
All TSOs' proposal for eCommon settlement rules applicable to all intended exchanges of energy as a result of the reserve replacement process, the frequency restoration process with manual and automatic activation and the imbalance netting process ~~pursuant to~~ in accordance with Article 50(1) of the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

11 November 2019

Disclaimer: All TSOs submit this proposal taking into consideration market design options agreed by all TSOs, all NRAs requests for amendments and the known status of discussions with ACER on EB-GL referred proposals (aFRRIF, mFRRIF, PP). Changes on proposals related to the content of this proposal should be taken into consideration by the relevant regulatory authorities in their approval process.

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 the methodologies for the TSO TSO provides the common settlement rules applicable by Transmission System Operators (hereafter referred to as “TSOs”) to ~~of~~ ~~the all~~ intended exchanges of energy as the result of the reserve replacement process, ~~the~~ frequency restoration process with manual and automatic activation and ~~the~~ imbalance netting process (hereafter referred to as the “TSOs settlement methodology”) in accordance with Article 50(1) of the Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing (hereafter referred to as the “EBGL Regulation”). ~~This proposal is hereafter referred to as the “SP”.~~
- (2) The TSOs settlement methodology ~~SP~~ takes into account the general principles and goals set in the EB ~~RegulationGL~~, the Commission Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation (hereafter referred to as the “SO ~~RegulationGL~~”), the Commission Regulation (EU) 2015/1222 ~~of 24 July 2015~~ establishing a guideline on capacity allocation and congestion management (hereafter referred to as the “CACM ~~Regulation~~”) as well as ~~the Regulation (EU) 2019/943 of the European Parliament and of the Council on the internal market for electricity (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross border exchanges in electricity~~ (hereafter referred to as the “Electricity Regulation”).
- (3) The goal of the EB ~~RegulationGL~~ is the integration of balancing markets while contributing to operational security. To facilitate this goal, it is necessary to develop implementation frameworks for European platforms for the exchange of balancing energy from frequency restoration reserves with manual and automatic activation, replacement reserves and the imbalance netting process pursuant to Articles 19 to 22 of the EB ~~RegulationGL~~. Additionally, Article 30 of the EB ~~RegulationGL~~ formulates the requirements regarding the pricing of balancing energy and cross-zonal capacity used for the exchange of balancing energy.
- (4) Pursuant to the requirements of Articles 50(6) and 50(7) of the EB Regulation, this TSOs settlement methodology takes into account the methodology developed in accordance with Article 30 regarding ~~the pricing of balancing energy and cross-zonal capacity used for the exchange of balancing energy, by using the cross-border marginal prices, calculated by the activation optimisation function of the respective European platform, as basis for the settlement of the intended exchanges of energy among TSOs in the scope of Article 50(1) of the EB Regulation. Moreover, pursuant to the requirement of Article 50(5)(c) of the EB Regulation the settlement among TSOs is also based on the integral over the respective settlement period of the power interchange, as calculated by the activation optimisation function of the respective European platform.~~
- (5) This TSOs settlement methodology includes provisions related to the calculation, collection and sharing of the congestion income as a result of the exchange of balancing energy between areas with different cross-border marginal prices. The sharing of this congestion income is aligned with the respective methodology developed under the CACM Regulation, following the coordinated net transmission capacity approach. However, ~~in case the methodology pursuant to Article 37(3) of the EB Regulation is developed, following the flow-based approach, this TSOs settlement methodology should be amended accordingly.~~
- (4) Article 50 of the EBGL constitutes the legal basis for this proposal:

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~~“1. By one year after the entry into force of this Regulation, all TSOs shall develop a proposal for common settlement rules applicable to all intended exchanges of energy as a result of one or more of the following processes pursuant to Articles 146, 147 and 148 of Commission Regulation (EU) 2017/1485 [SO], for each of the following:~~

- ~~(a) the reserve replacement process;~~
- ~~(b) the frequency restoration process with manual activation;~~
- ~~(c) the frequency restoration process with automatic activation;~~
- ~~(d) the imbalance netting process.~~

~~2. Each TSO-TSO settlement function shall perform the settlement in accordance with the settlement rules pursuant to paragraph 1.~~

~~[...]~~

~~5. The common settlement rules in accordance with paragraph 1 shall at least contain the provisions that the intended exchange of energy is calculated on the basis of the following criteria:~~

- ~~(a) over periods agreed among relevant TSOs;~~
- ~~(b) per direction;~~
- ~~(c) as the integral of the calculated power interchange over the periods pursuant to paragraph 5(a).~~

~~6. The common settlement rules of intended exchanges of energy in accordance with paragraphs 1(a), 1(b) and 1(c) shall take into account:~~

