ACER
European Union Agency for the Cooperation of Energy Regulators

ACER Decision on the Implementation framework for a European platform for the exchange of balancing energy from frequency restoration reserves with manual activation: Annex II

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

in accordance with Article 20 of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

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Whereas

(1) This document describes the implementation framework for the European platform for the exchange of balancing energy from frequency restoration reserves with manual activation (hereafter referred to as the "mFRR-Platform") pursuant to Article 20(1) of the Regulation (EU) 2017/2195 establishing a guideline on electricity balancing (hereafter referred to as the "EB Regulation"). This methodology is hereafter referred to as the "mFRRIF".

(2) The mFRRIF takes into account the general principles, goals and other methodologies set in the EB Regulation, the Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation (hereafter referred to as the "SO Regulation"), the Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (hereafter referred to as the "Electricity Regulation") as well as the Regulation (EC) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council (hereafter referred to as the "Transparency Regulation").

(3) The goal of the EB Regulation is the integration of electricity balancing markets. The integration of balancing energy markets should be facilitated with the establishment of common European platforms for the exchange of balancing energy from frequency restoration reserves and replacement reserves, and for operating the imbalance netting process (hereafter referred to as "INP"). To facilitate this goal, it is necessary to develop implementation frameworks for European platforms for balancing energy exchange from frequency restoration reserves with automatic and manual activation (hereafter referred to as "aFRR" and "mFRR" respectively), replacement reserves (hereafter referred to as "RR") and the INP. The Articles 20(1) and 20(2) of the EB Regulation constitute the legal basis for this methodology.

(4) This mFRRIF lays down the design, functional requirements, governance and cost sharing of the mFRR-Platform, which should be able to perform among others the activation optimisation function (hereafter referred to as 'AOF') as described in the Article 20 of the EB Regulation.

(5) Article 20(2) of the EB Regulation requires that the mFRR-Platform*, "[s]hall be based on common governance principles and business processes and shall consist of at least the activation optimisation function and the TSO-TSO settlement function."* This mFRRIF fulfils these requirements by defining the common business processes of the TSO-TSO model as well as the AOF and the TSO-TSO settlement function. The common governance principles are also set forth by this mFRRIF.

(6) Article 20(2) of the EB Regulation states further that "*[t]his European platform shall apply a multilateral TSO-TSO model with common merit order lists to exchange all balancing energy bids from all standard products for mFRR, except for unavailable bids pursuant to Article 29(14)."* These common merit order lists as well as the possibility to declare bids as unavailable are defined in this mFRRIF.

(7) This mFRRIF defines the application of the TSO-TSO model and the high-level design of the mFRR-Platform required by Article 20(3)(a) of the EB Regulation. The high-level design includes basic principles of the AOF including the constraints.

(8) This mFRRIF defines specific requirements for the calculation of the capacity limits on mFRR balancing borders. Where mFRR balancing border does not correspond to bidding zone border the capacity limits should be infinite and where it does correspond to a bidding zone border the capacity limits should be the cross-zonal capacities. In the first step, the cross-zonal capacities should be based on the cross-zonal capacities remaining after the end of the single intraday coupling and updated, where relevant, for emerging operational security issues during balancing timeframe and to take into account electricity exchanges within the balancing timeframe, inter alia, the replacement power interchange and the manual

frequency restoration power interchange. In the second step, once the methodology for cross-zonal capacity calculation within the balancing timeframe in accordance with Article 37(3) of the EB Regulation will be adopted and implemented, the cross-zonal capacities resulting from such methodology should be used instead of the cross-zonal capacity remaining after the end of single intraday coupling. Moreover, this mFRRIF may require an amendment if the methodology in accordance with Article 37(3) of the EB Regulation would also have an impact on the updating process or introduces other changes to the approach defined in this mFRRIF.

(9) Article 20(3)(b) of the EB Regulation requires that the mFRRIF determines the roadmap and timeline for the implementation of the mFRR-Platform which should be consistent with the deadlines for making the mFRR-Platform operational as defined in Article 20(6) of the EB Regulation. Implementation of the mFRR-Platform means implementing all necessary IT systems in order to operate the frequency restoration process for the exchange of balancing energy from mFRR. This mFRRIF adopts the establishment of mFRR-Platform with the dedicated implementation project, which will draw experience and achievements from existing implementation projects and initiatives.

(10) Article 20(3)(c) of the EB Regulation requires the determination of functions required to operate the mFRR-Platform. This mFRRIF fulfils this requirement by defining the AOF, the TSO-TSO settlement function and the capacity management function ('CMF'). The AOF takes, among others, mFRR demands, the common merit order lists and mFRR cross-zonal capacities as input and determines the amount of manual frequency restoration power interchange between LFC areas, which aims to ensure the activation of the most cost efficient mFRR balancing energy bids, pursuant to Article 31 of the EB Regulation. The TSO-TSO settlement function implements the settlement of intended energy exchanges as a result of the cross-border FRR activation process for the frequency restoration process with manual activation (hereafter referred to as "mFRP ") between the TSOs. The CMF implements the continuous updating of cross-zonal capacities that are available for the manual frequency restoration power interchanges on bidding zone borders and can be implemented as a common function for all balancing platforms established pursuant to EB Regulation.

(11) This mFRRIF defines the governance and the decision-making process for the implementation and operation of the mFRR-Platform as required by Article 20(3)(d) of the EB Regulation. A steering committee or a joint steering committee, in case other balancing platforms have a cross-platform function such as the CMF, should be established to make decisions regarding the mFRR-Platform, in accordance with the principles of the decision-making process defined in Article 4 of the EB Regulation.

(12) Article 20(3)(e) of the EB Regulation requires to determine the designation of the entity or entities that will operate the functions of the mFRR-Platform. This mFRRIF determines the designation of multiple entities to operate the three functions of the mFRR-Platform being the AOF, the TSO-TSO settlement function and the CMF. This mFRRIF furthermore ensures that, in case other balancing platforms have such function, the CMF is the same across these platforms and is operated by the same TSO, if the same obligation is imposed in the relevant implementation framework of each platform. This designation ensures that the governance and operation of the European platform is based on the principle of non-discrimination and the equitable treatment of all member TSOs, and that no TSO benefits from unjustified economic advantages through the participation in the functions of the European platform as required by Article 20(3)(d) of the EB Regulation. It also facilitates the objectives of the EB Regulation as referred to in Article 3(b) and (d) therein.

(13) As the designation setup involves multiple entities to perform the functions of the mFRR-Platform, additional requirements in accordance with Articles 20(3)(e)(i), 20(3)(e)(ii) and 20(3)(e)(iii) of the EB Regulation apply.

(14) Article 20(3)(e)(i) of the EB Regulation requires a coherent allocation of functions taking into account the need to coordinate the different functions. This mFRRIF creates a consistent setup by clearly allocating the functions and respective responsibilities and tasks to different entities ensuring their coordination.

(15) Article 20(3)(e)(ii) of the EB Regulation requires the setup of the mFRR-Platform to ensure an efficient and effective governance, operation and regulatory oversight as well as to support the objectives of the EB Regulation. This mFRRIF introduces a joint steering committee as in case other balancing platforms have a cross-platform function such as the CMF, the steering committee should be the same across these platforms. An annual work programme including necessary information on all projects and clearly allocating responsibilities provides for the project management of the mFRR-Platform. The definition of principles for the cooperation framework established between TSOs and the entities designated to perform the functions should ensure liability regimes to be established as well the conditions for renewal or termination of contracts. The IT solutions are to be governed and owned by all member TSOs. With regard to operations, back-up and fall-back provisions ensure the continuity of the mFRR-Platform. Transparency provisions enable regulatory oversight and reporting on the multiple entity setup in this mFRRIF ensures effectiveness and efficiency in the long run.

(16) Article 20(3)(e)(iii) of the EB Regulation requires an effective coordination and decision making process to resolve any conflicting positions between entities operating the mFRR-Platform. The respective processes are described in this mFRRIF, including disputes involving TSOs as well as entities designated to perform the functions of the mFRR-Platform. The binding character of any outcome is to be respected by the involved parties and the dispute resolution process does not preclude the application of interim measures.

(17) Article 20(3)(f) of the EB Regulation requires that the mFRRIF includes a framework for harmonisation of terms and conditions related to balancing. This mFRRIF sets out a process to identify, consult, adopt and implement the necessary harmonisation.

(18) Article 20(3)(h) of the EB Regulation requires that the mFRRIF includes the balancing energy gate closure time for all standard mFRR balancing energy product bids and Article 20(3)(j) of the EB Regulation requires that mFRRIF includes the TSO energy bid submission gate closure time. The respective gate closure times are defined in this mFRRIF. The gate closure times also apply to bids for specific products converted into standard mFRR balancing energy products according to Article 26(1)(d) of the EB Regulation. For avoidance of doubt, the gate closure times specified in this mFRRIF do not apply for specific products which are activated only locally.

(19) Article 20(3)(i) of the EB Regulation requires the definition of standard mFRR balancing energy products in accordance with Article 25 of the EB Regulation. This mFRRIF defines all characteristics of a standard mFRR balancing energy product in accordance with Article 25(5) of the EB Regulation as well as several variable characteristics of a standard mFRR balancing energy product which should be determined during the prequalification or when submitting the standard mFRR balancing energy product bid in accordance with Article 25(4) of the EB Regulation. This implementation framework further clarifies the possible specifications of the characteristics of the mFRR standard product to be defined in terms and conditions for balancing service providers (hereafter ‘BSPs’).

(20) Article 20(3)(k) of the EB Regulation requires the organisation of the common merit order lists by the AOF pursuant to Article 31 of the EB Regulation. This mFRRIF describes the creation of the two common merit order lists from the standard mFRR balancing energy product bids for positive and negative balancing energy, pursuant to Article 31(2) and (3) of the EB Regulation.

(21) Article 20(3)(l) of the EB Regulation requires a description of the algorithm for the operation of the AOF for the standard mFRR balancing energy product bids in accordance with Article 58 of the EB Regulation. This mFRRIF provides this description including the objective functions and the constraints of the algorithm. This mFRRIF adopts an integrated algorithm that optimises activation and cross-zonal exchanges of standard mFRR balancing energy product bids.

(22) This mFRRIF shall aim at explicitly taking into account the cross-zonal capacity that has been allocated for the exchange of balancing capacity or sharing of reserves according to Article 38(1) of the EB Regulation into the AOF in order to give a priority access to the allocated cross-zonal capacity to the TSOs that have allocated this cross-zonal capacity.

(23) This mFRRIF fulfils the objectives stated in Article 3 of the EB Regulation as follows:

(a) The mFRRIF contributes to fostering effective competition as required by Article 3(1)(a) of the EB Regulation, by defining a standard mFRR balancing energy product, including the respective bid parameters, and striving for further harmonisation during the operation of the mFRR platform.

(b) This mFRRIF is non-discriminatory as required by Article 3(1)(a) of the EB Regulation, as it applies the same rules for all TSOs and balancing service providers (hereafter referred to as "BSPs"). In particular, the standard mFRR balancing energy product is defined based on the TSOs' need and not on the technical characteristics of the providers, and it does not differ between technologies. Moreover, the rules set out in this mFRRIF for the governance and the decision-making process as well as the requirements put on the entities designated to perform the functions of the mFRR-Platform ensure the non-discrimination among them.

(c) This mFRRIF contributes to the transparency in balancing markets, as required by Article 3(1)(a) of the EB Regulation, by specifying extensive requirements on publication and monitoring with respect to (a) the operation of the mFRR-Platform, e.g. on fall-back procedures and the effectiveness and efficiency of the multiple entity setup, (b) the AOF, e.g. regarding the outputs, the length of the market time unit and providing detailed descriptions of the algorithm's functioning to the public, (c) TSOs actions, e.g. on changing bids and (d) the impact on the market, e.g. on the efficiency of the pricing methodology. The mFRRIF also ensures transparency on costs to operate the mFRR-Platform and transparency towards regulatory authorities and ACER.

(d) This mFRRIF enhances the efficiency of balancing as well as the efficiency of the European and national balancing markets, as required by Article 3(1)(b) of the EB Regulation, by requiring entities designated to perform the functions of the mFRR-Platform to perform their tasks in a cost-efficient way and by establishing a function for the consistent and transparent update of the available cross-zonal capacities, and requiring its cross-zonal implementation in case the same function is also implemented in other platforms, by organising common merit order lists, and by ensuring that usage of the available cross-zonal capacity is the output of an optimisation algorithm which aims to activate the most cost-efficient standard mFRR balancing energy product bids to cover the mFRR demand.

