

**ACER Decision on the imbalance settlement harmonisation methodology:  
Annex I**

**Methodology for the harmonisation of the  
main features of imbalance settlement**

in accordance with Article 52(2) of Commission Regulation (EU)  
2017/2195 of 23 November 2017 establishing a guideline on electricity  
balancing

**15 July 2020**

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## Whereas

- (1) This document provides the methodology to further specify and harmonise imbalance settlement (hereafter referred to as the “imbalance settlement harmonisation methodology”) in accordance with Article 52(2) of the Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing (hereafter referred to as the “EB Regulation”)
- (2) The imbalance settlement harmonisation methodology takes into account the objectives of the EB Regulation, as set in the recitals and in Article 3 of the EB Regulation, and takes into account the general principles of the settlement processes, as set in Article 44 of the EB Regulation.
- (3) The imbalance settlement harmonisation methodology respects the EB Regulation and takes into account the following harmonised elements of imbalance settlement established within the EB Regulation:
  - (a) The imbalance area equals the scheduling area, except in case of a central dispatching model, where the imbalance area may constitute a part of the scheduling area.
  - (b) There are no exemptions to balance responsibility in accordance with Article 18(6)(a) and Article 44(4) of the EB Regulation.
  - (c) The final position of all BRPs 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 EB Regulation.
  - (d) In a central dispatching model, a BRP can have several final positions per imbalance area in accordance with Article 54(3)(c) of the EB Regulation.
  - (e) All balancing energy activated by each connecting TSO for frequency restoration process and reserve replacement process shall be included:
    - (i) in case of self-dispatching model, in the imbalance adjustment of the BRP or BRPs to whom the related balancing energy bid of the BSP has been assigned by the BSP itself to calculate this imbalance adjustment, in accordance with Article 18(4)(d) and Article 49 of the EB Regulation; or
    - (ii) in case of central dispatching model, in the imbalance adjustment of the scheduling units of the concerned BRPs to whom the related balancing energy bid of the BSP has been assigned by the BSP itself to calculate this imbalance adjustment, in accordance with Article 18(4)(d) and Article 49 of the EB Regulation.
  - (f) The use of single imbalance pricing per ISP for all imbalances in an imbalance price area in accordance with Article 52(2)(c) of the EB Regulation.
  - (g) Each relevant regulatory authority ensures that all TSOs under its competence do not incur economic gains or losses with regard to the financial outcome of the settlement processes pursuant to the Chapters 2, 3 and 4 of the Title V of the EB Regulation over the regulatory period as defined by the regulatory authority, and ensures that any positive or negative financial outcome as a result of the settlement processes pursuant to the Chapters 2, 3 and 4 of the Title V of the EB Regulation shall be passed on to network users in accordance with the applicable national rules, in accordance with Article 44(2) of the EB Regulation.
- (4) The imbalance settlement harmonisation methodology takes note of the following provisions from the EB Regulation:

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- (a) The imbalance settlement harmonisation methodology distinguishes, where appropriate, between self-dispatching models and central dispatching models in accordance with Article 52(3) of the EB Regulation.
  - (b) Each TSO may develop a proposal for an additional settlement mechanism with BRPs separate from imbalance settlement to settle the procurement costs of balancing capacity pursuant to the Chapter 5 of the Title V of the EB Regulation, administrative costs and other costs related to balancing in accordance with Article 44(3) of the EB Regulation.
  - (c) Terms and conditions for BSPs and BRPs in accordance with Article 18 of the EB Regulation remain a responsibility of each TSO but have to respect the EB Regulation and the methodologies pursuant to it.
  - (d) Each TSO shall set up the rules to calculate the imbalance price in accordance with Article 55(1) of the EB Regulation.
  - (e) A regulatory authority may, at the request of a TSO, grant the application of dual pricing for all imbalances, based on the conditions established in the imbalance settlement harmonisation methodology. The proposal for application of dual pricing shall include a justification pursuant to the provisions of the imbalance settlement harmonisation methodology.
  - (f) A regulatory authority may, at the request of a TSO or at its own initiative, grant the relevant TSOs a derogation from one or more provisions of the EB Regulation:
    - (i) the deadlines by which a TSO shall use the European platforms pursuant to Articles 19(5), 20(6), 21(6) and 22(5) of the EB Regulation;
    - (ii) the harmonisation of the ISP to 15 minutes in accordance with Article 53 of the EB Regulation;
    - (iii) the implementation of the requirements pursuant to Articles 45, 46, 47, 48, 49, 50, 54, 55 of the EB Regulation.
  - (g) The regulatory authorities of the relevant synchronous area may, at the joint request of the TSOs of the synchronous area, grant the exemption from the harmonisation of the ISP to 15 minutes in accordance with Article 53 of the EB Regulation.
  - (h) A TSO may delegate all or part of any tasks with which it is entrusted under the EB Regulation to one or more third parties according to Article 13(1) of the EB Regulation.
  - (i) A Member state, or where applicable a relevant regulatory authority, may assign tasks or obligations entrusted to TSOs under the EB Regulation to one or more third parties according to Article 13(4) of the EB Regulation. In the event that tasks and obligations are assigned to a third party by a Member State, or a regulatory authority, references to TSO in this imbalance settlement harmonisation methodology shall be understood as referring to the assigned entity in respect of the assigned tasks and obligations.
  - (j) TSOs responsible for developing a proposal for terms and conditions or methodologies, or regulatory authorities responsible for their adoption in accordance with Articles 5(2), 5(3) and 5(4) of the EB Regulation, may request amendments of those terms and conditions or methodologies, in accordance with Article 6(3) of the EB Regulation.
- (5) The imbalance settlement harmonisation methodology contributes to the objectives stated in Article 3 of the EB Regulation as follows:

