
All TSOs' proposal for the implementation framework for a
European platform for the imbalance netting process in
accordance with Article 22 of Commission Regulation (EU)
2017/2195 of 23 November 2017 establishing a guideline on
electricity balancing

15 January 2018

All TSOs, taking into account the following:

Whereas

- (1) This document is a common proposal developed by all Transmission System Operators (hereafter referred to as “TSOs”) regarding a proposal for the implementation framework for a European platform for the imbalance netting process (European platform for the imbalance netting process hereafter referred to as “IN-Platform”) in accordance with Article 22 of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (hereafter referred to as the “GLEB”). This proposal is hereafter referred to as the “Implementation Framework”.
- (2) The Implementation Framework takes into account the general principles, goals and other methodologies set in the GLEB. The goal of the GLEB is the integration of balancing energy markets. The integration of balancing energy markets should be facilitated with the establishment of common European platforms for operating the imbalance netting process and enabling the exchange of balancing energy from frequency restoration reserves and replacement reserves. Cooperation between TSOs should be strictly limited to what is necessary for the efficient and secure design, implementation and operation of those European platforms.

The Implementation Framework lays down the design, functional requirements, governance and cost sharing for the IN-Platform. In addition, the Implementation Framework contains the proposal for the entity to perform the functions of the IN-Platform. The IN-Platform shall be able to perform the imbalance netting process function as well as the TSO-TSO settlement function as described in the Article 22 of the GLEB. In addition, the
- (3) Implementation Framework takes note of the provisions listed in the recitals (4) to (7).
- (4) Article 3(128) of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereafter referred to as the “GLSO”) defines the imbalance netting process as *“a process agreed between TSOs that allows avoiding the simultaneous activation of FRR in opposite directions, taking into account the respective FRCEs as well as the activated FRR and by correcting the input of the involved FRPs accordingly”*.
- (5) Article 146(9) of the GLSO specifies further, *where a LFC block consists of more than one LFC area and the reserve capacity on FRR as well as the reserve capacity on RR is calculated based on the LFC block imbalances, all TSOs of the same LFC block shall implement an imbalance netting process and interchange the maximum amount of imbalance netting power defined in Article 146(6) of the GLSO with other LFC areas of the same LFC block.*
- (6) In Article 146(10) of the GLSO it is detailed that, *where an imbalance netting process is implemented for LFC areas of different synchronous areas, all TSOs shall interchange the maximum amount of imbalance netting power defined in Article 146(6) of the GLSO with other TSOs of the same synchronous area participating in that imbalance netting process.*
- (7) Additional relevant references to IN-Platform within the GLEB are listed below:
 - (a) Article 18 (3) (b):

(3) *When developing proposals for terms and conditions for balancing service providers and balance responsible parties, each TSO shall:*

...

(b) *respect the frameworks for the establishment of European platforms for the exchange of balancing energy and for the imbalance netting process pursuant to Articles 19, 20, 21 and 22;*

(b) Article 23:

- (1) *All TSOs shall provide a yearly report to the relevant regulatory authorities in accordance with Article 37 of Directive 2009/72/EC in which the costs of establishing, amending and operating the European platforms pursuant to Articles 19, 20, 21 and 22 are explained in detail. This report shall be published by the Agency taking due account of sensitive commercial information.*
- (2) *The costs referred to in paragraph 1 shall be broken down into:*
 - (a) *common costs resulting from coordinated activities of all TSOs participating in the respective platforms;*
 - (b) *regional costs resulting from activities of several but not all TSOs participating in the respective platforms;*
 - (c) *national costs resulting from activities of the TSOs in that Member State participating in the respective platforms.*
- (3) *Common costs referred to in paragraph 2(a) shall be shared among the TSOs in the Member States and third countries participating in the European platforms. To calculate the amount to be paid by the TSOs in each Member State and, if applicable, third country, one eighth of the common cost shall be divided equally between each Member State and third country, five eighths shall be divided between each Member State and third country proportionally to their consumption, and two eighths shall be divided equally between the participating TSOs pursuant to paragraph 2(a). The Member State's share of the costs shall be borne by the TSO or TSOs operating in a territory of that Member State. In case several TSOs are operating in a Member State, the Member State's share of the costs shall be distributed among those TSOs proportionally to the consumption in the TSOs control areas.*
- (4) *To take into account changes in the common costs or changes in the participating TSOs, the calculation of common costs shall be regularly adapted.*
- (5) *TSOs cooperating in a certain region shall jointly agree on a proposal for the sharing of regional costs in accordance with paragraph 2(b). The proposal shall then be individually approved by the relevant regulatory authorities of each of the Member States and, if applicable, third country in the region. TSOs cooperating in a certain region may alternatively use the cost sharing arrangements set out in paragraph 3.*
- (6) *The cost sharing principles shall apply to costs contributing to the establishing, amending and operating the European platforms from the approval of the proposal for the relevant implementation frameworks pursuant to Articles 19(1), 20(1), 21(1)*