(e) This mFRRIF as required by Article 3(1)(c) of the EB Regulation, contributes to integrating balancing markets and promoting the possibilities for exchanges of balancing services while contributing to operational security, by establishing a common platform for the exchange of balancing energy from the activation of mFRR. The definition of the standard mFRR balancing energy product, accommodating all TSOs needs, promotes the usage of this product, limiting the need for introducing specific products, thus increasing the possibilities for exchanges of

balancing energy. The rules described in this mFRRIF for the operation of the platform, with respect to the cross-border mFRR activation process, and to the TSOs flexibility to request adjustments to the available cross-zonal capacities or change the status or volume of bids, take into account the requirements of the SO Regulation, contributing to operational security.

(f) This mFRRIF, as required by Article 3(1)(d) of the EB Regulation, contributes to the efficient long-term operation and development of the electricity transmission system by promoting the efficient use of the available cross-zonal capacities through the optimisation of the balancing energy exchanges as a result of the mFRP, achieved by the mFRR platform, as described in (d) above. Additionally, as required also by Article 3(1)(d), the mFRRIF facilitates the efficient and consistent functioning of day-ahead, intraday and balancing markets, by clearly separating the timeframes. Setting the balancing energy gate closure time for the mFRR platform later than the gate closure time for the cross-border intraday market, provides the possibility for market participants to balance themselves.

(g) This mFRRIF, as required by Article 3(1)(e) of the EB Regulation, contributes to fair, objective, transparent and market-based procurement of balancing energy for the mFRP, by specifying non-discriminatory rules for TSOs and BSPs, regarding the operation of the mFRR platform. Additionally, as also required by Article 3(1)(e) of the EB Regulation, this mFRRIF avoids undue barriers to entry for new entrants and fosters the liquidity of balancing markets by specifying the characteristics of the standard mFRR balancing energy product, based on the TSOs needs and not on the BSPs characteristics, and by establishing a framework for further harmonisation.

(h) This mFRRIF, as required by Articles 3(1)(f) and (g) of the EB Regulation, facilitates the participation of demand response including aggregation facilities, energy storage and renewable energy sources, by establishing a level-playing field for all BSPs, through the non-discriminatory and transparent rules for the operation of the mFRR platform, and the harmonisation of the standard mFRR balancing energy product characteristics.

Article 1
Subject matter and scope

1. This mFRRIF is the methodology developed in accordance with Article 20(1) of the EB Regulation and establishes a conceptual and legal framework for the implementation of the European platform for the exchange of frequency restoration reserves with manual activation.

2. The implementation, operation and usage of the mFRR-Platform is mandatory for all TSOs. Where an LFC area consists of more than one monitoring area, only the TSO appointed in the LFC area operational agreement as responsible for the implementation and operation of the mFRP according to Article 143(4) of the SO Regulation (hereafter referred to as "appointed TSO") shall use the mFRR-Platform. For avoidance of doubt, all TSOs shall become participating TSOs in accordance with the implementation process set out in Article 5, except where an LFC area consists of more than one monitoring area, in which case only the appointed TSO shall become a participating TSO.

3. This methodology applies solely for the exchange of standard mFRR balancing energy products. The European platforms for the INP, exchange of balancing energy from aFRR and exchange of balancing energy from RR are out of the scope of this mFRRIF.

4. The classification of the activation purposes of balancing energy bids is out of the scope of this mFRRIF and shall be treated in a methodology pursuant to Article 29 of the EB Regulation.

5. The pricing of balancing energy that results from the activation of balancing energy bids and cross-zonal capacity used for the exchange of balancing energy or for operating the INP is out of the scope of this mFRRIF and shall be treated in a methodology pursuant to Article 30 of the EB Regulation.
6. The common TSO-TSO settlement rules applicable to the mFRR-Platform is out of the scope of this mFRRIF and shall be treated in a methodology pursuant to Article 50 of the EB Regulation.

Article 2
Definitions and interpretation

1. For the purposes of this mFRRIF, the terms used shall have the meaning given to them in Article 2 of the Electricity Regulation, Article 2 of the Transparency Regulation, Articles 3 of the SO Regulation and Article 2 of the EB Regulation. In addition, in this mFRRIF the following terms shall apply:
   (a) 'availability status' means the condition of a bid being available or unavailable for cross-border activation pursuant to Article 29(9) and (14) of the EB Regulation;
   (b) 'available standard mFRR balancing energy product bid' means a standard mFRR balancing energy product bid which was not declared as unavailable by the participating TSO;
   (c) 'complex bids' means complex bid structures of a BSP with the purpose of economic optimization, allowing BSPs to offer more flexibility, to reflect efficiently their underlying cost structure in their offered bids, and to maximize the opportunity of being activated;
   (d) 'conditional linking' means links between bids of a BSP in up to three consecutive quarter hours, needed to represent technical restrictions and cost structure of the underlying assets, due to the unavailability of information on the activation of bids from previous quarter hours at the balancing energy gate closure time, where the linking between quarter hours can be made without the restriction of being consecutive.
   (e) 'cross-border marginal price' means a single clearing price for each uncongested area as determined in accordance with the methodology pursuant to Article 30 of the EB Regulation;
   (f) 'direct activatable bid' means a standard mFRR balancing energy product bid that can be activated at any point of time following the point of scheduled activation of the quarter hour for which the bid is submitted and until the point of scheduled activation of the subsequent quarter hour. Every direct activatable bid is a scheduled activatable bid as well;
   (g) 'divisible bid' means a standard mFRR balancing energy product bid, which can be activated partially in terms of power activation according to the bid activation granularity pursuant to Article 6(5);
   (h) 'economic surplus' means, in the context of the AOF, the sum of (i) the BSPs surplus for the mFRR-Platform for the relevant mFRR MTU, (ii) the TSOs surplus for the mFRR-Platform, (iii) the congestion income and optionally (iv) other related costs and benefits where these increase economic efficiency for the relevant mFRR MTU. BSPs' surplus is the sum of products between the selected volume of standard mFRR balancing energy bids and the corresponding differences between the price of these bids and the balancing energy price pursuant to Article 30(1) of the EB

Regulation. TSOs' surplus is the sum of products between the satisfied mFRR demands and the corresponding differences between the price of these demands (maximum price in case of inelastic demand) and the balancing energy price pursuant to Article 30(1) of the EB Regulation;

(i) 'elastic mFRR demand' is a TSO demand for activation of standard mFRR balancing energy product bid of which the satisfaction depends on the price of standard mFRR balancing energy product bids;

(j) 'exclusive groups' are a type of complex bids, consisting of a group of bids, where only one bid can be activated from the list of bids being part of the exclusive group;

(k) 'expert group' means a body composed of nominated experts of all member TSOs and established by the steering committee;

(l) 'granularity' means the smallest increment in volume of a standard mFRR balancing energy product bid;

(m) 'indivisible bid' means a standard mFRR balancing energy product bid, which cannot be activated partially in terms of power activation according to the bid activation granularity pursuant to Article 7(2). Therefore, the volume of an indivisible bid is always activated altogether;

(n) 'inelastic mFRR demand' is a TSO demand for activation of standard mFRR balancing energy product bid, which needs to be satisfied irrespective of the price of the activation of standard mFRR balancing energy product and therefore the price limit is set at the value of the technical price limit defined in the methodology pursuant to Article 30(1) of the EB Regulation;

(o) 'joint steering committee' means the joint decision-making body of the European platforms for the exchange of balancing energy and for the imbalance netting process as established in accordance with Article 14;

(p) 'MARI' means "Manually Activated Reserves Initiative" and is the implementation project that shall evolve into the mFRR-Platform;

(q) 'member TSO' means any TSO to which the EB Regulation applies and which has joined the mFRR-Platform, including TSOs from multi-TSO LFC areas that are not appointed via their LFC area operational agreement to be responsible for implementing and operating the mFRP pursuant to Part IV of the SO Regulation, and in particular Articles 141 and 143 therein;

(r) 'mFRR balancing border' means a set of physical transmission lines linking adjacent LFC areas of participating TSOs. In case an LFC area consists of more than one bidding zone, the mFRR balancing border means a set of physical transmission lines linking adjacent bidding zones;

(s) 'mFRR balancing border capacity limits' means the limits for the manual frequency restoration power interchange in import or positive direction and export or negative direction for an mFRR balancing border or a set of mFRR balancing borders and serving as constraints for the optimisation algorithm;

(t) 'mFRR demand' means a TSO demand representing the activation request for standard mFRR balancing energy product bids in the context of Article 145(5) of the SO Regulation;

(u) ‘mFRR market time unit’ (hereafter “mFRR MTU”) means a period of 15 minutes length. The first mFRR MTU starts at 00:00 market time. The mFRR MTUs shall be consecutive and not overlapping;

(v) ‘multipart bids’ are a type of complex bids, consisting of a group of bids, where individual positive balancing energy bids can only be activated according to increasing price, or individual negative balancing energy bids can only be activated according to decreasing price;

(w) ‘participating TSO’ means any member TSO using the mFRR-Platform in order to exchange standard mFRR balancing energy products. For avoidance of doubt, where an LFC area consists of more than one monitoring area, only the TSO appointed in the LFC area operational agreement as responsible for the implementation and operation of the mFRP according to Article 143(4) of the SO Regulation shall become participating TSO;

(x) ‘point of scheduled activation’ means the point in time from which full activation time is measured for the scheduled activation and is 7.5 minutes before beginning of the quarter hour for which the BSPs place the respective standard mFRR balancing energy product bid. The BSP receives activation request 12.5 minutes before expected full activation;

(y) ‘scheduled activatable bid’ means a standard mFRR balancing energy product bid that can only be activated at one specific point in time, i.e. the point of scheduled activation, with respect to the period of time for which the balancing energy bid is submitted;

(z) ‘standard mFRR balancing energy product’ means the standard product for balancing energy from mFRR, pursuant to Article 25(1) of the EB Regulation;

(aa) ‘standard mFRR balancing energy product bid’ means the balancing energy bid for a standard mFRR balancing energy product;

(bb) ‘steering committee’ means the decision-making body of the mFRR-Platform consisting of nominated representatives from all member TSOs and is the superior body to the expert group;

(cc) ‘technical exchange limit’ means an artificial cap of the balancing energy exchange between two adjacent LFC areas, which are not separated by a bidding zone border, that is needed only for functioning of the optimisation algorithm;

(dd) 'technical linking’ means links between bids of a BSP in two consecutive quarter hours, needed to avoid the underlying asset performing unfeasible activations, due to the unavailability of information on the activation of bids from previous quarter hours at the balancing energy gate closure time; and

(ee) ‘usage of the mFRR-Platform’ means exchanging standard mFRR balancing energy product bids between two or more LFC areas or bidding zones via the mFRR-Platform, in order to operate the frequency restoration process for the exchange of balancing energy from mFRR, where the activation of balancing energy from mFRR follows the principle of a common merit order.

2. ‘ENTSO-E’ stands for ‘ENTSO for electricity’ and ‘HVDC’ stands for ‘high voltage direct current’.

3. In this mFRRIF, unless the context requires otherwise:

   (a) the singular indicates the plural and vice versa;

(b) the table of contents and headings are inserted for convenience only and do not affect the interpretation of this mFRRIF;

(c) any reference to cross-zonal capacities shall include also the reference to allocation constraints as defined in the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management ('CACM Regulation');

(d) any reference to legislation, regulations, directives, orders, instruments, codes or any other enactment shall include any modification, extension or re-enactment of it when in force; and

(e) any reference to an Article without an indication of the document shall mean a reference to this mFRRIF.

Article 3
High-level design of the mFRR-Platform

1. The mFRR-Platform shall establish a cross-border mFRR activation process in accordance with Article 147 and Article 149 of the SO Regulation.

2. The mFRR-Platform includes all LFC areas or bidding zones of the participating TSOs according to Article 147 of the SO Regulation and the mFRR balancing borders.

3. The mFRR-Platform shall consist of the AOF, the TSO-TSO settlement function and the CMF in accordance with Article 4(6).

4. The TSOs shall not put a price on their demand, except in cases where TSOs, at the time of defining the mFRR demand, have at their disposal alternative ways to meet this demand or to balance the system in general. In such case a TSO may define demand as elastic by respecting the following high level principles :

   (a) the elastic mFRR demand can be only submitted for scheduled activation. Demand for direct activation shall be always inelastic;

   (b) a TSO can submit an elastic mFRR demand for positive or negative balancing energy with the price it is willing to pay or receive for the activation of standard mFRR balancing energy product bid;

   (c) the elastic mFRR 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;

   (d) the price for mFRR demand for positive balancing energy shall not be lower than the price of the cheapest alternative bids for positive balancing energy available to the concerned TSO at the time of defining the mFRR demand in that mFRR MTU, and the price for mFRR demand for negative balancing energy shall not be higher than the price of the most expensive alternative bids for negative balancing energy available to the concerned TSO, respectively;

   (e) the volume of demand which can be submitted as elastic demand to the mFRR-Platform shall be restricted to the volume of alternative bids available to the TSO.