- ~~(a) all balancing energy prices established pursuant Article 30(1);~~
- ~~(b) the methodology for pricing of cross-zonal capacity used for the exchange of balancing energy pursuant Article 30(3).~~

~~7. The common settlement rules of intended exchanges of energy in accordance with paragraph 1(d) shall take into account the methodology for pricing of cross-zonal capacity used for operating the imbalance netting process pursuant Article 30(3).”~~

(5)(6) These TSOs settlement methodology SP fulfils the objectives stated in Article 3 of the EB Regulation^{GL} as follows:

~~(a) The SP fulfils the requirements of Article 50(1).~~

(a) This TSOs settlement methodology contributes to the objective for fostering non-discrimination and transparency in balancing markets as stated in Article 3(1)(a) of the EB Regulation, by setting the same rules for settlement for all TSOs, based on the outputs of the activation optimisation function.

(b) This TSOs settlement methodology enhances efficiency of balancing by linking the cash-flows among TSOs with the power interchange calculated by the activation optimisation functions and with the balancing energy pricing set for the provision of balancing energy by the balancing service provides, in accordance with the objective stated in Article 3(1)(b) of the EB Regulation.

(c) This TSOs settlement methodology contributes to the objective stated in Article 3(1)(c) of the EB Regulation for integrating balancing markets and promoting the possibilities for exchanges

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of balancing services, by setting the rules for settling the exchanges of balancing energy among the TSOs.

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~~(b)~~(d) This TSOs settlement methodology SP contributes to the objective of consistent functioning of day-ahead, intraday and balancing markets as stated in Article 3(1)(d) of the EB RegulationGL, since ~~the proposed methodology~~ it is consistent with the day-ahead congestion income distribution ~~proposal~~ methodology.

~~(e)~~(e) This TSOs settlement methodology SP contributes to the objectives stated in Article 3(1)(e) of the EB RegulationGL since the settlement methodology is non-discriminatory towards ~~BSPs~~ balancing service providers as it does not favour a specific technology to provide balancing energy. The TSOs settlement methodology SP is non-discriminatory towards TSOs as the same settlement rules apply for each TSO participating in a platform. Moreover, this TSOs settlement methodology is transparent, since the settlement is based on the outputs of the activation optimisation function of the European platforms.

~~(f)~~(f) This TSOs settlement methodology SP contributes to the objectives stated in Article 3(1)(f) of the EB RegulationGL and Article 3(1)(g) of ~~the EB RegulationGL~~, since it facilitates the the integration of the balancing energy market by enabling the settlement of the energy exchanges among TSOs, combined with lowered entry barriers which in turn facilitates the participation of demand response, energy storage and renewable energy sources.

~~(e)~~ The TSOs settlement methodology SP contributes to the objective set out in Article 3(2)(h) since this methodology takes into consideration all the European balancing process and the technical specifications that emanate from them.

(f) — The TSOs settlement methodology SP contributes to the objective stated in Article 3(2)(a) since this methodology applies the principles of proportionality and non-discrimination through the definition of specific settlement rules for different process which apply to each TSO participating in the respective platform.

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(g) In conclusion, this TSOs settlement methodology SP meets the objectives of the EB RegulationGL.

Abbreviations

The list of abbreviations used in this SP is following:

- aFRP: automatic frequency restoration process
- aFRR: frequency restoration reserves with automatic activation
- BEPP: balancing energy pricing period
- CACM: guideline on capacity allocation and congestion management
- CBMP: cross border marginal price
- CZC: cross-zonal capacity
- EBGL: guideline on electricity balancing
- IN: imbalance netting
- INP: imbalance netting process
- LFC: load frequency control
- mFRP: manual frequency restoration process
- mFRR: frequency restoration reserves with manual activation
- MWh: megawatt hour
- NRA: national regulatory authority
- RR: replacement reserve
- RRP: reserve replacement process
- SOGL: guideline on electricity transmission system operation
- SP: settlement proposal
- TSO: transmission system operator

SUBMIT THE FOLLOWING SP TO ALL REGULATORY AUTHORITIES:

Article 1 Subject Matter and Scope

1. The TSOs settlement methodology SP ~~is provides~~ the common ~~proposal settlement rules~~ of all TSOs in accordance with Article 50(1) of the EB RegulationGL, ~~and shall apply to~~ ~~all~~ TSOs participating in any of the European balancing platforms pursuant to Articles 19, 20, 21 and 22 of the EB RegulationGL ~~shall implement the TSOs settlement methodology~~. For the avoidance of doubt, when ~~re~~ a TSO is not ~~mandated required~~ by the EB RegulationGL to implement and make operational any of the European balancing platforms pursuant to Articles 19, 20, 21 and 22 of the EB RegulationGL, but it becomes a participating TSO of ~~any~~ European balancing platform(s), ~~this TSO shall also implement the TSOs settlement methodology SP shall also apply to this TSO~~. Where an LFC area consists of more than one monitoring areas, only the TSO appointed in the LFC area operational agreement as responsible for the implementation and operation of the frequency restoration process in accordance with Article 143(4) of the SO RegulationGL shall ~~apply implement~~ the TSOs settlement methodology SP.
2. The TSOs settlement methodology SP defines the methodology to determine ~~the~~ settlement amounts of all intended exchanges of energy as a result of ~~the~~ reserve replacement process pursuant to Article 144(1) of the SO RegulationGL (hereafter referred to as “RRP”), ~~of the~~ imbalance netting process pursuant to Article 146(1) of the SO RegulationGL (hereafter referred to as “INP”), ~~of the~~ automatic frequency restoration process (hereafter referred to as “aFRP”) and ~~the~~ manual frequency restoration process (hereafter referred to as “mFRP”) pursuant to Article 145(1) of the SO RegulationGL.
3. The TSOs settlement methodology SP defines, ~~additionally~~, how the settlement amounts determined are settled ~~between among~~ TSOs and how the balancing congestion income is calculated and distributed among TSOs.

Article 2 Definitions and ~~i~~ Interpretation

1. For the purposes of the TSOs settlement methodology SP, the terms used shall have the meaning given to them in Article 2 of the Electricity Regulation, Article 2 of the EB RegulationGL, Article 3 of the SO RegulationGL and Article 2 of the CACM Regulation.
2. In addition, in the TSOs settlement methodology SP the following terms shall apply:
 - (a) ‘aFRR-Platform’ means ~~the~~ European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation ~~(hereafter referred to as “aFRR”) pursuant to Article 21(1) of the EB Regulation;~~
 - (b) ‘aFRR balancing border’ means a set of physical transmission lines linking adjacent LFC areas of participating TSOs. ~~The optimisation algorithm of the aFRR Platform calculates the automatic frequency restoration power interchange for each aFRR balancing border. For the purposes of the optimisation, each aFRR balancing border has a mathematically defined negative and positive direction for the automatic frequency restoration power exchange;~~
 - (c) ‘balancing border’ means an RR, mFRR or aFRR balancing border;
 - (d) ‘balancing congestion income’ means the revenues received as a result of the exchange of balancing energy between uncongested areas with different CBMPs;
 - ~~(e) ‘balancing energy pricing period’ means a time interval for which cross border marginal prices are calculated;~~

- (c) 'cross-border marginal price' (hereafter referred to as "CBMP") means the ~~cross-border marginal/balancing energy~~ price calculated in accordance with the ~~pricing proposal/methodology~~ pursuant to Article 30(1) of the EB Regulation;
- (f) 'demand' means an individual TSO's demand for ~~activation of any~~ balancing energy ~~representing the activation request for balancing energy and can be price inelastic or elastic~~ standard product bids;
- (g) 'direct activation' means an mFRR-Platform process for bid activation in the context of Article 145(5) of SO Regulation that can occur to activate ~~standard mFRR balancing energy product bids~~ at any point of time;
- (h) 'European balancing platform' means a European platform for the exchange of balancing energy from replacement reserves, from frequency restoration reserves with manual activation, from frequency restoration reserves with automatic activation or for ~~the imbalance netting process~~ INP in accordance with ~~respectively~~ Articles 19, 20, 21 or 22 of the EB ~~Regulation~~ GL ~~respectively~~;
- ~~'exchange of balancing energy' means intended exchanges of energy as a result of the RRP, the mFRP, the aFRP or the INP;~~
- (j) 'financial settlement period' means the time interval for which settlement prices, volumes and amounts are calculated for ~~TSO-TSO exchanges of balancing energy by the TSO-TSO function.~~ ~~For the settlement of exchanges of energy between TSOs as a result of the aFRP, mFRP or RRP, the financial settlement period shall be equal to the balancing energy pricing period~~ market time unit used in each European balancing platform.
- (i) ~~For the settlement of exchanges of energy between TSOs as a result of the INP, the financial settlement period shall be 15 minutes starting right after at 00:00 am, until When all TSOs that have are required to make the aFRR Platform and the IN Platform operational are become participating TSOs of the aFRR Platform, but and not later than by 1st January 2024, moment from which the financial settlement period shall be equal to the balancing energy pricing period~~ market time unit of the aFRR Platform;
- (j) 'IN-Platform' means the European platform for the INP as referred to in Article 22(1) of the EB Regulation;
- (k) 'imbalace netting IN balancing border' means a set of physical transmission lines linking adjacent LFC areas of ~~participating TSOs participating in the IN Platform.~~ ~~The optimisation algorithm of the IN Platform calculates the imbalance netting power interchange for each imbalance netting IN balancing border. For the purposes of the optimisation, each imbalance netting IN balancing border has a mathematically defined negative and positive direction for the imbalance netting power interchange;~~
- (l) 'implementation framework' means the proposals for the European platforms pursuant to ~~Article 19(1), 20(1), 21(1) and 22(1) of the EB Regulation~~ GL;
- (m) 'IN-Platform' means the European platform for the imbalance netting process;
- (n) 'exchange of balancing energy' means ~~intended exchanges of energy as a result of the reserve replacement process, the frequency restoration process with manual activation, the frequency restoration process with automatic activation or the imbalance netting process;~~
- (l) 'mFRR-Platform' means the European platform for the exchange of balancing energy from frequency restoration reserves with manual activation (hereafter referred to as "mFRR") pursuant to ~~in~~ Article 20(1) of the EB Regulation;
- (m) 'mFRR balancing border' means a set of physical transmission lines linking adjacent LFC areas of ~~participating TSOs participating in the mFRR Platform.~~ In case an LFC area consists of more than one bidding zone, the mFRR balancing border means a set of physical transmission lines linking