and 22(1). In case the implementation frameworks propose that existing projects shall evolve into a European platform, the participating TSOs may propose that a share of the costs incurred before the approval of the proposal for the implementation frameworks directly related to the development and implementation of this project and assessed as reasonable, efficient and proportionate is considered as part of the common costs pursuant to paragraph 2(a).

(c) Article 37 (1):

(1) After the intraday-cross-zonal gate closure time, TSOs shall continuously update the availability of cross-zonal capacity for the exchange of balancing energy or for operating the imbalance netting process. Cross-zonal capacity shall be updated every time a portion of cross-zonal capacity has been used or when cross-zonal capacity has been recalculated.

(d) Article 58 (2) and (4):

(2) In the proposal pursuant to Article 22, all TSOs shall develop an algorithm to be operated by the imbalance netting process function. This algorithm shall minimise the counter activation of balancing resources by performing the imbalance netting process pursuant to Part IV of GLSO.

(4) All algorithms developed in accordance with this Article shall:

(a) respect operational security constraints;

(b) take into account technical and network constraints;

(c) if applicable, take into account the available cross-zonal capacity.

- (8) The Implementation Framework contains the deliverables pursuant to Articles 22 (1) and 22 (3) of the GLEB and it is developed pursuant to principles of Articles 18(3)(b), 23, 37(1), 58(2) and 58(4) of the GLEB.
- (9) Article 5 (5) of the GLEB requires that the Implementation Framework includes a proposed timescale for its implementation and a description of its expected impact on the objectives of the GLEB. The expected impact is described in paragraphs 8, 9, 10, 11, 12, 13 and 14. The proposed timescale is included in Article 4.
- (10) The Implementation Framework contributes to the objective of non-discrimination and transparency in balancing markets pursuant to Article 3(1)(a), (2)(a) and (b) of the GLEB, since the same methodology will apply to all TSOs and LFC areas and by this minimise the counter activation of balancing resources for all market participants in a non-discriminatory way. All TSOs will have access to the same reliable information on netted volumes at the same time and in a transparent way. All market participants will have access to the same reliable information on netted volumes according to Article 12 of GLEB.
- (11) The Implementation Framework contributes to the objective of enhancing efficiency of balancing as well as efficiency of European and national balancing markets pursuant to Article 3(1)(b) and (2)(c) of the GLEB by reducing the volumes of activated balancing reserves in Europe and the national balancing markets.

- (12) The Implementation Framework contributes to the objective of integrating balancing markets pursuant to Article 3(1)(c) of the GLEB by implementation of the European platform for the imbalance netting process to be used by all TSOs performing the automatic frequency restoration process, at least for the Continental Europe synchronous area.
- (13) The Implementation Framework contributes to the objective of contributing operational security pursuant to Article 3(1)(c), (2)(d) and (f) of the GLEB since the proposed principles of algorithm minimise the counter activation of balancing resources and increase the available balancing resources for activation in real-time, as well as the proposed congestion management methodologies proved their effectiveness in operation.
- (14) The Implementation Framework contributes to the objective of facilitating the efficient and consistent functioning balancing markets pursuant to Article 3(1)(d) of the GLEB by minimising the counter activation of balancing resources and increase the available balancing resources.
- (15) The Implementation Framework serves the requirement of Article 3(2)(e) since only available cross-zonal capacity after the previous market timeframes is used for imbalance netting and by this it is ensured that the development of the forward, day-ahead and intraday electricity markets is not compromised, while the availability of cross-zonal capacity for operating the imbalance netting process shall be continuously updated by TSOs.
- (16) The Implementation Framework serves the requirement of Article 3(2)(h) since the technical framework proposed is based on agreed European standards, which are already in operation.
- (17) In conclusion, the Implementation Framework contributes to the general objectives of the GLEB.