   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.

5. The inputs to the AOF of the mFRR-Platform shall be:

   (a) the mFRR demand of every LFC area or bidding zone, in case a LFC area consists of more than one bidding zone, of each participating TSO. Where a common mFRR demand is estimated for all LFC areas of an LFC block, the participating TSO responsible for the estimation of mFRR demand shall send the mFRR demand for the LFC block. The mFRR-Platform shall optimise the activation of standard mFRR balancing energy product bids located in all LFC areas of this LFC block. The sign convention for mFRR demand is: negative value where the LFC area or bidding zone is in power surplus and indicates that negative mFRR balancing energy needs to be activated; and positive value where the LFC area or bidding zone is in power deficit and indicates that positive mFRR balancing energy needs to be activated;

   (b) the mFRR balancing border capacity limits for the concerned mFRR balancing borders being continuously updated by the CMF in accordance with Article 4;

   (c) the list of standard mFRR balancing energy product bids for the LFC area or bidding zone, in case an LFC area consists of more than one bidding zone, of each participating TSO, which shall include all available standard mFRR balancing energy product bids from each bidding zone, which belongs to the LFC area of the participating TSO;

   (d) the availability status of standard mFRR balancing energy product bids that become available or unavailable after the TSO energy bid submission gate closure time according to Article 9(2);

   (e) other inputs of the AOF include, but are not limited to information that ensures safe and correct communication, the stability of the IT system and monitoring of the working of the systems and publication.

6. Participating TSOs applying a central dispatching model, pursuant to Article 27 of the EB Regulation, shall convert integrated scheduling process bids received from BSPs into standard mFRR balancing energy product bids and then submit them to the mFRR-Platform.

7. The AOF shall merge the lists of standard mFRR balancing energy product bids from each LFC area or bidding zone of each participating TSO, provided in accordance with Article 10, creating common merit order lists.

8. The mFRR balancing border capacity limits shall be determined in accordance with Article 4.

9. The outputs of the AOF shall be:

   (a) the manual frequency restoration power interchange on the mFRR balancing borders as defined in Article 147 of the SO Regulation;

   (b) the selected standard mFRR balancing energy product bids that shall be activated by the participating TSO;

   (c) the volume of satisfied mFRR balancing energy demands;

   (d) the total manual frequency restoration power interchange of each bidding zone or LFC area, being the sum of the manual frequency restoration power interchange on the mFRR balancing borders of the LFC area, resulting from the mFRR-Platform, pursuant to paragraph (a);

(e) the prices for mFRR balancing energy determined using the methodology in accordance with Article 30 of the EB Regulation;

(f) the prices for cross-zonal capacity used for the exchange of standard mFRR balancing energy products determined using the methodology in accordance with Article 30 of the EB Regulation; and

(g) other outputs of the AOF include, but are not limited to information that ensures safe and correct communication, the stability of the IT system, monitoring of the working of the systems and data relevant for the calculation of the performance indicators in accordance with Article 59(4) of the EB Regulation.

10. Each participating TSO may request the activation of a higher volume of standard mFRR balancing energy product bids from the common merit order lists, than the total volume of balancing energy submitted by this TSO to the mFRR-Platform, in accordance with Article 29(13) of the EB Regulation. In that case the mFRR-Platform will inform all participating TSOs, without undue delay, sending to them the information regarding the additional volume requested.

11. In case the AOF fails to produce outputs either due to algorithm or IT infrastructure issues, or in case a single or multiple TSOs fail to connect to the mFRR-Platform, and the fall-back procedures pursuant to Article 28(3) of the EB Regulation enter into force, the TSOs shall inform the market participants without undue delay. The provided information shall include the reason that triggered the fall-back procedures, the affected TSOs and LFC areas, the start time with the first affected validity period and the first affected mFRR MTU, as well as the estimated end date. Once the normal operation through the mFRR-Platform is restored, the mFRR-Platform shall inform the market participants specifying the start date with the first validity period and the first mFRR MTU, for which the balancing energy exchange is conducted through the mFRR-Platform. Each TSO shall publish this information as early as possible but no later than 30 minutes after end of the first mFRR MTU of the suspension or restoration of the participation.

12. In case the CMF and the back-up pursuant to Article Article 18(1) and Article 18(2) fail to produce outputs, each participating TSO shall individually send the available cross-zonal capacities to the mFRR-Platform.

13. The inputs to the TSO-TSO settlement function shall be:

(a) the manual frequency restoration power interchange on the mFRR balancing borders in accordance with Article 3(9)(a);

(b) the prices required by the methodology for common settlement rules in accordance with Article 50(1) of the EB Regulation and provided by the AOF in accordance with Article 3(9)(e) and 3(9)(f);

(c) other inputs of the TSO-TSO settlement function include, but are not limited to information that ensures robust and correct settlement process and financial data for invoicing.

14. The TSO-TSO settlement function shall determine the outputs using the methodology in accordance with Article 50(1) of the EB Regulation. The outputs of the TSO-TSO settlement function shall be:

(a) the intended exchange of mFRR balancing energy for settlement for each participating TSO;

(b) the settlement prices for the intended exchange of mFRR balancing energy as result of mFRP for each participating TSO;

(c) the calculation and distribution of the income generated by the exchange of balancing energy between LFC areas with different balancing energy prices and these different balancing energy prices;

(d) other outputs of the TSO-TSO settlement function include, but are not limited to information that ensures safe and correct communication, the stability of the IT system, monitoring of the working of the systems and data relevant for the calculation of the performance indicators in accordance with Article 59(4) of the EB Regulation.

15. The mFRR-Platform shall implement:

(a) the 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 of the EB Regulation;

(b) the classification methodology for the activation purposes of balancing energy bids in accordance with Article 29 of the EB Regulation;

(c) the TSO-TSO settlement rules for the intended exchange of energy in accordance with Article 50 of the EB Regulation.

16. Each participating TSO shall implement and carry out the procedures for the settlement of intended exchange of energy from the cross-border mFRP in a proper and timely manner.

17. The mFRR-Platform shall be implemented via a TSO-TSO model, which means in particular:

(a) the BSP submits standard mFRR balancing energy product bids to its participating TSO;

(b) the participating TSO verifies, amends if applicable pursuant to Articles 29(9), 29(10) and 29(14) of the EB Regulation, and submits the bids to the AOF;

(c) the AOF defines the optimal activation of bids and exchange between the TSOs, by requesting the activation of the selected bids from the participating TSO, while the request for activation of bids from the AOF shall oblige the requesting and participating TSOs to accept the firm exchange of mFRR balancing energy, in the context of the cross border FRR activation process, in accordance with Articles 147(4)(b), 147(4)(c) and 147(5) of the SO Regulation;

(d) the participating TSO ensures the activation of the standard mFRR balancing energy product bids selected by the AOF in accordance with Article 145(4);

(e) the connecting TSO or appointed TSO as described in Article 1(2) is responsible for prequalification, TSO-BSP settlement, monitoring and other obligations related to procurement or activation of standard mFRR balancing energy product bids in accordance with the EB Regulation and the SO Regulation.

18. Each participating TSO shall publish the exchange of volumes and prices provided by the AOF as soon as possible and no later than 30 minutes after the relevant end of the relevant mFRR MTU.

Article 4
Determination of the mFRR balancing border capacity limits as input to the optimisation algorithm

1. All participating TSOs shall determine for each mFRR balancing border the mFRR balancing border capacity limits. When the mFRR balancing border corresponds to a bidding zone border these limits shall be determined in accordance with paragraphs 2 to 4. When the mFRR balancing border does not correspond to a bidding zone border, the mFRR balancing border capacity limit shall be set to the technical exchange limit, which shall be equal to 99,999 MW in both directions.
2. All TSOs and the mFRR-Platform shall continuously update the mFRR cross-zonal capacities for each of the relevant bidding zone borders or set of bidding zone borders such that at any time the cross-zonal capacities available for mFRR exchanges represent:
    (a) the initial cross-zonal capacities which shall be either the cross-zonal capacities remaining after the single intraday coupling or cross-zonal capacities calculated in accordance with the methodologies pursuant to Article 37(3) of the EB Regulation;
    (b) the additional cross-zonal capacities allocated to the RR and mFRR process pursuant to Article 38(1) of the EB Regulation;
    (c) the already allocated cross-zonal capacities in the balancing timeframe:
        (i) the already confirmed cross-zonal replacement and manual frequency restoration power interchanges;
        (ii) cross-zonal exchanges resulting from other non-balancing processes notified by TSOs to the mFRR-Platform;
    (d) the adjustments of cross-zonal capacities pursuant to the SO Regulation:
        (i) adjustments requested for operational security reasons by participating or affected TSOs in accordance with Articles 147(3)(c), 148 (3)(c), 149(3) and 150(3)(b) of the SO Regulation;
        (ii) limitations imposed due to technical inability to facilitate cross-zonal manual frequency restoration power interchange on HVDC interconnectors in accordance with Articles 171(1), 146(3)(a), 147(3)(a) and 147(3)(b) of the SO Regulation.
3. The adjustments pursuant to paragraph 2(d) may also be applied to mFRR balancing borders that do not correspond to a bidding zone border. The adjustment pursuant to 2(d)(i) may only apply to operational security reasons which could not be addressed with the latest cross-zonal capacity calculation and coordinated regional operational security analysis and such adjustment shall be made and published as soon as the need is identified.
4. The participating or affected TSOs imposing adjustments pursuant to paragraph 2(d)(i) shall publish the request for these limitations, together with a justification for the request, no later than 30 minutes after the end of the relevant mFRR MTU in which the additional limitations have been requested.
5. The limitations pursuant to paragraph 2(d)(ii) may disable any exchange on mFRR balancing border that is constituted only of HVDC interconnectors. The limitation of a given mFRR balancing border is allowed when duly justified by the relevant TSOs concerned by the mFRR balancing border. The concerned regulatory authorities shall be notified of this limitation. The technical justification shall be published by the concerned TSOs.

6. No later than two years after the deadline for the implementation of the mFRR-Platform pursuant to Article 5(3)(b) all TSOs shall establish a CMF, which shall implement the continuous process described in paragraph 2. In case other balancing platforms have such function, the CMF shall be the same across these platforms, if the same obligation is imposed in the relevant implementation framework for these platforms.

Article 5
The roadmap and timeline for the implementation of the mFRR-Platform

1. By thirty months after the approval of this mFRRIF, all member TSOs shall implement and make operational the mFRR-Platform that fulfils every requirement defined in this mFRRIF (unless specific deadlines are provided in this mFRRIF) and further requirements according to Articles 29, 30 and 50 of the EB Regulation.
2. To fulfil the requirement pursuant to paragraph 1, all member TSOs shall establish the mFRR-Platform implementation project, which shall be based on the implementation project MARI that shall be transformed into the mFRR-Platform implementation project after the approval of this mFRRIF. As a consequence, all TSOs that are members of the implementation project MARI before the transformation may propose to all member TSOs that a share of the costs incurred in the implementation project MARI before the approval of this mFRRIF, but not before 1st January 2018, be considered as common costs in accordance with Article 23(6) of the EB Regulation. The decision on the proposal shall be made pursuant to Article 14(8).
3. All member TSOs shall ensure that the mFRR-Platform implementation project fulfils the deadlines pursuant to Articles 20(4) to (6) of the EB Regulation as follows:
    (a) by six months after the approval of this mFRRIF, all TSOs shall designate the entity responsible for performing the AOF and the TSO-TSO settlement function of the mFRR-Platform;
    (b) by thirty months after the approval of this mFRRIF, the mFRR-Platform shall be implemented and become operational and all TSOs shall use the mFRR-Platform;
    (c) before the deadline pursuant to point (b), all member TSOs shall gradually adapt the terms and conditions related to balancing in accordance with Article 18 of the EB Regulation and in line with their national legislation to make possible their early and timely accession to the mFRR-Platform;
    (d) the implementation project for the mFRR-Platform may allow for gradual implementation of the mFRRIF requirements and gradual accession of TSOs.
4. All member TSOs shall establish and update regularly and at least twice per year the roadmap for the implementation of the mFRR-Platform, which shall consist of the following elements:
    (a) development of new processes and amending existing ones related to mFRR exchange, activation purposes, pricing and settlement in accordance with this mFRRIF within thirty months after the approval of this mFRRIF;
    (b) development and regular update of an mFRR-Platform accession roadmap within three months after the approval of this mFRRIF, for all member TSOs that will become participating ones. The accession roadmap shall define for these TSOs timelines for:

(i) the adaptation and implementation of terms and conditions for BSPs by each member TSO;

(ii) the development of the functions of the mFRR-Platform;

(iii) the interoperability tests between each TSO and the mFRR-Platform;

(iv) the operational tests;

(v) the connection of each TSO to the mFRR-Platform;

(vi) making the mFRR-Platform operational;

(vii) the connection of all TSOs that have been granted a derogation by their respective regulatory authorities in accordance with Article 62 of the EB Regulation.