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adjacent bidding zones. ~~The optimisation algorithm of the mFRR Platform calculates the cross border manual frequency restoration power exchange for each mFRR balancing border. 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;~~

- (q) ~~‘net border balancing income’ means the balancing congestion income allocated per balancing border as defined in Article 7 of this proposal;~~
- (#)(n) ~~‘non-intuitive balancing energy flows’ means an exchange of balancing energy resulting from the operation of the European balancing platforms from a bidding zone or LFC area with a higher cross-border marginal price CBMP to another bidding zone or LFC area with a lower cross-border marginal price CBMP due to selection of bids for a system constraints purpose;~~
- (s)(o) ~~‘participating TSO’ means any TSO which is member of one or more of the European balancing platforms and uses any of them to exchange RR, mFRR, aFRR and/or to operate the INP. 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 respective frequency restoration process according to Article 143(4) of the SO Regulation shall become participating TSO;~~
- (t) ~~‘price indeterminacy’ means that there is no unambiguous intersection point between the consumer and supply curves. The curve consisting of the positive demand and the downward BSP standard balancing energy product bids submitted to the respective European balancing platform constitutes the consumer curve, and therefore indicates the maximum price consumers (TSOs and BSPs) are willing to pay for consuming balancing energy. On the other hand, the curve consisting of the negative demand and the upward BSP standard balancing energy product bids submitted to the respective European balancing platform constitutes the producer curve, and therefore shows the minimum price they are willing to receive for supplying balancing energy;~~
- (u) ~~‘pricing proposal’ (hereafter referred to as “PP”) means the proposal for the methodology to determine prices for balancing energy activated for different activation purposes and cross zonal capacity in accordance with Article 30(1) and Article 29(3) of the EBGL;~~
- (+)(p) ~~‘RR-Platform’ means the European platform for the exchange of balancing energy from replacement reserves (hereafter referred to as “RR”) pursuant to Article 19(1) of the EB Regulation;~~
- (+)(q) ~~‘RR balancing border’ means a set of physical transmission lines linking adjacent bidding zones of participating TSOs participating in the RR-Platform. The optimisation algorithm of the RR-Platform calculates the cross-border reserve replacement power exchange for each RR balancing border. For the purposes of the optimisation, each RR balancing border has a mathematically defined negative and positive direction for the manual frequency restoration power interchange;~~
- (x)(r) ~~‘standard aFRR balancing energy product’ means the standard product for balancing energy from aFRR, pursuant to Article 25(1) of the EB Regulation frequency restoration reserves with automatic activation;~~
- (+)(s) ~~‘standard mFRR balancing energy product’ means the standard product for balancing energy from mFRR, pursuant to Article 25(1) of the EB Regulation frequency restoration reserves with manual activation;~~
- (z)(t) ~~‘standard RR balancing energy product’ means the standard product for balancing energy from RR, pursuant to Article 25(1) of the EB Regulation replacement reserves;~~
- (aa)(u) ~~‘uncongested area’ means the widest area, constituted by bidding zones and/or LFC areas, where the exchange of balancing energy and the netting of demands is not restricted by the cross-border~~

~~zonal capacities limits or by the allocation constraints, during a specific market time unit calculated in accordance with the implementation frameworks for the exchange of balancing energy from replacement reserves, from frequency restoration reserves with manual and automatic activation as well as for the imbalance netting process.~~

3. In the TSOs settlement methodology~~SP~~, unless the context requires otherwise:
 - (a) the singular indicates the plural and vice versa;
 - (b) headings are inserted for convenience only and do not affect the interpretation of the TSOs settlement methodology~~SP~~;
 - (c) 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;
 - (d) any reference to an Article without an indication of the document shall mean a reference to the TSOs settlement methodology~~SP~~.