SUBMIT THE FOLLOWING IMPLEMENTATION FRAMEWORK TO ALL NATIONAL REGULATORY AUTHORITIES:

Article 1 **Subject matter and scope**

- (1) The IN-Platform as determined in this Implementation Framework is the common proposal of all TSOs in accordance with Article 22 of the GLEB.
- (2) This proposal applies solely to the imbalance netting process. The European platforms for frequency restoration reserves processes and replacement reserves process are out of the scope of this proposal.
- (3) The proposal for the pricing of balancing energy and cross-zonal capacity used for exchange of balancing energy or for operating the imbalance netting process pursuant to Article 30 of GLEB is considered to be out of the scope of this document and will be treated in a separate document.
- (4) The proposal for TSO-TSO settlement rules applicable to the imbalance netting process pursuant to Article 50 of GLEB is considered to be out of the scope of this document and will be treated in a separate document.

Article 2

Definitions and interpretation

- (1) For the purposes of the Implementation Framework, the terms used shall have the definition given to them in Article 2 of GLEB, Article 3 of GLSO and Article 2 of Commission Regulation (EU) 2015/1222.
- (2) In addition, in this Implementation Framework the following terms shall apply:
 - (a) ‘aFRR’ means automatic FRR in accordance with Article 3 paragraph 2. rec (99) of GLSO;
 - (b) ‘aFRR cooperation’ means two or more LFC areas or LFC blocks with a common activation of balancing energy from aFRR where the activation of balancing energy from aFRR follows the principle of a common merit order;
 - (c) ‘border’ means a set of physical transmission lines linking adjacent LFC areas;
 - (d) ‘correction’ or ‘ P_{corr} ’ means the amount of power exchange of the participating TSO with other participating TSOs in MW. The correction value is treated as “an agreed upon active power flow” in the sense of the virtual tie-line defined in the GLSO between participating TSOs;
 - (e) ‘demand’ or ‘ P_{demand} ’ means a certain amount of aFRR that is required by the participating TSO in order to control the ACE to zero in MW. The demand is the sum of the current already activated aFRR and the current ACE without the influence of the correction;
 - (f) ‘expert group’ or ‘EG’ means the body including nominated experts of all member TSOs of IGCC or IN-Platform;
 - (g) ‘host TSO’ means the member TSO hosting, operating and maintaining the imbalance netting processing function;
 - (h) ‘IGCC’ means International Grid Control Cooperation and is the implementation project for the IN-platform. The IGCC will transform into the IN-Platform in accordance with paragraph 1 of Article 4. The IGCC is hereafter also referred to as the “IN-Platform”;
 - (i) ‘limit’ means a constraint sent by a participating TSO to the imbalance netting process function and taken into account by the imbalance netting process function for the calculation of the correction;
 - (j) ‘member TSO’ means any TSO who has joined IGCC or IN-Platform;
 - (k) ‘optimization region’ means two or more neighboring LFC blocks performing imbalance netting process between each other before performing imbalance netting process with the other participating TSOs;
 - (l) ‘participating TSO’ means any member TSO who uses the European platform for imbalance netting to perform the imbalance netting process (participates in IGCC or in IN-Platform);
 - (m) ‘real-time optimization cycle’ means time in which the imbalance netting process function calculates a new correction as a result;

- (n) 'steering committee' or 'SC' means the decision making body of IGCC or IN-Platform and is the superior body to the expert group.