(c) the accession roadmap shall start after its finalisation by all participating TSOs and end no later than the mFRR-Platform is used by all participating TSOs.

5. All member TSOs shall publish the accession roadmap and in particular any information on national derogations shall be updated when new information becomes available.

Article 6
Functions of the mFRR-Platform

1. The mFRR-Platform shall consist of the AOF, the TSO-TSO settlement function and the CMF in accordance with Article 4(6). If deemed efficient when implementing the methodology for cross-zonal capacity (hereafter referred to as 'CZC') calculation within the balancing timeframe in accordance with Article 37(3) of the EB Regulation, a cross-zonal capacity calculation function may be added.

2. The purpose of the AOF shall be to coordinate the mFRP of the participating TSOs in accordance with the high-level design of the mFRR-Platform in Article 3 and the principles of the optimisation algorithm in accordance with Article 11.

3. The main purpose of the TSO-TSO settlement function shall be the calculation of the settlement amount that each participating TSO has to bear for the intended exchange of energy from the cross-border mFRP in accordance with the high-level design of the mFRR-Platform in Article 3.

4. The purpose of the CMF shall be to update continuously the mFRR cross-zonal capacities for each of the relevant bidding zone borders or set of biding zone borders such that at any time the cross-zonal capacities reflect the actually available cross-zonal capacities for manual frequency restoration power interchanges. The CMF shall be considered as a function required to operate the mFRR-Platform from the deadline referred to in Article 4(6).

5. If and when relevant, the purpose of the CZC calculation function shall be to implement the methodology for CZC calculation within the balancing timeframe in accordance with Article 37(3) of the EB Regulation. In case other balancing platforms have such function, the CZC calculation function shall be the same across these platforms, if the same obligation is imposed in the relevant implementation framework for these platforms.

Article 7
Definition of the standard mFRR balancing energy product

1. Each standard mFRR balancing energy product bid shall fulfil the following static characteristics:

Mode of activation	Manual
Activation type	Direct or scheduled
Full activation time ("FAT")	12.5 minutes
Minimum quantity	1 MW
Bid granularity	1 MW
Maximum quantity	9,999 MW
Minimum duration of delivery period	5 minutes
Price resolution	0.01 €/MWh
Validity Period	A scheduled activation can take place at the point of scheduled activation only. A direct activation can take place at any time during the 15 minutes after the point of scheduled activation.

Table 1: *Standard mFRR balancing energy product bid characteristics*

2. The delivery of a direct activatable bid shall include the mFRR MTU following the one the bid refers to.
3. The variable characteristics of the standard mFRR balancing energy product bid to be determined by the BSPs, during prequalification or when submitting the standard mFRR balancing energy product bid shall be:

   (a) defined by the following parameters:

Price	in €/MWh
Location	At least the smallest of LFC area or bidding zone.
Divisibility	BSPs are allowed to submit divisible bids with an activation granularity of 1 MW. BSPs are allowed to submit indivisible bids pursuant to Article 7(4).

Table 2 : Standard mFRR balancing energy product bid variable characteristics

   (b) the volume of the bid;

   (c) the direction of the bid: positive or negative balancing energy;

   (d) the price of the bid, be it positive, zero or negative, shall be defined in accordance with Table 1 of the EB Regulation;

   (e) the mFRR MTU the standard mFRR balancing energy product bid refers to;

   (f) other characteristics in accordance with national terms and conditions for BSPs pursuant to Article 18(5) of the EB Regulation;

4. When submitting standard mFRR balancing energy product bids, BSPs shall be allowed to provide information on technical linking between bids in two consecutive quarter hours and conditional linking between bids in up to three consecutive quarter hours.

5. When submitting standard mFRR balancing energy product bids, BSPs shall be allowed to submit complex bids being either multipart bids or exclusive groups. In addition, multipart bids and exclusive groups may be linked together only via technical linking.

6. The following standard mFRR balancing energy product bid characteristics shall be defined in the terms and conditions for BSPs, including, but not limited to:

Location	More detailed locational information, compared to what stated in Article 6(4), is defined in terms and conditions for BSPs
Preparation Period	Defined in terms and conditions for BSPs as long as it is compliant with the requirements set on the FAT in Article 7(1)
Ramping Period	Defined in terms and conditions for BSPs as long as it is compliant with the requirements set on the FAT in Article 7(1)
Deactivation Period	Defined in terms and conditions for BSPs as long as it is compliant with the requirements set on the FAT and on the minimum duration of delivery period in Article 7(1)
Maximum duration of delivery period	Defined in terms and conditions for BSPs due to different requirements on preparation period, ramping period and deactivation period
Indivisible Bids	Maximum size of indivisible bids is defined according to terms & conditions for BSPs
Minimum duration between the end of deactivation and the following activation	Defined in terms and conditions for BSPs

Table 3: Standard mFRR balancing energy product bid characteristics defined in terms and conditions for BSPs

7. The maximum size of indivisible bids shall be defined in the national terms and conditions for balancing and shall not be higher than the largest technical minimum production or consumption of the pre-qualified generation or load unit of the BSP.

8. In case of a central dispatching model, the variable characteristics of the standard mFRR balancing energy product bid may be determined by the connecting TSO based on integrated scheduling process bids submitted by BSPs following the rules for converting bids in a central dispatching model into standard mFRR balancing energy product bids pursuant to Article 27 of the EB Regulation.

Article 8
Balancing energy gate opening and gate closure times for the standard mFRR balancing energy product bids

1. The balancing energy gate opening time for the submission of a standard mFRR balancing energy product bid by BSPs to the participating TSO shall be no later than 12:00 market time for all mFRR MTUs of the next day.
2. The balancing energy gate closure time for the submission of a standard mFRR balancing energy product bid by BSPs to the participating TSO shall be 25 minutes before the beginning of the mFRR MTU of the respective standard mFRR balancing energy product bid. The same balancing energy gate closure time applies for specific product bids converted into standard mFRR balancing energy product bids.
3. For TSOs applying a central dispatching model, the balancing energy gate closure time for integrated scheduling process bids shall be defined pursuant to Articles 24(5) and 24(6) of the EB Regulation.

Article 9
TSO energy bid submission gate closure time and changes of the standard mFRR balancing energy product bids

1. The TSO energy bid submission gate closure time for the submission of the standard mFRR balancing energy product bids to the AOF of the mFRR-Platform by the participating TSO shall be 12 minutes before the beginning of the mFRR MTU of the respective standard mFRR balancing energy product bid.
2. Any time before the TSO energy bid submission gate closure time, the participating TSO may modify the bids in accordance with Article 29(9) of the EB Regulation or change the availability status of the bid in accordance with Article 29(14) of the EB Regulation. Only when, after the TSO energy bid submission gate closure time, new information becomes available to a participating TSO that affects the possibility to activate the standard mFRR balancing energy product bids, the participating TSO may apply these changes after the TSO energy bid submission gate closure time. To avoid the impact on the implementation and functioning of the mFRR platform, all TSOs shall define the latest possible time until such changes of bids shall be allowed.
3. Standard mFRR balancing energy product bids affected by the changes pursuant to paragraph 2 shall also be submitted to the mFRR platform. TSOs shall provide the explanation of the changes of the standard mFRR balancing energy product bids pursuant to paragraph 2 no later than 30 minutes after the relevant mFRR MTU. The changes of bids shall be expressed as changes to their available volume or availability status.
4. The changes pursuant to paragraph 2 shall be limited to the following two cases:
    (a) where the connecting TSO, or the appointed TSO as described in Article 1(2) reasonably expects that in the absence of these changes the activation of such bids would lead to violations of operational security limits or specifically frequency limits, when the expected violation would be caused by insufficiency of required reserve capacity or by technical unavailability of specific reserve providing unit(s) within the TSO or DSO control areas; and
    (b) where the bid is conditional on the bids submitted outside the mFRR-Platform and needs to be changed at the request of the BSP, who submitted it, in order to reflect the activation(s) of

conditional bid(s) outside of the mFRR-Platform, which have occurred after the mFRR balancing energy gate closure time.

5. In case of frequency limits and the required reserve capacity referred to in paragraph 4 where frequency limits are expected to be violated, only if these bids would be activated by TSOs other than connecting TSOs, the connecting TSOs or the appointed TSO as described in Article 1(2) may apply the changes pursuant to paragraph 4(a) only with respect to activation by other TSOs.
6. Following the requirement of Article 3(2)(a) of the EB Regulation, the national terms and conditions on balancing shall ensure non-discrimination between standard mFRR balancing energy product bids that are declared as unavailable by TSOs. Pursuant to Article 16(7) of the EB Regulation, there shall be no discrimination between standard mFRR balancing energy product bids submitted pursuant to the requirements of balancing capacity contracts and other standard mFRR balancing energy product bids.
7. When changing the bids pursuant to paragraph 2, the connecting TSO or the appointed TSO as described in Article 1(2) shall provide to the mFRR platform the reasons for such changes, which shall include at least:
   (a) the party requesting the change, i.e. a TSO, a DSO or a BSP;
   (b) in case of changes requested by a TSO or a DSO pursuant to paragraph (4)(a), the name of the TSO or a DSO and the exact operational security limit expected to be violated;
   (c) in case of changes requested by a TSO pursuant to paragraph (4)(a):
   (d) (i) in case of thermal limits the concerned network element(s); and
   (e) (ii) in case of frequency limits, whether the expected violation would be caused by insufficiency of required reserve capacity or by technical unavailability of specific reserve providing unit(s);
   (f) in case of changes requested by a BSP, the information that the bid has been modified due to activation(s) of conditional bid(s) pursuant to paragraph (4)(b).
8. Changes of bids to respect operational security limits as referred to in paragraph 7(c) shall only be possible for the most expensive standard mFRR balancing energy product bids of the connecting TSO having an impact on the concerned operational security limit(s) and taking into account their relative impact on the concerned operational security limit(s).
9. The information pursuant to paragraph 7 shall become available to all other TSOs, communicated to the affected BSP(s) by 30 minutes after the end of the relevant mFRR MTU and published in accordance with Article 12(3)(b)(v) of the EB Regulation. The information pursuant to paragraph 7 shall be reported in an aggregated form in the report referred to in Article 13.

Article 10
Common merit order lists to be organised by the AOF

1. Each BSP shall submit the standard mFRR balancing energy product bids to the participating TSO in accordance with Article 8.
2. Each BSP connected to a TSO applying a central dispatching model shall submit integrated scheduling process bids to the connecting TSO.
3. The participating TSO shall submit the standard mFRR balancing energy product bids to the mFRR-Platform in accordance with Article 9.

4. TSOs applying a central dispatching model, pursuant to Article 27 of the EB Regulation, shall convert integrated scheduling bids received from the BSPs into standard mFRR balancing energy product bids and then submit these bids to the mFRR-Platform.

5. The mFRR-Platform shall create two common merit order lists (one for bids for positive balancing energy and one for bids for negative balancing energy) for each mFRR MTU, that shall contain all the available standard mFRR balancing energy product bids submitted by the participating TSOs:

   (a) the positive common merit order list shall contain all the available standard mFRR balancing energy product bids for positive balancing energy submitted by the participating TSOs and shall be sorted in ascending order of price;

   (b) the negative common merit order list shall contain all the available standard mFRR balancing energy product bids for negative balancing energy submitted by the participating TSOs and shall be sorted in descending order of price.

6. The two common merit order lists described in Article 10(5) shall be used for scheduled activation.

7. For the direct activation, the two common merit order lists of Article 10(5) remain with all the available and not yet activated direct activatable bids submitted by each participating TSO.

8. The common merit order lists of Article 10(5) shall be used in the direct activation, continuously updated and sorted based on the following criteria:

   (a) the positive common merit order list shall contain all the available direct activatable bids for positive balancing energy submitted by the participating TSOs and sorted in ascending order of price;

   (b) the negative common merit order list shall contain all the available direct activatable bids for negative balancing energy submitted by the participating TSOs and sorted in descending order of price.

9. All available standard mFRR balancing energy product bids submitted to the mFRR-Platform by the participating TSOs shall be used in the common merit order lists for the activation.

Article 11
Description of the optimisation algorithm

1. The inputs to the optimisation algorithm for the scheduled activation are:

   (a) the two common merit order lists in accordance with Article 10(5);

   (b) the mFRR demands to be satisfied by scheduled activation in accordance with Article 3(5);

   (c) the mFRR balancing border capacity limits, as output of the CMF, determined in accordance with Article 4(2).