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- (a) This imbalance settlement harmonisation 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 further specifying and harmonising the rules for the calculation of the BRP imbalance and the subsequent settlement.
- (b) This imbalance settlement harmonisation methodology enhances efficiency of balancing in accordance with the objective stated in Article 3(1)(b) of the EB Regulation by providing to the BRPs the right incentives to either be in balance or help the system to restore its balance, through the different options for calculating the imbalance price, in accordance with the objective stated in Article 3(1)(b) of the EB Regulation
- (c) This imbalance settlement harmonisation 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 of balancing services, by harmonising the rules for settling the BRP imbalance, based on prices that will be the outcome of the European platforms for the exchange of balancing energy.
- (d) This imbalance settlement harmonisation methodology contributes to the objective of consistent functioning of day-ahead, intraday and balancing markets as stated in Article 3(1)(d) of the EB Regulation, since the final commercial trade schedules are used for the calculation of the position of each BRP, which is then used as the basis for the calculation of the BRP imbalance.
- (e) This imbalance settlement harmonisation methodology contributes to the objectives stated in Article 3(1)(e) of the EB Regulation, since the settlement methodology is fair, objective, transparent and avoids undue barriers to entry for new BRPs as it does not favour a specific technology or portfolio. Moreover, this imbalance settlement harmonisation methodology is market based, since the calculation of the imbalance price is based on the balancing energy price including the outputs of the activation optimisation function of the European platforms for the exchange of balancing energy, once they are implemented.
- (f) The imbalance settlement harmonisation methodology serves the objective of facilitation of demand-side response and renewable energy sources in accordance with the EB Regulation Articles 3(1)(f) and 3(1)(g), by neither allowing nor introducing discriminatory requirements. Additionally, for self-dispatching models, the specification of single position per imbalance area and single imbalance pricing per imbalance price area serves to move towards a level playing field for small market players and renewables and is an important step when facilitating an efficient framework for aggregation and storage.

## **TITLE I**

### **General provisions**

#### **Article 1**

#### **Subject matter and scope**

1. The imbalance settlement harmonisation methodology shall apply to all imbalance areas and to all imbalance settlement periods and all system states defined in Article 18 of the Commission Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation (hereafter referred to as the “SO Regulation”), except for those imbalance areas and imbalance settlement periods for which market activities have been suspended, pursuant to Article 35 of the Commission Regulation (EU) 2017/2196 establishing a network code on electricity emergency and restoration (hereafter referred to as the “ER Regulation”). This is without prejudice to the national methodologies pursuant to Article 39(1) of the ER Regulation which may apply this imbalance settlement harmonisation methodology during imbalance settlement periods for which market activities have been suspended.
2. An imbalance price area, as delineated in each Member State’s terms and conditions for BRPs, shall be equal to one or more imbalance areas as delineated by a single TSO, or a combination of imbalance areas delineated by different TSOs within a bidding zone. Each imbalance price area shall be equal to a bidding zone, except in the case of a central dispatching model where an imbalance price area may constitute a part of a bidding zone, pursuant to Article 6(6) of the Electricity Regulation. In this case, the imbalance price areas can be aggregated for the calculation of the imbalance price, for the definition of the total system imbalances, and any reference to an imbalance price area can refer to an aggregate of imbalance price areas. Where more than one TSO belong to the same imbalance price area, and in case any of these TSOs has appointed one of the other TSOs to calculate the imbalance price for this imbalance price area, each reference to a TSO in Title III of this imbalance settlement harmonisation methodology shall be understood as reference to this appointed TSO.