Article 3

High level design of the IN-Platform

- (1) This Implementation Framework introduces the imbalance netting process agreed and proposed by all TSOs to be made operational by all TSOs performing the automatic frequency restoration process pursuant to Part IV of GLSO that will minimize the simultaneous counter activation of aFRR. Hereby taking into account the limits, the respective FRCE as well as the activated volume of balancing energy from aFRR and correcting the input of the involved frequency restoration processes accordingly.
- (2) The implementation of the process shall be based on the communication of the load-frequency control of each participating TSO with the imbalance netting process function which enables real-time balancing of the instantaneously occurring active power imbalances.
- (3) The imbalance netting process shall be based on the demand of every participating TSO being continuously reported to the IN-Platform by each participating TSO.
- (4) The IN-Platform shall return a correction to every participating TSO to be used in the load-frequency control of each participating TSO. The correction shall be calculated by the algorithm applied for operating the imbalance netting process.
- (5) The corrections are used for the determination of the energy quantities to be used by the TSO-TSO settlement function.
- (6) The imbalance netting process function and the TSO-TSO settlement function shall be operated by the host TSO of the IN-Platform.
- (7) The IN-Platform has two-level governance structure, SC as the decision making body of the IN-Platform and EG as the expert body of the IN-Platform.

Article 4

Implementation of the IN-Platform

- (1) For the proposed timeline in paragraph 2 of this Article all TSOs take into account: all TSOs agree on that the existing project IGCC is the implementation project which will become the IN-Platform. As soon as IGCC fulfils every requirement defined in this Implementation Framework and further requirements by the GLEB, IN-Platform is formally implemented as required by Article 22(4) and 22(5) of the GLEB.
- (2) The following steps and timeline shall be used as the roadmap for the implementation of the IN-Platform:
 - (a) designation of entity: all TSOs shall designate the entity responsible for operating the IN-Platform within 6 months after approval of the Implementation Framework;

- (b) adaptation of IGCC: all member TSOs shall amend the IGCC to fulfil the Implementation Framework and all other relevant methodologies or requirements of the GLEB including but not limited to Article 30 and 50;
- (c) development and adaptation: all member TSOs shall implement all necessary amendments to the functionalities of IGCC in accordance with the Implementation Framework no later than eleven months after the approval of Implementation Framework. Development and adaptation shall start at the latest by the approval of the Implementation Framework. The implementation of any necessary amendment shall be completed for the imbalance netting process function, as well as for the TSO-TSO settlement function;
- (d) testing: the host TSO and every member TSO liable to introduce amendments pursuant to paragraph 2(c), shall test the functions of the IN-Platform during the implementation of such amendments. The testing shall be successfully finished by eleven months after the approval of the Implementation Framework;
- (e) go-live: after testing is successfully completed, all member TSOs shall make the IN-Platform as an adaption of IGCC operational at latest by one year after the approval of the Implementation Framework;
- (f) national implementation: all member TSOs shall complete the implementation of necessary changes for the participating TSOs and affected TSOs at the latest by eleven months after the approval of the Implementation Framework. Every member TSO shall complete and succeed with any necessary technical and operational implementation by eleven months after the approval of the Implementation Framework;
- (g) accession to IN-Platform: all TSOs performing the automatic frequency restoration process, at least in Continental Europe synchronous area, shall strive for an early accession to the existing IGCC platform. According to the Article 22 (5) of the GLEB, all TSOs performing the automatic frequency restoration process, at least in Continental Europe synchronous area shall use the IN-Platform at the latest twelve months after the approval of the Implementation Framework. Accession process includes at least national implementation of technical and operational requirements, and successful individual testing.

Article 5

Functions of the IN-Platform

- (1) The IN-Platform shall consist of at least the imbalance netting process function and the TSO-TSO settlement function.
- (2) The operation of the IN-Platform by using the multilateral TSO-TSO model as described in the Implementation Framework among the participating TSOs shall in principle result in:
 - (a) lowering the amount of activated balancing resources from automatic frequency restoration process;
 - (b) strengthening security of supply; and
 - (c) generating social welfare.