2. The inputs to the optimisation algorithm for the direct activation are:

   (a) in case of positive mFRR demand, the upward common merit order list in accordance with Articles 10(8) and 10(9)(a) and the mFRR positive demands to be satisfied by the direct activation;

(b) in case of negative mFRR demand, the downward common merit order list in accordance with Articles 10(8) and 10(9)(b) and the mFRR negative demands to be satisfied by the direct activation;

(c) the mFRR balancing border capacity limits, as output of the CMF, determined in accordance with Article 4(2).

3. The objective functions of the optimisation algorithm are:

(a) First priority: maximise the economic surplus for a given set of standard mFRR balancing energy product bids and mFRR balancing energy needs;

(b) Second priority: minimise the amount of manual frequency restoration power exchange on each mFRR balancing border.

4. The constraints of the optimisation algorithm are:

(a) the mFRR power balance equation of each bidding zone or LFC area must be satisfied, meaning that the sum of cross-zonal manual frequency restoration power interchanges, the standard mFRR balancing energy product bids activated and the satisfied mFRR demand is equal to zero;

(b) the sum of all manual frequency restoration power interchanges of all bidding zones or LFC areas of the participating TSOs must be zero;

(c) the mFRR balancing border capacity limits determined in accordance with Article 4;

(d) constraints related to indivisibility, technical and economic links between bids as defined in Article 7(2)(a).

5. The outputs of the optimisation algorithm are:

(a) the manual frequency restoration power interchange on each mFRR balancing border as defined in Article 147 of the SO Regulation;

(b) the selected standard mFRR balancing energy product bids that shall be activated by the TSO;

(c) the volume of satisfied mFRR balancing energy demands;

(d) the total manual frequency restoration power interchange of each LFC area or bidding zone, being the sum of the manual frequency restoration power interchange on the mFRR balancing borders of the LFC area or bidding zone resulting from the mFRR-Platform, pursuant to paragraph (a);

(e) the prices for mFRR balancing energy determined using the methodology developed in accordance with Article 30(1) of the EB Regulation;

(f) the prices for cross-zonal capacity used for the exchange of standard mFRR balancing energy products determined using the methodology developed in accordance with Article 30(3) of the EB Regulation.

6. For the purposes of the optimisation, each mFRR balancing border has a mathematically defined negative and positive direction for the manual frequency restoration power interchange.

7. Participating TSOs may apply in the algorithm the rule for paradoxical rejection of bids, which are the bids whose bid price is equal or below/above the cross-border marginal price, but are fully or partly rejected, if such rejection is necessary on the following grounds:

   (a) acceptance of such bid would increase/decrease the cross-border marginal price above/below the bid price;

   (b) paradoxical rejection of such bid is necessary for the algorithm to find a feasible solution;

   (c) paradoxical rejection of such bid is necessary for the algorithm to satisfy more inelastic mFRR demand.

   The paradoxical rejection of indivisible bids shall be preferred over the paradoxical rejection of indivisible bids. If applied, the rules for paradoxical rejection of bids shall be published in the description of the algorithm by the TSO.

Article 12
Designation of entity

1. Each member TSO of the mFRR-Platform is accountable towards its national regulatory authority and its market participants for the execution of the cross-border mFRR activation process in accordance with this mFRRIF.
2. For the operation of the mFRR-Platform, all TSOs shall designate one TSO to perform the AOF and the TSO-TSO settlement function and another TSO to perform the CMF. In case other balancing platforms have such function, the CMF shall be the same across these platforms and shall be operated by the same TSO, if the same obligation is imposed in the relevant implementation framework of each platform.
3. The TSOs referred to in paragraph 2 proposed to be designated in accordance with Article 20(4) of the EB Regulation are:

   (a) Amprion GmbH to perform the AOF and TSO-TSO settlement function; and

   (b) ČEPS a.s. to perform the CMF.

4. The entities designated to perform the functions shall be acting for the benefit and on behalf of all member TSOs of the mFRR-Platform. They shall fulfil their tasks in accordance with the objectives of the EB Regulation, this mFRRIF, the contractual framework, the steering committee decisions and the operational procedures in accordance with Article 14(4)(a).
5. Each entity designated to perform one or more functions specified in paragraph 2 shall:

   (a) perform its tasks in a cost-efficient way;

   (b) keep, in its internal accounting, separate accounts for all related activities and for the purposes of the cost reporting and sharing in accordance with Article 19 to prevent cross-subsidiation;

   (c) keep information gained through the operation of the mFRR-Platform confidential and guarantee non-discriminatory treatment of information offering any economic advantage for other parts of their commercial business;

(d) make the mFRR-Platform's information available to all member TSOs at all times to allow all member TSOs to fulfil the transparency and reporting obligations according to Article 13;

(e) keep records to provide an accurate, complete, up-to-date and accessible reporting of all activities in case of audits by one or more member TSOs;

(f) duly coordinate with all member TSOs and the other entities performing the functions, notably in the case of dispute resolution; and

(g) duly coordinate in case of termination of the designation to ensure continuity of the mFRR-Platform implementation and operations at all times.

6. For the avoidance of doubt, the designated entities may contract third parties for executing supporting tasks, subject to the agreement of the steering committee.

Article 13
Transparency and reporting

1. All member TSOs shall monitor, evaluate and report the following aspects of implementation and operation of the mFRR-Platform at least on a yearly basis. The common report shall be published by ENTSO-E on its website and reported to regulatory authorities:

   (a) the implementation progress and roadmap in accordance with Article 5;

   (b) the usage of elastic mFRR demand pursuant to Article 3(4), including:

      (i) an assessment by TSOs if the principle in Article 3(4)(d) was complied with;

      (ii) situations where elastic demand was satisfied and to which degree the elastic demand was fulfilled and the influence of satisfying elastic demand on the CBMP;

      (iii) the frequency of elastic demands setting the cross-border marginal price;

   (c) the amount of mFRR balancing energy requested by each participating TSO in relation to the total volume of balancing energy pursuant to Article 29(12) of the EB Regulation;

   (d) the frequency and volume of deviations between the activation of bids by each participating TSO and the selection of bids by the AOF pursuant to Article 29(5) of the EB Regulation;

   (e) the total volume of paradoxically rejected bids separately for divisible and indivisible bids;

   (f) aggregated information and detailed statistics on the bids which were declared as unavailable by TSOs in accordance with Article 9;

   (g) the impact of scheduled counter-activations on balancing energy prices and on the efficient functioning of the mFRR Platform and intraday market;

   (h) the availability of cross-zonal capacity for the mFRR exchange on the platform;

   (i) the results of the survey conducted in accordance with Article 16(2)(a).

2. If the above mentioned report identifies inefficiencies or harmfulness, TSOs should include in a report the recommendation on how to deal with identified issues and where relevant, develop a proposal for an amendment to this mFRRIF and submit it for approval.

3. Three years after the deadline for the implementation of the mFRR-Platform pursuant to Article 5(3)(b), all TSOs shall evaluate the outcome of monitoring the impact of scheduled counter-activations pursuant to paragraph 1(g). This evaluation should lead to a recommendation by TSOs for keeping or preventing scheduled counter-activations. Where the recommendation is to prevent scheduled counter-activations, all TSOs shall develop a proposal for an amendment to this implementation framework and submit it for approval. The amendment shall specify how scheduled counter-activations will be prevented in the mFRR platform.

4. Three years after the deadline for the implementation of the mFRR-Platform pursuant to Article 5(3)(b), all TSO shall publish a study on rejection of bids in the AOF of the mFRR-Platform focusing on the inefficiencies of rejection of bids due to maximum bid size (e.g. if different maximum bid sizes have an effect on the efficiency of the algorithm).

5. All member TSOs shall conduct an annual public stakeholder workshop to report on implementation and operation of the mFRR-Platform. The first workshop shall take place at the latest 6 months after first approval of this mFRRIF.

6. All member TSOs shall publish the relevant information stemming from this mFRRIF in a commonly agreed harmonised format at least through the ENTSO-E central information transparency platform established pursuant to Article 3 of Regulation (EU) No 543/2013 and Article 12 of the EB Regulation.

7. After the implementation of the CMF in accordance with Article 4(6), all member TSOs shall submit to regulatory authorities and ACER a report on the assessment of the effectiveness and efficiency of the currently used designation setup including multiple entities in accordance with Article 12. In case other balancing platforms have a cross-platform function such as the CMF, this part of the report shall be compiled with the respective assessments of the other platforms. This report shall be submitted every second year. It can be submitted together with the report pursuant to Article 59(2)(a) of the EB Regulation. The steering committee shall coordinate the establishment of the report.

8. The assessment referred to in paragraph 7 shall include indicators reflecting at least:

   (a) the availability of the mFRR-Platform;

   (b) the incidents during the operations of the mFRR-Platform with a specific assessment of interoperability incidents between the different entities performing the functions; this shall also include a list of incidents in the operation of the functions and the application of back-up and fall-back procedures, including the reasoning for their occurrence and the applied or anticipated remedies to prevent their reoccurrence in the future;

   (c) identification of problems related to implementation and operation of the mFRR-Platform;

   (d) recommendations for further development of the mFRR-Platform.

Article 14
Governance and decision-making process

1. The rules concerning the governance and operation of the mFRR-Platform shall ensure that no connecting TSO benefits from unjustified economic advantage through the participation in the mFRR-Platform.

2. The mFRR-Platform has a two-level governance structure: the steering committee and the expert group. The steering committee shall be the decision-making body. The expert group shall be the expert body of the mFRR-Platform, shall prepare background materials for the steering committee and shall evaluate and propose concepts in relation to the implementation of the mFRR-Platform.

3. Each member TSO of the mFRR-Platform shall appoint at least one regular representative to the steering committee and at least one regular representative to the expert group of the mFRR-Platform and, where applicable, to the cross-platform expert group according to paragraph 5. The member TSOs shall aim to make unanimous decisions. Where unanimity cannot be reached, qualified majority voting according to this Article shall apply.

4. The steering committee shall:

   (a) organise the management of the implementation and the operation of the mFRR-Platform; this shall include the establishment and amendment of operational procedures;

   (b) take binding decisions according to the decision-making principles pursuant to paragraphs 7 to 9;

   (c) organise an operational committee which shall decide on day-to-day operational situations and supervise tasks related to the incident management as laid down in the operational procedures;

   (d) establish the mFRR-Platform expert group. It may also establish further expert groups or merge the mFRR-Platform expert group with other expert group(s). In such event, the steering committee shall determine the composition, the modalities of the functioning and the dedicated tasks of such new expert group;

   (e) monitor the implementation of its decisions;

   (f) meet regularly;

   (g) provide regulatory authorities and ACER with conclusions and findings of the meetings within two weeks unless they invite regulatory authorities and ACER to the meetings as observers. This is without prejudice to the regulatory authorities' and ACER's right to request information from TSOs pursuant to the applicable national law or Article 3(2) Regulation (EU) 2019/942;

   (h) coordinate the establishment of the annual work programme to be provided by all member TSOs to all regulatory authorities and ACER in accordance with Article 15; and

   (i) coordinate the establishment of the report on the effectiveness and efficiency to be provided by all member TSOs to all regulatory authorities and ACER in accordance with Article 13.

   In case of a joint steering committee, paragraph 6 shall apply.

5. In case other balancing platforms have a cross-platform function such as the CMF, the steering committee shall be the same across these platforms, if the same obligation is imposed in the relevant implementation framework for these platforms. In such case, the steering committee shall be a joint steering committee for the relevant platforms, and all references to the steering committee in this mFRRIF shall be understood as referring to the joint steering committee. The joint steering committee shall be supported by an additional expert group for all cross-platform functions including at least the CMF and all cross-platform issues. The expert group on cross-platform functions and issues shall prepare background materials for the joint steering committee and shall evaluate and propose concepts in relation to the implementation of the cross-platform functions and any other cross-platform related content.

6. The joint steering committee shall be responsible for the tasks referred to in paragraph 4, except points (a), (b) and (c). In addition, it shall:

   (a) organise the management of the implementation and the operation of all involved European platforms for the exchange of balancing energy and for the imbalance netting process; this shall include the establishment and amendment of operational procedures;

   (b) take binding decisions on any matter related to the AOF and the TSO-TSO settlement function of the mFRR-Platform according to the decision-making principles pursuant to paragraphs 7 to 9;

   (c) take binding decisions on any matter related to the cross-platform functions and cross-platform issues by voting of all member TSOs of all involved European platforms for the exchange of balancing energy and for the imbalance netting process by applying the decision-making principles pursuant to paragraphs 7 to 9;

   (d) organise a joint operational committee for the operation of all involved European platforms for the exchange of balancing energy and for the imbalance netting process; the joint operational committee shall decide on day-to-day operational situations and supervise tasks related to the incident management as laid down in the operational procedures.