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Article 3 **Settlement amounts due to the exchange of balancing energy**

1. The settlement amount of each participating TSO resulting from the exchange of balancing energy from RR, mFRR, aFRR and INP is equal to the sum of the following components:
 - (a) the product of (a) ~~the~~ exchanged volumes determined in accordance with Article 4 ~~of this SP~~ as the result of the exchange of balancing energy from RR, mFRR with scheduled activation, mFRR with direct activation and aFRR₁ and (b) the settlement prices determined in accordance with Article 5 ~~of this SP~~ and;
 - ~~(b) the settlement amounts as the result of the activation of standard RR and mFRR balancing energy product bids for system constraint activation purposes defined in accordance with Article 29(3) of the EBGL and determined in accordance with Article 6 of this SP;~~
 - ~~(e)(b) the settlement amounts as the result of balancing congestion income determined in accordance with Article 67 and Article 78 of this SP;~~
 - ~~(d) the settlement amounts as the result of different prices in one uncongested area in accordance with Article 89 of this SP;~~
 - ~~(e)(c) the product of the settlement prices and (a) the exchanged volumes as the result of the exchange of balancing energy from the imbalance netting process INP pursuant to Article 4(6), and (b) the settlement prices determined in accordance with Article 89 of this SP.~~

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Article 4 **Volumes of exchanges of balancing energy**

1. ~~For the settlement of exchanges of energy between TSOs as a result of the aFRP, mFRP or RRP, the financial settlement period shall be equal to the market time unit used in each European balancing platform.~~
- 4.2. The TSO-TSO settlement activation optimisation~~function~~ of the RR-Platform shall calculate, per direction, the exchange of balancing energy from RRP for each financial settlement period and for each RR balancing border as the product of the replacement power interchange, calculated by the activation optimisation function of the RR-Platform, and the respective financial settlement period.
3. The TSO-TSO settlement activation optimisation~~function~~ of the mFRR-Platform shall calculate, per direction, the exchange of balancing energy from mFRP with scheduled activation type for each financial settlement period and for each mFRR balancing border as the product of the manual frequency restoration

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power interchange from scheduled mFRR, calculated by the activation optimisation function of the mFRR-Platform, and the respective financial settlement period.

~~5.~~

~~4.~~ The TSO-TSO settlement activation optimisation function of the mFRR-Platform shall calculate, per direction, the exchange of balancing energy from mFRR with direct activation type for each financial settlement period and for each mFRR balancing border. The balancing energy volume of a direct activation to be settled between TSOs, in accordance with the specified standard exchange profile defined in accordance with the proposal methodology developed pursuant to Article 20(1) of the EB Regulation GL, is distributed over two financial settlement periods. For the subsequent financial settlement period, the assigned amount equals 15 minutes multiplied by the manual frequency restoration power interchange value. The remaining volume is attributed to the first financial settlement period.

~~(6)~~

~~5.~~ The TSO-TSO settlement activation optimisation function of the aFRR-Platform shall calculate, per direction, the exchange of balancing energy from aFRP for each financial settlement period and for each aFRR balancing border as the product of the automatic frequency restoration power interchange, calculated by the activation optimisation function of the aFRR-Platform, and the respective financial settlement period.

~~(7)~~

~~(8)6.~~ The TSO-TSO settlement activation optimisation function of the IN-Platform shall calculate, per direction, the intended exchange of balancing energy from INP for each financial settlement period and for each imbalance netting IN balancing border as the integral of the imbalance netting power interchange, calculated by the activation optimisation imbalance netting process function of the IN-Platform, for this financial settlement period.

Article 5

Settlement prices of exchanges of balancing energy

- ~~1.~~ The settlement price for the intended exchanges of energy between TSOs as result from of the RRP, mFRP with scheduled activation and direct activation and aFRP including implicit netting for each participating TSO and for each financial settlement period shall be equal to the CBMP of the corresponding standard balancing energy product, direction and -corresponding bidding zone or LFC area.
- ~~2.~~ The settlement price for the exchanges of energy between TSOs as a result of the INP for each participating TSO and for each financial settlement period shall be calculated in accordance with Articles 10(3) and 10(4) of this SP.

Article 6

Settlement of the exchange of balancing energy activated for system constraints purposes

- ~~1.~~ The settlement amount of each participating TSO resulting from the activation of standard RR and mFRR balancing energy product bids for system constraints activation purpose for each financial settlement period shall be determined per platform and is equal to the difference between:
 - ~~(a)~~ the TSO's reimbursement of additional costs resulting from activation of standard balancing energy bids for system constraint purpose as defined in Article 6(2);
 - ~~(b)~~ the TSO's charge for activation of standard balancing energy bids for system constraint purpose as defined in Article 6(3).