- (3) The purpose of the imbalance netting process function shall be the following:
- (a) the assignment of imbalance netting potential among participating TSOs in each real-time optimization cycle is based upon the principles of proportional distribution, where the imbalance netting potential is based on the ratio of a participating TSO's demand and the sum of demands of all participating TSOs for the same direction of demand;
 - (b) all borders between participating TSOs shall be part of the IN-Platform. The inclusion, and exclusion of a border is possible in the following duly justified cases:
 - i. the exclusion of a border might be necessary due to ENTSO-E rules or regulatory decision;
 - ii. a border between participating TSOs can be excluded upon unilateral decision from the side of one of the participating TSOs at the specific border in case either operational or technical problems or strong detrimental effects in terms of costs and benefits are expected and made transparent to other participating TSOs;
 - iii. a border between participating TSOs can be excluded or included upon their bilateral agreement and the reasons for it shall be made transparent to other participating TSOs.
- (4) The purpose of the TSO-TSO settlement function shall be the following:
- (a) calculation of the settlement amount that each participating TSO has to bear for the intended exchange of energy from the imbalance netting process;
 - (b) each member TSO shall actively cooperate with all other member TSOs in order to:
 - i. create and revise concepts related to the settlement of intended exchange of energy from the imbalance netting process;
 - ii. monitor the correct implementation and execution of the settlement of intended exchange of energy from the imbalance netting process.
 - (c) the determined intended exchange of energy shall be considered within the determination of the accounting of unintentional deviations or settlement of unintended exchanges of energy;
 - (d) the settlement of intended exchange of energy from the imbalance netting process shall have the aim to share gained benefits in a fair manner between participating TSOs;
 - (e) each participating TSO shall implement and carry out the procedures for the settlement of intended exchange of energy from imbalance netting process in a proper and timely manner.

Article 6

Governance

- (1) The rules concerning the governance and operation of the IN-Platform shall ensure that no participating TSO benefits from unjustified economic advantages through the participation in the functions of the IN-Platform. Each member TSO has representative in the SC and EG. The member TSOs aim to find unanimous decisions. Where unanimity cannot be reached qualified majority voting according to Article 7 shall apply.

- (2) Each member TSO shall carry out the common governance principles of the IN-Platform by means of:
 - (a) the steering committee of the IN-Platform, which is the decision making body of the IN-Platform with the right to take any binding decision on any matter or question related to the operation of the IN-Platform. It is a superior body to the EG; and
 - (b) the expert group of the IN-Platform, which is the expert body of the IN-Platform and prepares background materials for SC (e.g. analysis, impact assessment, summary) and evaluates and proposes concepts in relation to the development governance and operation of the IN-Platform, the convenor of the EG is the single point of contact for all regulatory authorities.
- (3) Thereto, each member TSO shall appoint at least one regular representative in the SC and at least one in the EG.

Article 7

Decision making

- (1) Decisions leading to a change of the Implementation Framework or the approved methodologies according to Article 30(3) or 50(1) of the GLEB, shall be taken 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; for avoidance of any doubt, until twelve months after the approval of the Implementation Framework, any TSO not yet being member TSO, but being obliged to use the IN-Platform to perform the imbalance netting process, shall also take part in this approval process;
 - (b) all TSOs' decision: shall be subject to the approval of all TSOs, where all TSOs include both all member TSOs and non-member TSOs in the framework of the SC of the IN-Platform and this decision making is independent from the member TSO's decision process from the aspect of member TSOs.
- (2) Decisions not leading to a change of the Implementation Framework or the approved methodologies according to Article 30 or 50 of the GLEB but affecting all member TSOs shall be subject to approval of all member TSOs
- (3) Decisions not leading to a change of the Implementation Framework and only affecting several member TSOs of a specific region smaller than the geographical area of all member TSOs shall be subject to approval of the member TSOs of the concerned region.
- (4) In case of decisions according to paragraph 1(a) and 2, each member TSO is obliged to take part in the decision process. The quorum is reached when at least 2/3 of the member TSOs are present in person to initiate a decision process.
- (5) In case of decisions according to paragraph 3, each member TSO of the concerned area is obliged to take part in the decision process. The quorum is reached when at least 2/3 of the member TSOs of the concerned are present in person to initiate a decision process.