7. Decisions leading to a proposal for an amendment of this mFRRIF or the amendment of the methodologies submitted by all TSOs in accordance with Articles 29, 30 or 50 of the EB Regulation shall be made according to the following process:

   (a) member TSOs' decision: all member TSOs shall approve in advance a proposal to be sent to all TSOs for decision;

   (b) all TSOs' decision: shall be subject to the approval of all TSOs pursuant to the voting principles of Article 4(3) of the EB Regulation, where 'all TSOs' includes both all member TSOs in the framework of the steering committee of the mFRR-Platform and non-member TSOs and this decision-making process is independent from the member TSO's decision-making process.

8. Decisions concerning the mFRR-Platform not leading to a proposal for an amendment of this mFRRIF or the amendment of the methodologies pursuant to Articles 29, 30 or 50 of the EB Regulation relative to mFRR but affecting all member TSOs shall be subject to approval of all member TSOs.

9. Decisions concerning the mFRR-Platform not leading to a proposal for an amendment of this mFRRIF and only affecting a geographical area of several member TSOs smaller than the geographical area of all member TSOs shall be subject to approval of the member TSOs of the concerned geographical area.

10. In case of decisions according to Articles 14(3)(a), 14(4) and 14(5), each member TSO of the concerned region is expected to take part in the decision-making process. The quorum for initiating a decision-making process is a majority (50 % + 1) of the member TSOs that are present or represented through another member TSO participating in the decision-making process.

11. The member TSOs shall implement a decision-making process, which ensures effective decision making with the aim to make decisions unanimously. Where unanimity cannot be reached, qualified majority voting shall apply.

12. Decisions according to Articles 14(3)(a) and 14(4) where no consensus is reached shall , pursuant to the voting principles of Article 4(3)of the EB Regulation, require a majority of:

(a) member TSOs representing at least 55 % of the TSOs' countries concerned and present or represented in accordance with Article 14(6); and

(b) member TSOs representing countries comprising at least 65 % of the population of countries concerned and present or represented in accordance with Article 14(6).

13. Decisions in accordance with Article 14(5) where no consensus is reached shall, pursuant to the voting principles of Article 4(4) of the EB Regulation, require a majority of:

(a) member TSOs representing at least 72 % of the member TSOs' countries of the concerned region; and present or represented according to Article 14(6); and

(b) member TSOs representing countries comprising at least 65 % of the population of member TSOs' countries of the concerned region and present or represented according to Article 14(6).

14. Decisions in accordance with Article 14(5) in relation to regions concerned composed of five member states and third countries or less shall be decided based on consensus.

15. Voting on steering committee decisions can be made in physical meetings, conference calls or by circular resolution via e-mail.

Article 15
Annual work programme

No later than 30th September of each year, all member TSOs shall provide an annual work programme for at least the two subsequent years to all regulatory authorities and ACER that describes the projects aiming at implementing the mFRR-Platform and all related tasks. For each project, the document shall indicate the scope, the interdependency with other projects, including the interdependency with other European balancing platforms as regards cross-platform functions such as the CMF and other cross-platform issues, the requested investments including, if necessary, research and development activities, the expected benefits, the budget, the timeline for implementation including a clear assignment of responsibilities and deadlines to the involved parties, especially separating the involvement of the different entities performing the functions and other parties such as TSOs, as well as identified risks and possible mitigation measures. The steering committee shall coordinate the establishment of the annual work programme.

Article 16
Dispute resolution

1. In the event of a dispute, a dispute notice shall be submitted in written to the steering committee by the parties involved. The dispute notice shall include at least a description of the dispute, the involved member TSOs or entities performing the functions, the claims raised and their legal grounds and a proposal for settlement if available.

2. The settlement process of arising disputes shall be as follows:

(a) the steering committee shall appoint without undue delay amongst its representatives a person responsible for the amicable settlement procedure without undue delay.

(b) should no amicable settlement be reached within one month or within a reasonable time agreed upon by the involved parties, disputing member TSOs or entities performing the functions, after agreement by the steering committee may ask the relevant regulatory authorities and/or ACER

for guidance, should the dispute directly concern regulatory issues if it is in compliance with their competences under the law, which an amicable settlement may take into account, or refer the dispute to mediation.

(c) in case none of the above led to the settlement of the dispute, the dispute shall be settled either by arbitration or by court.

3. The outcome of any of the above measures shall be binding upon the disputing member TSOs or entities performing the functions.

4. The dispute resolution process shall not preclude the steering committee from applying for interim or conservatory measures or any injunctive relief. The contractual framework may further detail the dispute resolution process set out in this paragraph.

Article 17
Cooperation framework

1. In order to ensure efficient and effective implementation and operation of the mFRR-Platform, each member TSO shall set up a contractual framework applicable to all member TSOs. Under the contractual framework, each member TSO shall adhere to at least the following high level principles:

(a) not to undertake actions which may be detrimental to the operation of the mFRR-Platform functions as defined in the contractual framework;

(b) to assist each other and cooperate among themselves in case of an investigation regarding the mFRR-Platform by a competent regulatory authority provided that it is allowed under the applicable national law or laws;

(c) to apply the principles of equal treatment, proportionality and non-discrimination towards all other member TSOs; and to perform its obligation in compliance with laws and regulations, including this mFRRIF.

2. In their contractual framework, all member TSOs shall clearly allocate the roles and responsibilities of the member TSOs, the designated entities in accordance with Article 12, notably the obligations of reporting and exchange of information in accordance with Article 13. This shall also define liabilities arising from any actions or omissions of the signing parties, being the member TSOs or the entities designated to perform the functions, especially in case of failure of those entities to comply with their obligations such as the breaching of deadlines.

3. The contractual framework shall include the conditions for renewal and termination, as well as in case of termination or hand-over of one designated entity to another, specific obligations on the entities designated to perform the functions to ensure a smooth transition and continuity of the mFRR-Platform at all times. Such conditions shall include clear timelines and responsibilities for the entities performing the functions, deadlines for early involvement of the steering committee, and clearly defined liabilities for the cases of not meeting the timelines or the obligations.

4. The contractual arrangements may be amended following a decision of the steering committee including the renewal or termination of the contractual relations with the entities designated to perform the functions of the mFRR-Platform as well as the designation of another entity following a respective amendment of this mFRRIF.

5. All member TSOs shall own and govern the IT solutions including the intellectual property to operate the mFRR-Platform functions.

6. All member TSOs shall define and establish operational procedures to be approved by the steering committee in accordance with Article 14(4)(a) with a specific emphasis on the coordination need between different entities performing different functions of the mFRR-Platform. These procedures shall at least cover day-to-day operations, the incident resolution processes, fall-back and back-up procedures including communication procedures, data processing and validation.

7. In case a request from one or several regulatory authorities made in compliance with the applicable national law or laws or ACER made in compliance with Article 3(2) Regulation (EU) 2019/942 is received by one or several member TSOs or by one or several TSOs designated to perform the platform's functions, these TSOs shall immediately inform all member TSOs via the steering committee of the content of such request. All member TSO shall cooperate to respond adequately, consistently and promptly to a request for information received in relation to fulfilment of the obligations of the mFRRIF. However, requests for information submitted by regulatory authorities can only be disclosed provided that this is allowed under the applicable national law.

Article 18
Back-up principles

1. All member TSOs shall ensure that for all day-to-day operational steps, back-up processes and communication procedures are in place, regularly tested, properly documented as well as involved parties being trained regularly. This shall include back-up processes and communication procedures between the designated entities performing different functions of the mFRR-Platform.

2. All member TSOs shall ensure that the hosting and communication infrastructure of the designated entities performing the platform's functions shall be equipped with back-up solutions enabling its operations in case of outages or technical incidents.

Article 19
Categorisation of costs and detailed principles for sharing the common and regional costs

1. The costs of establishing, amending and operating the mFRR-Platform shall be broken down into:
   (a) common costs resulting from coordinated activities of all member TSOs in the mFRR-Platform;
   (b) regional costs resulting from activities of several but not all member TSOs in the mFRR-Platform;
   (c) national costs resulting from activities of the participating TSOs of the mFRR-Platform.

2. Common costs shall include costs resulting from the steering committee decisions on proposals related to:
   (a) common costs for establishing or amending the mFRR-Platform:
      (i) implementation of the mFRR-Platform or new functionalities in the AOF which have an impact on the intended or unintended exchange of energy and which is for the benefit of all member TSOs;

(ii) implementation of new functionalities in the TSO-TSO settlement function which have an impact on the TSO-TSO settlement;

(iii) commissioning of joint studies for the benefit of all member TSOs;

(iv) costs required for external support to the project and the project management office;

(b) common costs for operating the mFRR-Platform:

(i) operational costs related to the operation of the AOF which are agreed as common costs by member TSOs in accordance with the decision-making process according to Article 14;

(ii) operational costs related to the operation of the TSO-TSO settlement function which are agreed as common costs by member TSOs in accordance with the decision-making process according to Article 14.

3. The common costs for establishing or amending the mFRR-Platform in accordance with Article 15(2)(a) shall be shared among the member TSOs in accordance with Article 15(15) and in accordance with the following principles set out by Article 23 of the EB Regulation:

(a) one eighth of common costs shall be divided equally between member states and third countries whose TSOs are member TSOs;

(b) five eighths of common costs shall be divided proportionally to the consumption of member states and third countries whose TSOs are member TSOs;

(c) two eighths of common costs shall be divided equally between member TSOs.

4. The common costs of operating the mFRR-Platform in accordance with Articles 15(2)(b) and 15(5) shall not be borne by member TSOs that are not participating TSOs in the mFRR-Platform.

5. The common costs for operating the mFRR-Platform in accordance with Article 15(2)(b) shall be shared among the participating TSOs in accordance with Article 15(17) and in accordance with the following principles set out by Article 23 of the EB Regulation:

(a) one eighth of common costs shall be divided equally between member states and third countries whose TSOs are participating TSOs;

(b) five eighths of common costs shall be divided proportionally to the consumption of member states and third countries whose TSOs are participating TSOs;

(c) two eighths of common costs shall be divided equally between participating TSOs.

6. Regional costs shall be borne by member TSOs of the concerned region and consist of:

(a) regional costs for establishing or amending the mFRR-Platform:

(i) implementation of new functionalities in the AOF which have an impact on the intended or unintended exchange of energy and which are applicable only by the member TSOs of the concerned region;

(ii) implementation of new functionalities in the TSO-TSO settlement function which have an impact on the TSO-TSO settlement of the member TSOs of the concerned region;

(iii) commissioning of joint studies performed for the member TSOs of a concerned region.

(b) regional costs of operating the mFRR-Platform:

(i) operational costs related to the operation of the AOF which are agreed as regional costs by member TSOs in accordance with the member TSOs' decision-making process according to Article 14;

(ii) operational costs related to the operation of the TSO-TSO settlement function which are agreed as regional costs by member TSOs in accordance with the decision-making process according to Article 14.

7. The regional costs for establishing or amending the mFRR-Platform in accordance with Article 15(6)(a) shall be shared among the member TSOs of the concerned region according to the following principles set out by Article 23 of the EB Regulation:

(a) one eighth of regional costs shall be divided equally between member states and third countries whose TSOs are member TSOs of the concerned region;

(b) five eighths of regional costs shall be divided proportionally to the consumption of member states and third countries whose TSOs are member TSOs of the concerned region;

(c) two eighths of regional costs shall be divided equally between member TSOs of the concerned region.

8. The regional costs for operating the mFRR-Platform in accordance with Article 15(9) shall not be borne by member TSOs that are not participating TSOs in the mFRR-Platform.

9. The regional costs for operating the mFRR-Platform in accordance with Article 15(6)(b) shall be shared among the participating TSOs of the concerned region in accordance with Article 15(17) and in accordance with the following principles set out by Article 23 of the EB Regulation:

(a) one eighth of regional costs shall be divided equally between member states and third countries whose TSOs are participating TSOs of the concerned region;

(b) five eighths of regional costs shall be divided proportionally to the consumption of member states and third countries whose TSOs are participating TSOs of the concerned region;

(c) two eighths of regional costs shall be divided equally between participating TSOs of the concerned region.

10. National costs shall be the costs for using the mFRR-Platform, which consist of the costs of development, implementation, operation and maintenance of technical infrastructure and procedures as well as for the settlement process.

11. Each member TSO shall bear its own national costs and is solely responsible (i.e. no joint and several liability) for the due payment of all the costs related to the technical infrastructure necessary for the successful usage of the mFRR-Platform.

12. The cost sharing principle may apply to costs incurred since 1 January 2018, and shall apply to costs incurred after the approval of this mFRRIF.

13. For the avoidance of doubt, any costs incurred before 1 January 2018 shall not be considered as historical costs.

14. Each member TSOs shall pay its share of costs pursuant to Articles 15(2)(a)(i) and (ii) also retrospectively in accordance with Article 15(12).