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1. The TSO's reimbursement of additional costs resulting from activation of standard balancing energy bids for system constraint purpose for RR or mFRR platform and each financial settlement period is equal to the difference between:
 - (a) the cost of satisfying the TSO's demand and activation of bids for system constraints purpose calculated as the difference between the TSO's payment resulting from the TSO-BSP settlement in accordance with the PP of the standard balancing energy product bids activated in the TSO's scheduling area and the TSO's settlement amount resulting from the TSO-TSO settlement in accordance with Art. 3(a),
 - (b) the cost of satisfying the TSO's demand calculated as a product of demand volume and:
 - i. in the case of TSO's inelastic demand: the CBMP that would be determined in accordance with the PP if there were no requests for activating standard balancing energy bids for system constraint purpose;
 - ii. in the case of TSO's elastic positive demand: the minimum of the TSO's demand price and the CBMP as defined in Article 6(1)(b)(i);
 - iii. in the case of TSO's elastic negative demand: the maximum of the TSO's demand price and the CBMP as defined in Article 6(1)(b)(i).
2. The TSO's charge for activation of standard balancing energy bids for system constraint purpose for RR or mFRR platform and each financial settlement period is equal to:
 - (a) 0 EUR for a TSO that has not requested any activation of bids for system constraints purpose,
 - (b) the TSO's share in the total costs of activation of standard balancing energy bids for system constraint purpose as defined in Article 6(4) and Article 6(5) for a TSO that has requested activation of bids for system constraints purpose.
3. The total costs of activation of standard balancing energy bids for system constraint purpose for RR or mFRR platform and each financial settlement period is equal to the sum of:
 - (a) the sum of all participating TSOs' reimbursements of additional costs resulting from activation of standard balancing energy bids for system constraint purpose calculated in accordance with the Article 6(2);
 - (b) the costs resulting from the non-intuitive balancing energy flows on the borders due to activation of standard balancing energy bids for system constraint purpose.
4. The TSOs that have requested activation of bids for system constraint purpose from the RR or mFRR platform shall share the total costs of activation of standard balancing energy bids for system constraint purpose from RR or mFRR platforms via the cost sharing methodology of the respective CCR in accordance with Article 74(1) of CACM or Article 76 of SOGL, where applicable.

Article 76

Process and calculation of balancing congestion income

1. Each platform shall calculate and collect for each optimisation run of the activation optimisation function of each European platform the total regional positive balancing congestion income for all participating TSOs per balancing border generated by the exchange of balancing energy product bids from RR, mFRR and aFRR respectively in accordance with paragraph (2), and the total, including negative congestion income related to non-intuitive flows, in accordance with paragraph (3). The negative congestion income on each balancing border shall be paid by the TSO(s) who requested the adjustment of the cross-zonal capacity that caused the non-intuitive flow on this balancing border. In the distribution of the positive

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balancing congestion income to the relevant TSOs or entities appointed by TSOs, the rules set forth in Article 78 of this proposal shall be respected.

5.

For each financial settlement period, the ~~total regional positive~~ balancing congestion income of all participating TSOs generated on each balancing border, in for each direction of the commercial balancing energy flow and for each platform, shall be equal to the ~~aggregated monetary value of net positions, calculated as the product of net positions and the respectively applicable CBMPs,~~

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~~1-2. or, in other terms, equal to the sum of positive differences~~ between:

~~(a) the balancing energy volume imported on the balancing border multiplied with the CBMP determined for the importing area,~~ and

~~(a)~~

the balancing energy volume exported on the balancing border multiplied with the CBMP determined for the exporting area.

~~(b) Each platform shall calculate and collect the negative congestion income per balancing border generated by adjustments of cross zonal capacities. The negative congestion income shall be paid by the TSO who applied requested the adjustment to the neighbouring affected TSO by this adjustment.~~

For each financial settlement period, the total negative balancing congestion income generated for all participating TSOs generated on each balancing border, in for each direction of the commercial balancing energy flow and for each platform, shall be equal to the negative difference between:

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the balancing energy volume imported on the balancing border multiplied with the CBMP determined for the importing area, and

~~(a) the balancing energy volume exported on the balancing border multiplied with the CBMP determined for the exporting area.~~

Article 78

Sharing keys for balancing congestion income distribution on the balancing border

1. The balancing ~~total regional~~ congestion income shall be attributed to the congested balancing borders, in accordance with the difference in CBMP and the balancing energy volume exchanged on that border, except for the negative congestion income related to non-intuitive flows due to the adjustment of cross-zonal capacity, which shall be paid by the TSO(s) who requested the adjustment of the cross-zonal capacity with different CBMPs between their two neighbouring areas proportionally to the commercial flows respective power interchange across those balancing borders and for resulting from each optimization run of the activation optimisation function of each European platform.

