

European Network of Transmission System Operators for Electricity

All TSOs' proposal to further specify and harmonise imbalance settlement in accordance with Article 52(2) of the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

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DISCLAIMER

This document is released on behalf of the all transmission system operators ("TSOs") only for the purposes of the public consultation on the all TSOs' proposal to further specify and harmonise imbalance settlement in accordance with Article 52(2) of the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing ("imbalance settlement harmonisation proposal"). This version of the imbalance settlement harmonisation proposal does not in any case represent a firm, binding or definitive TSOs' position on the content.



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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 development of a proposal to further specify and harmonise imbalance settlement in accordance with Article 52(2) of the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (hereafter referred to as "EBGL"). This proposal is hereafter referred to as "imbalance settlement harmonisation proposal".
- (2) The imbalance settlement harmonisation proposal takes into account the general objective of imbalance settlement, as set in the recitals of the EBGL, to ensure that balance responsible parties support the system's balance in an efficient way and to incentivise market participants in keeping and/or helping to restore the system balance. The EBGL defines rules on imbalance settlement, ensuring that it is made in a non-discriminatory, fair, objective and transparent basis. To make balancing markets and the overall energy system fit for the integration of increasing shares of variable renewables, imbalance prices should reflect the real-time value of energy.
- (3) The objectives of the EBGL, as set in its Article 3(1) are, inter alia: (a) fostering effective competition, non-discrimination and transparency in balancing markets; and (b) enhancing efficiency of balancing as well as efficiency of European and national balancing markets.
- (4) The general principles of settlement processes, as set in the Article 44(1) of the EBGL, are, inter alia, to: (a) establish adequate economic signals which reflect the imbalance situation; (b) ensure that imbalances are settled at a price that reflects the real time value of energy; (c) provide incentives to balance responsible parties to be in balance or help the system to restore its balance; (d) facilitate harmonisation of imbalance settlement mechanisms; (f) avoid distorting incentives to balance responsible parties, balancing service providers and TSOs; (g) support competition among market participants; (h) provide incentives to balancing service providers to offer and deliver balancing services to the connecting TSO.
- (5) The Articles 52(2) and 52(4) of the EBGL constitute the legal basis for the imbalance settlement harmonisation proposal.
- (6) Article 52(2) of the EBGL requires all TSOs to develop a proposal that, pursuant to Article 5(2)(j) of the EBGL, is subject to approval by all relevant regulatory authorities in accordance with Article 27 of Directive 2009/72/EC, to further specify and harmonise, at least:
 - (a) the calculation of an imbalance adjustment pursuant to Article 49 of the EBGL and the calculation of a position, an imbalance and an allocated volume following one of the approaches pursuant to Article 54(3) of EBGL;
 - (b) the main components used for the calculation of the imbalance price for all imbalances pursuant to Article 55 of the EBGL, including, where appropriate, the definition of the value of avoided activation of balancing energy from frequency restoration reserves or replacement reserves;
 - (c) the use of single imbalance pricing for all imbalances pursuant to Article 55 of the EBGL, which defines a single price for positive imbalances and negative imbalances for each imbalance price area within an ISP;