15. When sharing the common and regional costs for establishing and amending the mFRR-Platform according to Articles 15(3) and 15(7), the TSO's share of the costs of the member TSOs shall consider only the member TSOs appointed in the LFC area operational agreement as responsible for implementing and operating the mFRP in this LFC area according to Article 143(4) of the SO Regulation. For the avoidance of doubt, the member TSOs that are not appointed as responsible for implementing and operating the mFRP shall not have to bear costs related to Articles 15(3)(c) and 15(7)(c).

16. In case several member TSOs are active in a Member State, the Member State's share of the costs shall be distributed among those member TSOs proportionally to the consumption in the member TSOs' monitoring areas.

17. When sharing the common and regional costs for operating the mFRR-Platform in accordance with Articles 15(5) and (9), the consumption share of the costs of a participating TSO shall consider respectively the consumption of the member TSOs which appointed the participating TSO to perform the mFRP according to Article 143(4) of the SO Regulation.

Article 20
Framework for harmonisation of terms and conditions related to the mFRR-Platform

1. Terms and conditions pursuant to Article 18 of the EB Regulation remain a responsibility of each TSO but have to respect a framework for harmonisation pursuant to Article 20(3)(f) of the EB Regulation.

2. The framework for harmonisation shall take into account differences between TSOs applying central and self-dispatching models and respect the following process:

   (a) all TSOs shall continuously evaluate the terms and conditions for BSPs in order to identify harmonisation needs. A stakeholder survey shall be organised every ~~year~~36 months and no earlier than six months following the date of the preceding ACER decision on the common harmonisation proposal, with the first survey occurring during the first operational year of the mFRR-Platform. This survey shall support the identification by all TSOs of a short list of prioritised harmonisation needs with close involvement of all relevant regulatory authorities;

   (b) in case justified harmonisation needs were identified, all TSOs shall then identify harmonisation options for each prioritised harmonisation need with close involvement of stakeholders and regulatory authorities;

   (c) all TSOs shall publicly consult the harmonisation options identified under Article 20(2)(b) of this mFRRIF, if any, with the stakeholders for a period of two months and no later than 9 months after the stakeholder survey is launched in accordance with Article 20(2)(a) of this mFRRIF;

   (d) all TSOs shall evaluate the public consultation results and develop a common harmonisation proposal for the identified issues, if any, to harmonise terms and conditions for BSPs~~. The proposal shall also include the necessary implementation time for the amendment of terms and conditions for BSPs~~;

   ~~(e)~~ all TSOs shall submit an amended ~~the~~ mFRRIF ~~shall be amended with~~ including the common harmonisation proposal as an Annex in accordance with Article 6(3) of the EB Regulation ~~;~~

~~(f) the implementation of changes stemming from an amendment process of the mFRRIF pursuant to (e) shall be handled at national level in the national terms and conditions for BSPs, which shall specify which changes are needed and define the implementation timeline;~~

(e) ~~all TSOs shall submit an amended mFRRIF including the common harmonisation proposal~~ no later than 36 months after the mFRR-Platform becomes operational. The next mFRRIF amendment proposal ~~including the common harmonisation proposal~~ shall be submitted no later than 36 months after the previous mFRRIF amendment, in case justified harmonisation needs were identified;~~.~~

~~(g)~~(f) each relevant TSO shall implement the provisions on the harmonisation of Terms and Conditions for Balancing Service Providers according to Article 18(5) of the EB Regulation as set out in Annex I by proposing an amendment of the terms and conditions for BSPs to its relevant NRA where necessary no later than one (1) year after the relevant ACER decision;

Article 21
Publication and implementation of this mFRRIF

1. The TSOs shall publish this mFRRIF without undue delay pursuant to Article 7 of the EB Regulation after a decision has been made by the European Union Agency for the Cooperation of Energy Regulators in accordance with Articles 5(7) and Article 6(2) of the EB Regulation.
2. The TSOs shall implement the mFRRIF in accordance with Article 5.
3. One month before the deadline for the implementation of the mFRR-Platform pursuant to Article 5(3)(b), all TSOs shall publish a detailed description of the optimisation algorithm pursuant to Article 12(3)(k) of the EB Regulation. This description shall ensure that the interested public is able to understand the functioning of the algorithm. All TSOs shall keep this document updated.

Article 22
Language

The reference language for this mFRRIF shall be English. For the avoidance of doubt, where TSOs need to translate this mFRRIF into their national language(s), in the event of inconsistencies between the English version published by 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 mFRRIF to their relevant regulatory authorities.

Annex 1: All TSOs Common Harmonisation Proposal

18 December 2025

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Title 1
General provisions

Article 1
Subject matter and scope

1. The Terms & Conditions (T&Cs) for a Common Harmonisation Proposal (CHP) contains a framework for harmonisation of T&Cs related to Frequency Restoration Process (FRR) to be further specified following the process as defined in the Automatic Frequency Restoration Process (aFRR) Implementation Framework (IF) and Manual Frequency Restoration Process (mFRR) IF. Besides general provisions, it specifies six (6) areas for harmonisation:
   a. English Publication of T&Cs;
   b. Permission of English communication between TSOs and Balancing Service Providers (BSPs);
   c. Harmonisation of FRR Prequalification Process;
   d. Switching of reserve providing units (RPUs) between BSPs;
   e. Re-Prequalification; and
   f. Data exchange standards.
2. The provisions of this CHP shall apply to the setup of TSO-TSO model, where the BSP provides balancing services to its reserve connecting TSO.
3. Grid prequalification shall not be considered part of the FRR Prequalification Process. The reserve connecting TSOs or the DSO may require grid prequalification ahead of finishing or during the FRR Prequalification Process. The reserve connecting TSOs or the DSO may take into consideration extensions from grid prequalification.
4. TSOs may delegate all or part of any tasks under this IF to a third party. The reserve connecting TSO shall remain responsible for ensuring compliance with the obligations in this CHP. Such assignment shall be limited to tasks and obligations executed at national level. The limitations to the assignment should not lead to unnecessary changes to the existing national arrangements.

Article 2
Definitions and interpretation

1. Terms used in this document shall have the meaning of the definitions included in Article 2 of the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (EB Regulation), of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (SO Regulation), of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management, of the Regulation (EU) 2019/943, of the Directive (EU) 2019/944 of 5 June 2019 on common rules for the internal market for electricity and of the Commission Regulation (EU) 543/2013 of 14 June 2013 on submission and publication of data in electricity markets.
2. In addition, unless the context requires otherwise, the following terms shall have the meaning below:
   a. ‘Activation test' means a test whereby the reserve connecting TSO sends an activation signal to ensure that the RPU or RPG is capable of being activated and meets the product

requirements.

b. 'Ex-post verification' means the evaluation by the reserve connecting TSO of the ability of a RPU or RPG to provide the relevant service based on the monitoring activities according to the Article 158(5) of the SO Regulation.

c. 'Re-prequalification' means the reassessment of qualification as defined in Article 159(6) of the SO Regulation, if at least one of the conditions of Article 10 (1) is met.

d. 'Baseline' means a counterfactual reference about the electrical quantities that would have been withdrawn or injected if there had been no activation of any balancing services.

e. 'Baselining method' means the formula for the calculation of a specific baseline or the set of data constituting the specific baseline.

~~f.~~ 'Controllable unit' or 'CU' means a single power-generating module and/or demand unit or an energy storage module, when these units or an ensemble of these units are located behind the same [metering] point and these units are commonly controlled.

g. "RPU" means a reserve providing unit as defined in Article 3(2)(10) of SO Regulation.

h. "RPG" means a reserve providing group as defined in Article 3(2)(11) of SO Regulation.

3. In this CHP, unless the context requires otherwise:

a. the singular indicates the plural and vice versa;

b. the table of contents and headings are inserted for convenience only and do not affect the interpretation of the CHP; and

c. any reference to legislation, regulations, directive, order, instrument, code or any other enactment shall include any modification, extension or re-enactment of it then in force.

Article 3
English Publication of Terms and Conditions

1. Each reserve connecting TSO shall, in addition to the version(s) as approved by the relevant NRA, publish a non-legally binding English version of T&Cs for BSPs established pursuant to Article 18(1)(a) of the EB Regulation. The English version shall be a full version of the T&Cs, but not-necessarily encompassing the links to other documents included in the translated version. The reserve connecting TSO shall publish the version in English via the ENTSO-E Transparency Platform, via the TSO's website and, if applicable, a joint-TSO website. Each relevant TSO shall keep the English version up-to-date.

Article 4
Permission of English communication between TSOs and BSPs

1. Each reserve connecting TSO shall allow written and verbal working-level communication in English between BSPs and TSOs. This requirement shall not apply to legally binding documents.

2. Communication with TSO's control room operators shall be in a national language, if not specified otherwise.

Title 2
Harmonisation of FRR Prequalification

Article 5
Harmonised FRR Prequalification Process

1. The prequalification process, pursuant to Article 159 of the SO Regulation, for a standard product for mFRR balancing energy, according to Article 25(1) of the EB Regulation, shall follow the Harmonised FRR Prequalification Process for RPUs and RPGs. The prequalification process for RPUs and RPGs connected to a DSO network shall take into account the provisions of Article 182 of SO Regulation.
2. The Harmonised FRR Prequalification Process shall be defined by the following mandatory steps:
    a. Application submission: Submission of an FRR prequalification application by the aspirant BSP to the reserve connecting TSO, providing an overview of the information relevant to the provision of the balancing service by the respective RPUs and RPGs. The application shall contain the information to be specified by the reserve connecting TSO in accordance with Article 7.
    b. Confirmation of application: The reserve connecting TSO shall confirm whether the application submitted in accordance with Article 5(2)(a) is complete within four (4) weeks of its submission. In exceptional cases, the reserve connecting TSO may extend the confirmation process up a maximum of eight (8) weeks in accordance with Article 159 of the SO Regulation and notify the extension to the aspirant BSP.
    c. Technical evaluation: Within 3 months after the reserve connecting TSO confirms the completion of the application according to Article 5(2)(b), the reserve connecting TSO, in coordination with the aspirant BSP, shall evaluate the technical characteristics of the application in comparison with the corresponding FRR requirements of Article 158 of the SO Regulation. The reserve connecting TSO shall then decide whether the RPUs or RPGs under prequalification meets the criteria for prequalification as established under Article 159 of the SO Regulation. During the technical evaluation, without prejudice to Article 5 (3), the reserve connecting TSO shall request that the BSP demonstrates by an activation test or an ex-post verification the ability of the RPU or RPG to provide the relevant balancing service. A communication test shall be carried out, within the technical evaluation timeline, according to Article 158(1)(e) of the SO Regulation, and may be included in the activation test. The reserve connecting TSO shall notify its decision to the BSP without undue delay. Upon notification by the reserve connecting TSO of a negative result of the technical evaluation, the BSP can be requested to repeat the activation tests or provide supplementary information within the timeline established in Article 5 (4).
    d. Approval of Prequalification: The reserve connecting TSO shall approve the prequalification of the RPU or RPG following the successful completion of the proceedings of Article 5(2)(c), respecting the timeline established under Article

5(4).

3. If the information provided under any of the steps referred to in Article 5(2) is deemed unsuitable for the requirements of the reserve connecting TSO, or is rejected by the reserve connecting TSO due to errors or missing information, the BSP shall be required to submit additional or corrected information to supplement the application. Upon notification by the TSOs, the BSP shall provide the additional or corrected information within four (4) weeks in accordance with Article 159(3) of the SO Regulation. The reserve connecting TSO shall assess within four (4) weeks the updated application. The connecting TSO shall consider the application as withdrawn if the BSP fails to submit all of the requested information within the provided deadline.
4. In the event of a negative result of the technical evaluation pursuant Article 5(2)(c), the reserve connecting TSO may grant an extension to the BSP to repeat the activation test. The BSP shall submit the requested supplementary information or perform the repeated activation test requested within four (4) weeks. The reserve connecting TSO shall assess the supplementary information or/and the requested activation test within four (4) weeks following its receipt. The total duration of the extension shall not exceed nine (9) months from the date of submission of the FRR prequalification application pursuant to Article 5(2)(a). After this period, the FRR prequalification request shall be considered withdrawn by the BSP in accordance with Article 11(2)(a).
5. Provided sufficient controls and penalties are in place to incentivise the BSP to ensure the reliability of the submitted bids, a reserve connecting TSO may foresee in the national T&C for BSP to approve the prequalification of the RPU or RPG without any activation test or ex post verification, as defined in Article 5(2)(c).
6. The National Regulatory Authority (NRA) may grant a derogation from the prequalification timeline of Article 5, in order to account for the operational specificities of a TSO.