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6. For the balancing borders where balancing congestion income was ~~calculated~~ allocated in accordance with the calculation of balancing congestion income set forth in Article 6 paragraph (1) 7 of this proposal, the TSOs on each side of the balancing border shall receive their share of net border balancing congestion income based on a ~~standard~~ 50%-50% sharing key.

2.

3. In cases where the ownership shares or the shares of investments costs of TSOs on both sides of specific interconnectors on the concerned bidding zone border are different from a 50%-50% split, the concerned TSOs may also use a sharing key due to the different ownership shares, different shares of investments

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~~costs, exemption decisions¹ or decisions on cross-border cost allocation² by competent regulatory authorities or the Agency. In specific cases the concerned TSOs may also use a sharing key different from 50%-50%. Such cases may involve, but are not limited to, different ownership shares or different investment costs.~~The sharing keys for these specific cases shall be published in a common document by ENTSO-E on its web page for information purposes only. This document shall list all these specific cases with the name of the interconnector, the bidding zone border, the involved TSOs/Parties, the specific sharing key applied and the motivation / reasons for the deviation from the 50%-50% sharing key. The document shall be updated and published promptly as soon as any changes occur. Each publication shall be announced in an ENTSO-E~~s~~ newsletter.

7. —

~~(8)4.~~ In case specific interconnectors are owned by entities other than TSOs ~~or entities other than TSOs have a share in the investment costs of an interconnector~~, the reference to TSOs in this Article shall be understood as referring to those entities. ~~Where applicable, the sharing keys are calculated according to the exemption decision granted to these entities by relevant competent regulatory Authorities in accordance with Article 17 of Regulation (EC) 714/2009.~~

Article 89

Settlement related to price differences in an uncongested area

~~In aFRR-Platform or RR-Platform, where different prices in one uncongested area occur, the respective platform shall calculate the resulting rent as the product of the exchanged volume on the concerned border and the difference of the CBMPs. The resulting rent for each platform shall be equally distributed between the neighbouring participating TSOs of each concerned border.~~

Article 8910

Settlement of the intended energy exchanges as the result of the INP

~~9.1.~~ This Article applies only to the intended exchanges of energy as a result of explicit imbalance netting in the framework of the IN-Platform established in accordance with Article 22 of the EB ~~Regulation~~.

2. ~~For the settlement of exchanges of energy between TSOs as a result of the INP, the financial settlement period shall be 15 minutes starting at 00:00 market time. When all TSOs that are required to make the aFRR-Platform and the IN-Platform operational become participating TSOs of the aFRR-Platform, and no later than 1st January 2024, the financial settlement period shall be equal to the market time unit of the aFRR-Platform.~~

~~10.3.~~ The IN settlement price shall be determined for each participating TSO, per MWh of energy volumes netted through the INP and per financial settlement period.

~~11.4.~~ The IN settlement prices for each financial settlement period shall be calculated according to the following principles:

- (a) The values of avoided upward and downward aFRR activations reflect the prices of the balancing energy from aFRR which would have been activated by each participating TSO without the INP. The prices for balancing energy from aFRR are considered as reliable proxy for the value of avoided aFRR

¹ ~~Exemption decision granted to these entities by relevant competent Authorities in accordance with Article 17 of Regulation (EC) 714/2009.~~

² ~~Decisions on cross-border cost allocation granted to these entities by relevant competent Authorities or the Agency in accordance with Article 12(4) or 12(6) of Regulation (EC) 347/2013.~~

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activation. The value of avoided aFRR activation shall be calculated ex-post by each participating TSO for import and export directions separately.

- (b) The initial IN settlement price is the weighted average of all values (both upward and downward) of avoided aFRR activation of all participating TSOs, weighted with the imported and exported intended energy exchanges as the result of the INP. The initial IN settlement price is used to determine an initial settlement amount of each participating TSO.

12.5. The initial settlement amount of each participating TSO is defined as the initial IN settlement price multiplied by the difference between the amounts of imported and exported volumes of the respective participating TSO. The initial settlement amount of each participating TSO shall be used to determine an initial financial rent of each participating TSO.

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13.6. The initial rent of each participating TSO for each financial settlement period shall be calculated according to the following principles:

- (a) The opportunity costs of one participating TSO are defined for one settlement period as the import value of avoided upward aFRR activation multiplied by the imported volume minus the export value of avoided downward aFRR activation multiplied by exported volume of the respective participating TSO and respective settlement period.
- (b) The initial rent of each participating TSO is defined as a difference between:

i) the opportunity cost of each participating TSO, and

ii) the initial settlement amount of each participating TSO.