- (d) the definition of conditions and methodology for applying dual imbalance pricing for all imbalances pursuant to Article 55 of the EBGL, which defines one price for positive imbalances and one price for negative imbalances for each imbalance price area within an ISP, encompassing:
 - i. conditions on when a TSO may propose to its relevant regulatory authority in accordance with Article 37 of Directive 2009/72/EC the application of dual pricing and which justification must be provided;
 - ii. the methodology for applying dual pricing.
- (7) Article 52(4) of the EBGL requires the imbalance settlement harmonisation proposal to provide an implementation date no later than eighteen months after approval by all relevant regulatory authority in accordance with Article 5(2) of the EBGL.
- (8) The imbalance settlement harmonisation proposal takes note of the following harmonised elements of imbalance settlement in accordance with EBGL:
 - (a) The imbalance period shall be harmonised to 15 minutes by three years after entry into force of the EBGL unless the TSOs of a synchronous area jointly request an exemption that is granted by the relevant regulatory authorities in accordance with Article 53 of the EBGL, or unless a regulatory authority grants a derogation of the harmonisation of the ISP in accordance with Article 62(1) and Article 62(2)(d) of the EBGL.
 - (b) There are no exemptions to balance responsibility in accordance with Article 18(6)(a) and Article 44(4) of EBGL.
 - (c) The final position of all balance responsible parties in self-dispatching models to be used in imbalance calculation is equal to the sum of the internal and external commercial trade schedules in accordance with Articles 54(3)(a) and 54(3)(b) of the EBGL.
 - (d) All balancing energy activated by each connecting TSO for at least frequency restoration process and reserve replacement process shall be adjusted to the concerned balance responsible parties assigned by the balancing service provider in its balancing energy bid, in accordance with Article 18(4)(d) and Article 49 of the EBGL.
- (9) The imbalance settlement harmonisation proposal takes note of the following provisions from the EBGL:
 - (a) The imbalance settlement harmonisation proposal distinguishes, where appropriate, between self-dispatching models and central dispatching models in accordance with Article 52(3) of the EBGL.
 - (b) The financial neutrality of each TSO and its ensurance by each relevant regulatory authority including additional settlement mechanisms with balance responsible parties separate from imbalance settlement in accordance with Articles 44(2) and 44(3) of the EBGL are not under the scope of the imbalance settlement harmonisation proposal.
 - (c) The imbalance settlement harmonisation proposal shall not address nor harmonise the rights of BRPs to change internal trade schedules after intraday cross-zonal gate closure time in accordance with EBGL Article 17(4).
 - (d) Terms and conditions for balancing service providers and balance responsible parties in accordance with Article 18 of the EBGL remain a national responsibility but have to respect the EBGL.



- (e) The imbalance settlement harmonisation proposal contributes to the objectives stated in Article 3 of the EBGL as follows:
- (f) The imbalance settlement harmonisation proposal contributes to the requirements of Articles 52 of the EBGL.
- (g) The imbalance settlement harmonisation proposal serves the objective of market operation, operational security and facilitation of demand side response and renewable energy sources in accordance with the EBGL Articles 3(1)(c), 3(1)(f) and 3(1)(g).
- (h) The imbalance settlement harmonisation proposal takes several steps in harmonising the imbalance settlement schemes across Europe in order to ensure consistency and a level playing field when integrating the balancing markets by providing an exhaustive list of the main components for the calculation of the imbalance price.
- (i) The imbalance settlement harmonisation proposal however respects operational differences and relations to other harmonisation proposals by allowing dual pricing when necessary for securing operational security.
- (j) The imbalance settlement harmonisation proposal ensures consistency in settlements by proposing a rational relation between implementation dates for 15-minute ISPs, dual pricing and dual position.
- (k) The specification of single position and single pricing for self-dispatch models serves to create a level playing field for small market players and renewables and is an important step when facilitating an efficient framework for aggregation and storage.
- (10) In conclusion, the imbalance settlement harmonisation proposal contributes to the general objectives of the EBGL.

SUBMIT THE FOLLOWING IMBALANCE SETTLEMENT HARMONISATION PROPOSAL TO ALL REGULATORY AUTHORITIES:



TITLE 1

General provisions

Article 1 Subject matter and scope

- (1) This imbalance settlement harmonisation proposal is the common proposal of all TSOs in accordance with Article 52(2) of the EBGL.
- (2) The proposal harmonisation imbalance settlement shall apply to all exisiting and future imbalance areas and to all imbalance settlement periods and all system states defined in Article 18 of Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereafter referred to as "SOGL"), except for those imbalance areas and imbalance settlement periods:
 - (a) for which market activities have been suspended;
 - (b) for which the concerned TSO has received approval from the relevant regulatory authority to apply rules for imbalance settlement and settlement of balancing energy and balancing capacity that deviate from the rules it applies for normal operations, pursuant to Article 39(1) of the Regulation (EU) 2017/2196.

