfied and to which degree the elastic aFRR demand was fulfilled and the influence of satisfying elastic aFRR demand on the aFRR cross-border marginal price; »

Article 4

Implementation Timeline

All TSOs shall implement this amendment to the aFRR Implementation Framework latest either 24 months after the deadline by which a TSO shall use the European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation according to Article 19(6) of EB Regulation or one month after the publication of the decision by the Agency for the Cooperation of Energy Regulators.

Article 5

Publication of the Amendment

All TSOs shall publish this amendment to the aFRR Implementation Framework without undue delay pursuant to Article 7 of EB Regulation after a decision has been taken by the Agency for the Cooperation of Energy Regulators in accordance with Articles 5(2)(a), of the EB Regulation and Articles 5(2) Regulation (EU) 2019/942 establishing a European Union Agency for the Cooperation of Energy Regulators

Article 6

Language

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