#### **Article 2**

#### **Definitions and interpretation**

1. For the purposes of the imbalance settlement harmonisation methodology, terms used in this document shall have the meaning of the definitions included in Article 2 of the EB Regulation, of the Regulation (EU) 2019/943 (hereafter referred to as the “Electricity Regulation”), of the Directive (EU) 2019/944, the Commission Regulation (EU) No 543/2013, the Commission Regulation (EU) 2015/1222 establishing a guideline on capacity allocation and congestion management (hereafter referred to as the “CACM Regulation”), and in Article 3 of the SO Regulation and of the ER Regulation.
2. In addition, in the imbalance settlement harmonisation methodology, the following terms shall have the meaning below:
  - (a) '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;
  - (b) '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;
  - (c) ‘scheduling unit’ means a unit representing a power generation module, a demand facility or a group of power generating modules and/or demand facilities which is used in the integrated scheduling process to reflect locations of these assets when needed 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;

- (d) ‘value of avoided activation’ means a reference price that can be calculated by the TSO or TSOs of a given imbalance price area after the balancing energy gate closure time for a given ISP, at least when there is no balancing energy demand for that imbalance price area for that ISP or no balancing energy activation for that imbalance price area for that ISP.
3. In the imbalance settlement harmonisation methodology, 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) the table of contents and headings are inserted for convenience only and do not affect the interpretation of the imbalance settlement harmonisation methodology;
  - (d) any reference to legislation, regulations, directive, order, instrument, code or any other enactment shall include any modification, extension or re-enactment of it when in force;
  - (e) any reference to an Article without an indication of the document shall mean a reference to the imbalance settlement harmonisation methodology.

## **TITLE II**

### **Specification and harmonisation of imbalance calculation**

#### **Article 3**

##### **The calculation of a position**

1. Each connecting TSO applying a self-dispatching model shall calculate in each imbalance area for each ISP one single final position for each BRP as equal to the sum of its external and internal commercial trade schedules pursuant Article 54(3)(a) of the EB Regulation.
2. Each connecting TSO applying a central dispatching model shall calculate, in each imbalance area for each ISP, one single final position for each scheduling unit of each BRP as equal to the sum of scheduling unit’s external and internal commercial trade schedules pursuant to Article 54(3)(c) of the EB Regulation.

#### **Article 4**

##### **The calculation of an allocated volume**

1. Each connecting TSO shall calculate the total allocated volume to each BRP in case of self-dispatching model, or to each scheduling unit of concerned BRP in case of central dispatching model, in each imbalance area for each ISP, over all injections and withdrawals for which the BRP is financially responsible in accordance with Article 17(2) of the EB Regulation, as the netted volume of:
  - (a) the volumes or aggregated volumes that are metered with a granularity of the ISP for the connections to a TSO grid;
  - (b) the volumes or aggregated volumes that are metered with a granularity of the ISP for the connections to a DSO grid;
  - (c) the aggregated volumes that are not metered with a granularity of the ISP;
  - (d) where applicable, according to each Member State's terms and conditions for BRPs, all corrections to points (a), (b) and (c) of this paragraph that constitute the volumes assigned per

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ISP to market participants bearing balance responsibility or that have contractually delegated their balance responsibility to a BRP of their choice; and

- (e) where applicable, according to each Member State's terms and conditions for BRPs, the aggregated volumes related to all residual energies resulting from incorrect or incomplete allocations of the volumes of point (a) and (b) and resulting from the allocation of the volumes of point (c) on the basis of predefined profiles or grid losses.
2. When required by each Member State's terms and conditions for BRPs, the volumes or aggregated volumes in accordance with Articles 4(1)(b), 4(1)(c), 4(1)(d) and 4(1)(e) shall be delivered to the connecting TSO by the relevant DSO in accordance with Article 15(2) of the EB Regulation, or by other parties, if specified in the Member State's terms and conditions for BRPs pursuant to Article 18(6)(d) of the EB Regulation .
  3. Each connecting TSO shall report without undue delay the total allocated volume to the concerned BRP in case of self-dispatching model, or to each scheduling unit of concerned BRP in case of central dispatching model, and this allocated volume shall be finalised no later than set by each Member State's terms and conditions for BRPs in accordance with Article 18(6)(h) of the EB Regulation.