Article 2 Definitions and interpretation

- For the purposes of the imbalance settlement harmonisation proposal, terms used in this document shall have the meaning of the definitions included in Article 2 of the EBGL, of Regulation (EC) 714/2009, Directive 2009/72/EC, Commission Regulation (EU) 543/2013, Commission Regulation (EU) 2015/1222, Commission Regulation (EU) 2017/1485 and Commission Regulation (EU) 2017/2196.
- (2) In addition, in this imbalance settlement harmonisation proposal, unless the context requires otherwise, the following terms shall have the meaning below:
 - (a) 'dual imbalance pricing' means that, for a given ISP in a given imbalance price area, the price for negative imbalance is not equal to the price for positive imbalance in sign and/or size
 - (b) 'scheduling unit' means a unit representing a power generation module, a demand facility or a group of power generating modules or demand facilities for which a position, an imbalance adjustment, an allocated volume, an imbalance and an imbalance settlement based on imbalance price formulation are determined in a central dispatching model;
 - (c) 'single imbalance pricing' means that, for a given ISP in a given imbalance price area, the price for negative imbalance and the price for positive imbalance are equal in sign and size.
- (3) In this imbalance settlement harmonisation proposal, unless the context requires otherwise:
 - (a) the singular indicates the plural and vice versa;
 - (b) the notation 'EUR/MWh' stands for the locally applicable currency unit per MWh;
 - (c) BRP stands for balance responsible party;
 - (d) BSP stands for balancing service provider;
 - (e) ISP stands for imbalance settlement period;



- (f) TSO stands for TSO or any third party entrusted with settlements in accordance with the EBGL Article 13;
- (g) the table of contents and headings are inserted for convenience only and do not affect the interpretation of this imbalance settlement harmonisation proposal;
- (h) 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.

TITLE 2

Proposals for specification and harmonisation of imbalance settlement

Article 3 The calculation of an imbalance adjustment

- (1) The imbalance adjustment to the concerned BRP shall be calculated by the TSO for each ISP as the netted volume of:
 - (a) all balancing energy volumes determined in accordance with the Article 18(5)(h) of the EBGL from all activated bids for that ISP that assign this balancing energy to the concerned BRP in accordance to the terms and conditions to BSPs with the Article 18(5)(e) of the EBGL;
 - (b) all volumes activated by each connecting TSO for that ISP for purposes other than balancing, that are assigned to the concerned BRP.
- (2) Further imbalance adjustment to the concerned BRP may be calculated by the TSO for each ISP as the netted volume of, at least:
 - (a) all energy volumes involved in the system defence plan instructions issued by the TSO in accordance with the Article 13(3) of the Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration (hereafter referred to as "NC ER");
 - (b) the energy involved in all allocated cross-zonal capacity that is curtailed by the connecting TSO on the external trade schedules of the concerned BRP for that ISP in accordance with the Article 72(1) of the Commission Regulation (EU) 2015/1222of 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereafter referred to as "CACM").
- (3) For each TSO applying a central dispatching model, the imbalance adjustment referred to in paragraph 1 shall be calculated by the TSO for each ISP for each scheduling unit of the concerned BRP. Each BRP can have several scheduling units with a separate imbalance adjustment pursuant to Article 49(2) of the EBGL.
- (4) The applied imbalance adjustment shall be reported by the TSO to the concerned BRP without delay and shall be finalised not later than set by national terms and conditions in accordance with Article 18(6)(h) of the EBGL.

Article 4

The calculation of a position, an imbalance and an allocated volume

(1) For each TSO applying a self-dispatching model, the calculation of a position shall follow the approach pursuant the Article 54(3)(a) of the EBGL, which states that BRPs shall have one single final position equal to the sum of its external and internal commercial trade schedules:



- (a) TSOs currently applying the calculation of single position per BRP pursuant the Article 54(3)(a) of the EBGL shall not change the current practice;
- (b) TSOs currently applying the calculation of two positions per BRP shall change to apply the calculation of single position per BRP pursuant Article 54(3)(a) of the EBGL, not later than the implementation of the imbalance settlement harmonisation proposal as stated in the Article 7(1) of this imbalance settlement harmonisation proposal.
- (2) The imbalance for each BRP over each ISP shall be calculated for each imbalance area by the connecting TSO, by application of the definition of imbalance pursuant the Article 2(8) of the EBGL, and by using the data delivered to the connecting TSO in accordance with Article 18(6)(d) of the EBGL.
- (3) The calculated imbalance over each ISP for each imbalance area shall be reported by the TSO to the concerned BRP without delay and shall be finalised not later than set by national terms and conditions in accordance with the Article 18(6)(h) of the EBGL, taking into account the rules for claiming the recalculation of the imbalance by a BRP in accordance with Article 54(4)(e) of the EBGL.
- (4) The allocated volume to each BRP shall be calculated by the TSO for each ISP over all injections and withdrawals for which the BRP is financially responsible in accordance with Article 17(2) of the EBGL, as the netted volume of:
 - (a) volumes metered per ISP;
 - (b) volumes assigned per ISP to that BRP over injections and withdrawals that are not metered with a granularity of ISP.