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14.7. In case of a negative initial rent of at least one participating TSO and the sum of all initial rents being positive in one settlement period, the initial IN settlement prices are subject to an adjustment. The negative initial rent(s) of the participating TSO(s) is shifted to zero. Meanwhile, positive initial rents are reduced proportionally while preserving the IN overall rent. The adjustment results in the following adjustment process in the relevant financial settlement periods for participating TSOs:

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- (a) The final IN settlement price of participating TSO(s) with a negative initial rent is calculated by dividing its opportunity cost by the difference between import and export netting energy volumes of the respective participating TSO(s) and the financial settlement period.
- (b) The share of positive initial rent is equal to the initial rent of each a participating TSO with a positive initial rent divided by the sum of all positive initial rents of each relevant financial settlement period.
- (c) The final settlement amount of participating TSOs with a positive initial rent is the initial settlement amount minus the sum of all negative initial rents times the share of positive initial rent of the respective participating TSO.
- (d) The final IN settlement price of participating TSOs with a positive initial rent is the final settlement amount divided by the difference between import and export netting energy volumes of the respective participating TSO.

15.8. In case of a positive initial rent of at least one participating TSO and the sum of all initial rents being negative in one financial settlement period, the initial IN settlement prices are subject to an adjustment. Positive rents of the participating TSOs are shifted to zero. Meanwhile, negative rents are reduced proportionally while preserving the IN overall rent. The adjustment results in the following adjustment process in the relevant financial settlement periods for participating TSOs:

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- (a) The final IN settlement price of participating TSO(s) with a positive initial rent are calculated by dividing its opportunity cost by the difference between import and export netting energy volumes of the respective participating TSO(s) and the financial settlement period.

- (b) The share of negative initial rent is equal to the initial rent of each a participating TSO with a negative initial rent divided by the sum of all negative initial rents of each relevant financial settlement period.
- (c) The final settlement amount of participating TSOs with a negative initial rent is the initial settlement amount plus the sum of all positive initial rents times the share of negative initial rent of the respective participating TSO.
- (d) The final IN settlement price of participating TSOs with a negative initial rent is the final settlement amount divided by the difference between import and export netting energy volumes of the respective participating TSO.

~~16.9.~~ In case the sum of all initial rents equals zero in one financial settlement period, all individual rents of the participating TSOs are shifted to zero. The final IN settlement price of each participating TSO is calculated by dividing its opportunity cost by the difference between import and export netting energy volumes of the respective participating TSO and the financial settlement period.

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~~17.10.~~ Participating TSOs with equal import and export netting energy volumes in a given settlement period are excluded from the calculations described in (6), (7) and (8). The final IN settlement price of participating TSOs excluded from the calculations described in (6), (7) and (8) of this Article is equal to the initial IN settlement price.⁷

~~18.11.~~ Where participating TSOs of the IN-Platform form an optimisation region for aFRR, the settlement amounts resulting from exchanges of energy between the TSOs of this optimisation region for aFRR as a result of the INP shall be distributed based on the aFRR demand and the balancing energy exchange resulting from the aFRP.

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~~Article 9101~~ Implementation ~~Timeline~~

~~1.~~ Each TSO shall implement this TSOs settlement methodology when implementing apply this TSOs settlement methodology SP once the TSO is connected to participates in the respective the European balancing platforms for the exchange of balancing energy or the operation of the INP, in accordance with the Articles 19, 20, 21 or 22 of the EB RegulationGL. Each TSO shall apply the relevant provisions of this TSOs settlement methodology once the TSO becomes participating TSO of the respective European balancing platform.

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~~2.~~ The TSOs participating in the RR-Platform in accordance with Article 19 of the EB Regulation shall implement and apply this TSOs settlement methodology for the balancing energy from RRP by 1st July 2022.

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~~Article 1012~~ Publication of the TSOs settlement methodology~~SP~~

The TSOs shall publish the TSOs settlement methodology SP without undue delay after ~~all NRAs have approved the proposal or~~ a decision has been taken by the European Union Agency for the Cooperation of Energy Regulators in accordance with Article ~~5(7)6(2).~~, ~~Article 6(1) and Article 6(2)~~ of the EB RegulationGL.

~~Article 1123~~ Language

The reference language for the TSOs settlement methodology SP shall be English. For the avoidance of doubt, where TSOs need to translate the TSOs settlement methodology SP into their national language(s), in the event of inconsistencies between the English version published by TSOs in accordance with Article 50 of the EB RegulationGL and any version in another language, the relevant TSOs shall be obliged to dispel any

inconsistencies by providing a revised translation of the [TSOs settlement methodology SP](#) to their relevant national regulatory authorities.

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