- (6) The member TSOs shall implement a decision process, which ensures effective decision making with the aim to find unanimous decisions. Where unanimity cannot be reached qualified majority voting shall apply.
- (7) Decisions according to paragraph 1 and 2 shall require a majority of:
 - (a) TSOs representing at least 55 % of the TSOs' countries concerned; and
 - (b) TSOs representing countries comprising at least 65 % of the population of countries concerned.
- (8) A blocking minority for these decisions must include TSOs representing at least four countries, failing of which the qualified majority shall be deemed attained.
- (9) Decisions according to paragraph 3 shall require a majority of:
 - (a) member TSOs representing at least 72 % of the member TSOs' countries of the concerned region; and
 - (b) member TSOs representing countries comprising at least 65 % of the population of member TSOs' countries of the concerned area.
- (10) Decisions in accordance with paragraph 3 in relation to regions composed of five countries or less shall be decided based on consensus.
- (11) Voting on SC decisions can be taken in physical meetings, conference calls or by circular resolution via e-mail.

Article 8

Proposal for entity or entities

- (1) All TSOs propose to designate the current host TSO of IGCC, the future IN-platform, for operating the imbalance netting process function;
- (2) All TSOs propose to designate the current host TSO of IGCC, the future IN-platform, for operating the TSO-TSO settlement function.

Article 9

Framework for harmonisation of the terms and conditions related to balancing

- (1) All TSOs agree that there is no need for harmonization of terms and conditions related to balancing for the establishment of the IN-Platform.

Article 10

Categorization of costs and detailed principles for sharing the common costs

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

- (c) national costs resulting from activities of the member TSOs in that Member State or third country participating in the IN-Platform.
- (2) Common costs shall include costs resulting from the SC decisions on proposals related to:
 - (a) common costs for establishing or amending the IN-Platform:
 - i. implementation of new functionalities in the imbalance netting process function 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;
 - (b) common costs of operating the IN-Platform:
 - i. operational costs related to the operation of the imbalance netting process function which are agreed as common costs by member TSOs in accordance with the decision process according to Article 7;
 - 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 process according to Article 7.
- (3) Costs pursuant to paragraph 2(b) shall be paid by participating TSOs. The member TSOs that are not participating TSOs of the IN-Platform shall not pay these costs.
- (4) Regional costs shall include the following:
 - (a) regional costs for establishing or amending the IN-Platform:
 - i. implementation of new functionalities in the imbalance netting process function which have an impact on the intended or unintended exchange of energy and which are applicable only by several, directly beneficiary member TSOs;
 - ii. implementation of new functionalities in the TSO-TSO settlement function which have an impact on the TSO-TSO settlement of only several, directly beneficiary member TSOs;
 - iii. commissioning of joint studies performed for only several, directly beneficiary member TSOs.
 - (b) regional costs of operating IN-Platform:
 - i. operational costs related to the operation of the imbalance netting process function which are agreed as regional costs by member TSOs in accordance with the decision process according to Article 7.
 - 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 process according to Article 7.

- (5) National costs are costs to be borne by each Member State or third country individually. Per Member State or third country the National costs can be split up into individual costs per member TSO. National costs shall include:
 - (a) national costs of operating IN-Platform:
 - i. costs of employees and travelling related to the IN-Platform;
 - ii. costs of development, implementation, operation and maintenance of technical infrastructure and procedures as well as for the settlement process.
- (6) The common costs in accordance to paragraph 2 shall be shared among the member TSOs, or where applicable the participating TSOs, in the Member States and third countries participating in the IN-Platform. The calculation of the amount to be paid by the member TSOs, or where applicable the participating TSOs, in each Member State and, if applicable, third country shall be based on the following principles set out by article 23 of the GLEB:
 - (a) one eighth of common costs shall be divided equally between each Member State and third country;
 - (b) five eighths of common costs shall be divided proportionally to the consumption of each Member State and third country; and
 - (c) two eighths of common costs shall be divided equally between member TSOs or where applicable participating TSOs.
- (7) Each member TSO shall bear its own individual 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 operation of the IN-Platform.
- (8) The cost sharing principle shall apply solely to costs incurred after the approval of the Implementation Framework.
- (9) For the avoidance of any doubts, all TSOs agree not to share any costs incurred before the approval of the Implementation Framework.
- (10) For avoidance of doubts, if a TSO becomes a member TSO after approval of the Implementation Framework, the TSO shall pay its share of costs pursuant to paragraph 2(a)(i) and (ii) also retrospectively in accordance with paragraph 8 of this Article.
- (11) The Member State's share of the costs shall be borne by the member TSO or member TSOs operating in a territory of that Member State. In case several member TSOs are operating 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 LFC areas.