And where applicable, according to national terms and conditions:

- (c) all corrections to (a) and (b) related to volumes assigned per ISP to third parties.
- (5) The net allocated volume shall be reported to the concerned BRP by the TSO without delay and shall be finalised not later than set by national terms and conditions in accordance with Article 18(6)(h) of the EBGL.
- (6) For each TSO applying a central dispatching model, the final positions, imbalances and net allocated volumes shall be calculated by the TSO for each scheduling unit of the concerned BRP in accordance with Article 54 of the EBGL. Each scheduling unit shall have only one final position, one imbalance and one net allocated volume for each ISP and they shall be reported to the concerned BRP by the TSO without delay and shall be finalised no later than set by national terms and conditions in accordance with Article 18(6)(h) of the EBGL, taking into account the rules for claiming the recalculation of the imbalance by a BRP in accordance with Article 54(4)(e) of the EBGL.

Article 5

Main components used for the calculation of the imbalance price for all imbalances

- (1) Each TSO shall only use one or more of the following prices as main components for calculating the imbalance price for each of its imbalance areas belonging to a given imbalance price area, for each ISP and for each direction:
 - (a) the value of avoided activation of balancing energy from frequency restoration reserves or replacement reserves, in accordance with Article 6 of this imbalance settlement harmonisation proposal;



- (b) The price or prices, per direction, for the volume of balancing energy for frequency restoration process requested by this TSO for this ISP, in accordance with Article 47(2) of the EBGL, and fulfilled by standard or specific products, or by the integrated scheduling process;
- (c) Where applicable, the price or prices, per direction, for the volume of balancing energy for reserve replacement process activated by this TSO for this ISP, in accordance with Article 48(2) of the EBGL, and fulfilled by standard or specific products, or by the integrated scheduling process;
- (d) Where applicable, the price or prices, per direction for the volume of intended exchange of energy as a result of the imbalance netting process.
- (2) In case a TSO identifies the need for stronger incentives, the TSO may propose to its relevant regulatory authority to apply a scarcity or an incentivising component in imbalance pricing.
- (3) Each TSO may only use the following volumes for calculating the imbalance price for each of its imbalance areas belonging to a given imbalance price area, for each ISP and for each direction:
 - (a) the volume, per direction and product, of balancing energy for frequency restoration process requested by this TSO and fulfilled by standard or specific products, or by the integrated scheduling process;
 - (b) where applicable, the volume, per direction and product, of balancing energy for replacement process requested by this TSO and fulfilled by standard or specific products, or by the integrated scheduling process;
 - (c) where applicable, the volume of intended exchange of energy as a result of the imbalance netting process.

Article 6

Definition of the value of avoided activation of balancing energy from frequency restoration reserves or replacement reserves

- (1) Each TSO shall calculate the value of avoided activation from frequency restoration reserves or replacement reserves for each ISP during which there has been no activation of balancing energy in either direction for the imbalance price area in accordance with Articles 55(4)(b) and 55(5)(b) of the EBGL.
- (2) If the TSO uses dual imbalance pricing in accordance with Article 52(2)(d) of the EBGL, the TSO may calculate two values of avoided activation, one value for each direction, for each imbalance period during which there has been no activation of balancing energy in either direction in the imbalance price area. These two values may be equal.
- (3) For calculating the value or values of avoided activation in accordance with paragraph 1 or 2 of this Article, each TSO may use only the following prices and volumes:
 - (a) as connecting TSO:
 - i. the price or prices, per direction, for the volume of balancing energy for frequency restoration process available to this TSO for this ISP and fulfilled by standard or specific products, or by the integrated scheduling process;



- ii. where applicable, the price or prices, per direction, for the volume of balancing energy for replacement reserve process available to this TSO for this ISP and fulfilled by standard or specific products, or by the integrated scheduling process;
- iii. where applicable, the price or prices, per direction, for the intended exchange of energy available to this TSO to request for this ISP;
- (b) as requesting TSO, the price or prices, per direction, for the intended exchange of energy available to this TSO to request for this ISP.