Article 6
Ex-Post Verification

1. Following the process defined in Article 5(2)(a) and Article 5(2)(b), the reserve connecting TSO may apply ex-post verification as an alternative to the activation test according to Article 5(2)(c). Prequalification with an activation test shall be considered the standard process for prequalification of an RPU or RPG.
2. A reserve connecting TSO may allow for ex-post verification for RPUs or RPGs during the first time prequalification process mentioned in Article 5(2)(b), only for participation in the balancing energy market if provided by the national T&Cs for BSPs.
3. The reserve connecting TSO may allow for ex-post verification for RPU or RPGs in one or more cases, for the balancing energy and capacity markets:
    a. Switching between BSPs according to Article 8(1); or
    b. Changing the RPU or RPG in accordance to Article 10(1)(a); or
    c. Re-prequalifying at the end of the validity period in accordance to Article 10(1)(d); or
    d. Prequalifying an identical RPU previously prequalified; or

e. Prequalifying a RPU with the same technology previously prequalified; or

f. Stipulating other cases, to be specified in the national T&Cs.

4. During ex-post verification, the RPU or RPG will have a temporary prequalification status. The temporary prequalification status will be given within the timelines of Article 6(5)(c) after the notification from the reserve connecting TSO of the start of the ex-post verification process as per Article 5(2)(c).
5. The reserve connecting TSO will conduct the ex-post verification of the RPU or RPG according to the below steps:
    a. The reserve connecting TSO will enable the RPU or RPG to participate in the corresponding market. The reserve connecting TSO may limit the volume of the RPU or RPG with temporary prequalification status participating in the market according to the reserve connecting TSO T&Cs.
    b. The reserve connecting TSO shall conduct its monitoring activities of the RPU or RPG according to the Article 158(5) of the SO Regulation after the temporary prequalification status is provided.
    c. If the ex-post verification is not finalised with a positive result within a maximum of three (3) months from the moment the temporary prequalification is issued by the reserve connecting TSO, an activation test shall be mandatory.
6. The reserve connecting TSO's T&Cs for BSPs shall further define:
    a. the verification criteria, including minimum timeframes according to the minimum requirements of the standard product;
    b. a minimum number of activations needed for ex post verification;
    c. minimum requirements regarding activation quality; and
    d. any additional requirements needed for the ex-post verification process.
7. The reserve connecting TSO may also request additional data from the BSP about the RPU or RPG, in case the reserve connecting TSO's monitoring is based on aggregated RPG data.
8. The National Regulatory Authority (NRA) may grant a derogation from ex-post verification timeline of Article 6 (5) in order to account for the operational specificities of a TSO.

Article 7
Application Submission requirements

1. The BSP shall submit the following information to the provision of the balancing service by the respective RPUs or RPGs in their application submission to the reserve connecting TSOs:
    a. The Controllable Unit (CU) information shall include the identifier of the CU, the technology type, and the control band positive/ negative and information connection point and DSO name if CU is connected to DSO grid.
    b. The confirmation by BSP of compliance of RPU or RPG with the minimum technical requirements as stipulated in the Article 158 of SO Regulation and in the national T&C for BSPs.
    c. The confirmation by BSP that the connecting DSO has been informed of the intent of the BSP to provide balancing services, if applicable.
    d. The technical concept shall include baselining method(s), and State of Charge (SoC) management in case of RPUs and RPGs assessed as limited energy reservoirs (LERs)

or energy storage according to national T&Cs.

e. The general communication requirements shall include a description of BSP and TSO communication.

2. The reserve connecting TSO may further request, by non-discriminatory treatment of the BSP, the below information to be submitted via the reserve connecting TSO respective means of submission:
   a. Fundamental BSP information that may describe the name of the BSP, the address of the company, the key contact person information, the operational contact and the settlement contact.
   b. The CU information details may further include the capacity, location of the CU, RPU/RPG owner and/or CU authorisation proof of legal title, activation dynamics, the measurement accuracy, power output, allocation point information, test reports or certificate, BSP certificate if it already exists, among other requirements based on each TSO's T&Cs.
   c. The technical requirements may further include the delivery, market type participation, redundancy requirements, combined activation of different balancing services, primary commercial purpose, handling of possible compensation and rebound-effects, energy efficiency during negative balancing provision, among other requirements based on each TSOs' national T&Cs for BSPs.
   d. The general communication requirements may further include a description of exchange and processing of measurement data, data granularity, and archive requirements. Additional data items that are not currently foreseen, where such data is deemed necessary for technical evaluation or system security requirements.
3. The reserve connecting TSOs shall check whether these criteria are met according to Article 5(2)(c).

Article 8
Switching of Reserve Providing Units between Balancing Service Providers

1. After obtaining prequalification as defined in Article 5, RPUs may be switched between different BSPs under the same TSO while retaining their prequalification status, provided that the switching complies with the harmonised conditions set out below:
   a. The communication infrastructure between BSP and RPUs of both the previous BSP and the new BSP shall be compatible;
   b. The new BSP shall have a valid qualification status as defined by Article 16 of the EB Regulation;
   c. The new BSP shall have demonstrated the ability to control an RPU of the same technology for the provision of the same service; and
   d. The RPU switching between BSPs has a prequalified capacity less than the threshold defined in the reserve connecting TSO national T&Cs for BSPs.
2. In case of fulfilling all above-mentioned conditions, the reserve connecting TSO may perform an ex-post verification of the BSP's newly added RPU, as defined in Article 6.
3. In case of non-fulfilment of at least one condition of Article 8(1), the new BSP and the reserve connecting TSO, pursuant to Article 158(1)(e) of the SO Regulation, shall decide whether a prequalification process with activation test or ex-post verification is necessary.

The timeframe shall be in accordance with Article 5(2) (c) and Article 6(5)(c).

4. The provisions of Article 7 shall remain valid for the process of switching.
5. In case the communication infrastructure between BSP and TSO has been modified to include additional data exchange, a communication test shall be conducted specifically for the newly implemented components either prior to applying the ex-post verification or as part of the activation test.
6. The switching of RPUs between BSPs, as mentioned in Article 8 (1), shall be carried out within six (6) weeks.
7. When an RPU switches from one BSP to another, the reserve connecting TSO shall determine the validity period of the prequalification status in a way that maximizes operational efficiency. This may involve retaining the validity period of the previous or adapting it to the validity period of the new RPG's prequalification status, aligned to the provisions of Article 159(6)(a), depending on which approach ensures the most efficient integration of the RPU.
8. A reserve connecting TSO may further define in the national T&Cs the process and conditions for switching RPGs from one BSP to another while retaining their prequalification status.
9. The National Regulatory Authority (NRA) may grant a derogation from the switching timeline of Article 8 (4), in order to account for the operational specificities of a TSO.

Article 9
Re-Prequalification notification and process

1. Subject to the applicable national T&Cs for BSPs, the BSP shall inform the reserve connecting TSO no later than six (6) weeks before the planned implementation date of any changes pursuant to Article 10(1) to their RPU or RPG via the reserve connecting TSO communication interface.
2. Subject to the applicable national T&Cs for BSPs, the reserve connecting TSO shall within four (4) weeks of receiving the notification pursuant to Article 9(1), assess whether re-prequalification on RPU or RPG level pursuant to Article 10(1) is required. If re-prequalification is required, the reserve connecting TSO shall formally notify the BSP of this requirement, as established under Article 5(2)(c), specifying the scope of the reassessment. Alternatively, the TSO can provide an (API) interface that allows the BSP to query the duration of a prequalification independently. The reserve connecting TSO may limit the scope of the reassessment to evaluate specifically the changes to the RPU or RPG based on the conditions being triggered under Article 10(1). The reserve connecting TSO shall decide if an activation test or an ex-post verification shall be needed according to Article 5(2)(c) under the scope of the reassessment.
3. If a re-prequalification is required pursuant to Article 10(1)(a), the BSP shall be permitted to continue providing the relevant balancing service with the unaffected part of the RPU or RPG if the minimum requirements according to Article 158 of the SO Regulation are still met. The reserve connecting TSO may limit the process of re-prequalification of an RPG when identical RPUs are added to the existing RPG to the steps in Article 5(2)(a) and Article 5(2)(b). The reserve connecting TSOs may define limits to the volume of the RPUs being added to the existing RPG in the national T&Cs.

Article 10
Conditions for Re-Prequalification

1. A BSP shall notify according to Article 9(1) the reserve connecting TSO of the implementation of any changes to their RPU or RPG upon which the reserve connecting TSO may request re-prequalification pursuant to Article 9, if at least one of the following conditions are met:
    a. The prequalified or verified capacity of the RPU or RPG changes by more than ten percent (10%) or three (3) megawatts (MW), whichever is lower, and at least 0.5 MW, compared to the prequalified capacity confirmed in the most recent prequalification;
    b. The BSP replaces or modifies the ICT system controlling the RPU or RPG in a way that may materially affect the technical performance, reliability, or efficiency of the service. The reserve connecting TSO shall define what counts as a significant modification in the national T&Cs. The BSP shall inform the reserve connecting TSO about any change in its ICT system with potential effect on the reliability and efficiency of its service provision. The reserve connecting TSO shall have the right to require the re-performance of a communication test, in accordance with Article 158(1)(e) of the SO Regulation, when the reliability of the service provision due to a significant change in the ICT system may be compromised, if defined in the national T&Cs for BSPs;
    c. Information pursuant to Article 7(1) and Article 7(2) is no longer valid;
    d. The last prequalification occurred more than five (5) years ago, or the RPU or RPG has not delivered the corresponding service in line with the service requirements of Article 158 of the SO Regulation to its reserve connecting TSO within the last twelve (12) months. If the RPU or RPG has delivered the corresponding service, the RPU or RPG may continue services without undergoing a new activation test or ex-post verification. If the reserve connecting TSO does not have the information of the service provision on RPU or RPG level, the reserve connecting TSO can request activation tests or a confirmation according to Article 7(1)(b) from the BSP as part of the re-prequalification with the aim of assessing compliance with the requirements on RPU and RPG level;
    e. Modifies an existing RPU or RPG with CUs that use a different technology compared to the RPUs or RPGs already prequalified;
    f. Further conditions may be defined in national T&C as far as duly justified and approved by the competent NRA(s).

2. The reserve connecting TSO may request a re-prequalification of a RPU or RPG if the respective RPU or RPG no longer complies with the technical service requirements under Article 158 of the SO Regulation, or causes a detrimental impact on system operation, or the situation in accordance with Article 11(1)(a) takes place. The relevant re-prequalification process will be limited to the TSOs' detected issue of the respective RPU or RPG. The reserve connecting TSO may further do an activation test to a RPU or RPG in order to maintain system security and ensure service reliability ahead of a request for re-prequalification.

Article 11
Termination of prequalification status or prequalification and re-prequalification process

1. The reserve connecting TSO may terminate the prequalification status of a RPU or RPG if one of the following conditions takes place:
    a. BSP did not deliver the corresponding service on RPU or RPG level to its reserve connecting TSO, in line with the service requirements of Article 158 of the SO Regulation or/and in line with the national T&Cs. The reserve connecting TSO may contact the BSP requiring improvement. If the BSP does not show improvement to the standards of the service requirements according to Article 158 of the SO Regulation or/and in line with the national T&Cs within three (3) months or five (5) representative activations, the condition for termination shall be deemed fulfilled; or
    b. the condition of Article 10(2) is triggered.
2. The reserve connecting TSO will consider any prequalification or re-prequalification process as withdrawn by the BSP if one of the following conditions takes place:
    a. the BSP does not finalise the prequalification or re-prequalification process pursuant to the timelines set out in Article 5 and Article 9; or
    b. the FRR qualification process takes longer than the TSO derogation to repeat the activation test according to Article 5(5).

Title 3
IT Harmonisation

Article 12
Data exchange standards

1. By 18 months after the approval of this proposal, ENTSO-E shall define and publish a list of European data exchange standards based on ETSI-CEN-CENELEC set of standards, with one standard defined per relevant data exchange used in the interactions between TSOs and balancing service providers with regard to standard balancing products excluding operational real-time data exchange. Such standards shall focus on market access, marked-based procurement, non-real-time activation, and settlement, and should take into account specificities of the central dispatch model.
2. By 24 months after the publication of the list referred to in Article 12(1) of this Annex, each reserve connecting TSO shall implement the use of the European data exchange standards. Data exchange standards already implemented at the national level may continue to be applied. This implementation may be in addition to existing data exchange interfaces.

Title 4
Final provisions

Article 13
Language

1. The reference language for this CHP shall be English. For the avoidance of doubt, where TSOs need to translate this CHP into their national language(s), in the event of inconsistencies between the English version published by TSOs in accordance with Article 7 of the EB Regulation and any version in another language, the relevant TSOs shall, in accordance with national legislation, provide the relevant national regulatory authorities with an updated translation of the CHP.