Article 11

Description of the algorithm for the operation of imbalance netting process function

- (1) The algorithm for the operation of imbalance netting process function shall be based on the following principles:

- (a) the imbalance netting process function calculates imbalance netting power interchange by defining an active power flow over a virtual tie line which is part of the FRCE calculation of the individual LFC area. This active power flow over a virtual tie line is equal to the correction;
 - (b) the control target of the imbalance netting process function aims at reducing the amount of simultaneous counteracting aFRR activations of the different LFC areas of the participating TSOs by imbalance netting power interchange;
 - (c) the assignment of imbalance netting potential among participating TSOs in each real-time optimization cycle is based upon the principles of proportional distribution according to Article 5(3)(a);
 - (d) the interaction between the imbalance netting process function and participating TSOs is defined by the following:
 - i. each participating TSO calculates the demand and the limits of its LFC area;
 - ii. the demands and limits are sent to the imbalance netting process function;
 - iii. the imbalance netting process function calculates the corrections whilst respecting the limits; and
 - iv. the corrections are sent to the participating TSOs and are used by them;
 - (e) all participating TSOs cooperate to implement limits to ensure operational security and transparency of information related to the respective operational procedures and methodologies. The entity designated for the operation of the imbalance netting process function implements and use the limits in the imbalance netting process function. The participating TSOs shall define the limits according to the following rules:
 - i. the limits between borders where a capacity allocation is performed shall be based upon the available cross-zonal capacity after cross border intraday market and be further updated according to Article 37 (1) of the GLEB;
 - ii. all borders can be further limited to ensure operational security.
- (2) Between synchronous areas the algorithm for the operation of imbalance netting process function shall be based on the following principles:
- (a) the control target of the imbalance netting process function between synchronous areas aims at reducing the amount of simultaneous counteracting aFRR activations of the different synchronous areas of the participating TSOs by imbalance netting power interchange;
 - (b) the assignment of imbalance netting process potential among participating TSOs in each real-time optimization cycle shall be based upon the principles of proportional distribution according to Article 5(3)(a) and non-discrimination;
 - (c) the basic principles of the imbalance netting process function between synchronous areas shall be following:
 - i. each participating TSO calculates the demand and the limits of its LFC area;
 - ii. the demands and limits are sent to the imbalance netting process function;

- iii. the imbalance netting process function calculates the corrections whilst respecting the limits; and
 - iv. the corrections for cross synchronous imbalance netting are used for adjusting the active power flows over HVDC interconnectors compliant to Article 147 of the GLSO.
- (3) Each member TSO belonging to an LFC block shall have the right to perform imbalance netting with the other member TSO(s) of the same LFC block prior the imbalance netting with other LFC blocks and by this have prior access to the transmission capacity within the LFC block. Imbalance netting within an LFC block is not considered as an optimization region.
- (4) Each member TSO shall have the right to participate in an optimization region in accordance with the following rules:
- (a) imbalance netting within an aFRR cooperation between two or more LFC blocks participating in the IN-Platform is considered as an optimization region, preceding the imbalance netting among all LFC blocks of the IN-Platform and by this the concerned TSOs have prior access to the transmission capacity within the aFRR cooperation;
 - (b) the optimal distribution of activations in an optimization region obtained as a result of an aFRR cooperation shall be respected by the imbalance netting optimization process function, without reducing the overall netting volume;
 - (c) if an optimization region due to an aFRR cooperation exists, all the remaining LFC blocks not being part of the optimization region of to the aFRR cooperation shall have the right to participate in an optimization region for imbalance netting, preceding the imbalance netting among all LFC blocks of the IN-Platform;
 - (d) each LFC block participating in the IN-Platform can have only one optimization region with other LFC block(s) preceding the imbalance netting among all LFC blocks of the IN-platform.
- (5) Paragraph (4) is valid as long as the geographical region of the member TSOs participating in the IN-Platform differs from the geographical region of the member TSOs participating in the European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation (thereafter referred to as aFRR-platform) in accordance with Article 21 of the GLEB.
- (6) In case the aFRR-platform is implemented in accordance with Article 21 of the GLEB, the IN-platform can be merged into the aFRR-platform.