Article 7 The use of single pricing

- (1) Each TSO shall implement the use of single imbalance pricing in accordance with Article 55 of the EBGL for all imbalances not later than application of the ISP of 15 minutes in accordance with Article 53 of the EBGL, with the exemption stated in paragraph 2 and, where applicable, taking into account a derogation granted in accordance with the Article 62(2)(d) of the EBGL.
- (2) Each TSO may apply dual pricing when a proposal from that TSO to its relevant NRA for the definition of conditions and methodology for applying dual pricing in accordance with the Article 8 of this imbalance settlement harmonisation proposal has been accepted by that NRA.

Article 8

Definition of conditions and methodology for applying dual pricing

- (1) Each TSO may propose to its relevant regulatory authority, in accordance with Article 37 of the Directive 2009/72/EC, the application and methodology of dual pricing for a given imbalance area for any ISP in which at least one of the following conditions is fulfilled:
 - (a) the ISP is longer than 15 minutes due to an exemption from the requirement pursuant the Article 53 of the EBGL or a derogation pursuant the Article 62(2)(d) of the EBGL;
 - (b) the TSO requests activation of both positive and negative balancing energy from frequency restoration reserves or replacement reserves for that given ISP;
 - (c) If the net sum of all imbalances in an imbalance area and where applicable, HV-DC that are not attributable to any BRP does not indicate a clear direction for that given ISP and therefore does not justify to set an incentive to one certain direction for that given ISP. The threshold for what is considered a clear indication of the direction shall be proposed by TSO and approved by the NRA in the national terms and conditions for BRPs according to Article 18(6) f and k of the EBGL;
 - (d) the specificities of the local electricity market or imbalance price area (such as in a small-scale market size, with a low number of BRPs causing the majority of the imbalances) require dual pricing in order to provide proper incentives to BRPs to be in balance, including:
 - i. the size of the electricity market in the local imbalance price is relatively small,
 - ii. a low number of BRPs cause a majority of the imbalances,



- iii. TSO observes high frequency of ISPs with the need for activation of balancing energy or intended exchange in both directions
- (e) the costs of balancing energy used to balance the system (excluding the balancing capacity) are entirely to be covered by the BRPs which cause the imbalances the single pricing method may not provide enough resources or may results in a deficit.
- (2) In case of application of dual pricing for a given ISP and a given imbalance area pursuant condition (b) or (c), the TSO shall calculate an imbalance price in one direction according to its methodology for calculating a single imbalance price for that ISP and that imbalance area; its methodology to calculate the imbalance price for the other direction shall not use any main components other than in accordance with this proposal Article 5.

TITLE 3

Final provisions

Article 9

Publication and implementation of the imbalance settlement harmonisation proposal

- (1) The TSOs shall publish the imbalance settlement harmonisation proposal without undue delay after all NRAs have approved the proposed imbalance settlement harmonisation proposal or a decision has been taken by the Agency for the Cooperation of Energy Regulators, in accordance with Article 7 of the EBGL.
- (2) Each TSOs shall implement the Articles of the imbalance settlement harmonisation proposal, relevant to their dispatching model, self-dispatching or central dispatching, in accordance with Article 52(4) of the EBGL, no later than eighteen months after approval by all relevant regulatory authorities.
- (3) Each TSO shall implement the Articles of the imbalance settlement harmonisation proposal, where appropriate, by amending its terms and conditions related to balancing in accordance to Article 18 of the EBGL, according to this imbalance settlement harmonisation proposal. Where appropriate, each TSO may propose to its relevant regulatory the application and methodology of dual pricing in accordance with Article 52(2)(d) of the EBGL under the conditions defined in this imbalance settlement harmonisation proposal, and after approval by its relevant regulatory authority amend its terms and conditions related to balancing in accordance to Article 18 of the EBGL accordingly.

Article 10 Language

The reference language for this imbalance settlement harmonisation proposal shall be English. For the avoidance of doubt, where TSOs need to translate this imbalance settlement harmonisation proposal into their national language(s), in the event of inconsistencies between the English version published by TSOs in accordance with Article 7 of the EBGL 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 imbalance settlement harmonisation proposal.