### **Article 5**

#### **The calculation of an imbalance adjustment**

1. Each connecting TSOs shall calculate the imbalance adjustment to the concerned BRP in each imbalance area for each ISP as the netted volume of:
  - (a) all activated volumes of balancing energy determined in accordance with Article 45 of the EB Regulation from all activated bids in that imbalance area for that ISP that assign these balancing energy bids to the concerned BRP;
  - (b) all volumes activated by the connecting TSO for that ISP for purposes other than balancing pursuant to Article 29(3) of the EB Regulation, that are assigned to the concerned BRP.
2. Additional imbalance adjustments to the concerned BRP shall, where relevant, be calculated by the connecting TSO in each imbalance area for each ISP as the netted volume of:
  - (a) all energy volumes involved in the system defence plan instructions as issued by the connecting TSO to significant grid users and defence service providers in accordance with the system defence plan procedures provided for in point (b) of Article 11(5) of the ER Regulation and specified in the Member State's terms and conditions for BRPs;
  - (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 Article 72(1) of the CACM Regulation;
  - (c) all energy volumes of further energy allocations between BRPs due to redispatching actions or to energy from renewable sources according to each Member State's terms and conditions for BRPs.
3. For each connecting TSO applying a central dispatching model, the imbalance adjustment referred to in Articles 5(1) and 5(2) shall be calculated by the connecting TSO in each imbalance area for each ISP for each scheduling unit of the concerned BRP, pursuant to Article 49(2) of the EB Regulation and for each position in accordance with Article 3(2).
4. Each connecting TSO shall report without undue delay the applied imbalance adjustment to the concerned BRP in case of self-dispatching model, or to each scheduling unit of concerned BRP in case of central

dispatching model, and this imbalance adjustment shall be finalised no later than set by each Member State's terms and conditions for BRPs in accordance with Article 18(6)(h) of the EB Regulation.

## **Article 6**

### **The calculation of an imbalance**

1. Each connecting TSO shall calculate, in each imbalance area for each ISP, the imbalance of each BRP in case of self-dispatching model (or to each scheduling unit of concerned BRP in case of central dispatching model), as the energy volume representing the difference between the allocated volume attributed to that BRP (or to that scheduling unit in case of central dispatching model), calculated in accordance with Article 4, and the final position of that BRP (or to that scheduling unit in case of central dispatching model), calculated in accordance with Article 3, including any imbalance adjustment applied to that BRP (or to that scheduling unit in case of central dispatching model), calculated in accordance with Article 5, within a given ISP.
2. Each connecting TSO shall report without undue delay the calculated imbalance to each BRP in case of self-dispatching model, or to each scheduling unit of concerned BRP in case of central dispatching model, over each ISP for each imbalance area, to the concerned BRP and this imbalance calculation shall be finalised no later than set by each Member State's terms and conditions for BRPs in accordance with Article 18(6)(h) of the EB Regulation, taking into account the rules for claiming the recalculation of the imbalance by a BRP in accordance with Article 54(4)(e) of the EB Regulation.

## **TITLE III**

### **Specification and harmonisation of imbalance price calculation**

## **Article 7**

### **The use of single imbalance pricing**

1. Each connecting TSO shall implement the use of single imbalance pricing in accordance with Article 55 of the EB Regulation for all imbalances, as described in paragraphs 3 to 5 below, except for the specific or all ISPs where a regulatory authority approves the application of dual imbalance pricing in accordance with Article 11.
2. Each connecting TSO shall use the following main components for the determination of the imbalance price for each ISP, its imbalance price area(s) and each direction: the imbalance price for positive imbalance and/or the imbalance price for negative imbalance calculated pursuant to Article 9, the VoAA pursuant to Article 10 and the direction of the imbalance pursuant to Article 8.
3. Each connecting TSO shall set the imbalance price for all imbalances for each ISP and its imbalance price area(s) in one of the following ways depending on the activation of balancing energy from frequency restoration reserves or replacement reserves for its satisfied balancing energy demand:
  - (a) In case only positive balancing energy from frequency restoration reserves or replacement reserves has been activated, this TSO shall set the imbalance price for all imbalances for this ISP equal to the imbalance price for negative imbalance as calculated in Article 9(1).
  - (b) In case only negative balancing energy from frequency restoration reserves or replacement reserves has been activated, this TSO shall set the imbalance price for all imbalances for this ISP equal to the imbalance price for positive imbalance as calculated in Article 9(2).

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- (c) In case both positive and negative balancing energy from frequency restoration reserves or replacement reserves has been activated, this TSO shall establish for this ISP the direction of the total system imbalances, in accordance with Article 8(2), and:
    - (i) in case of imbalance price area shortage, this TSO shall set the imbalance price for all imbalances for the specific ISP and its imbalance price area(s) equal to the imbalance price for negative imbalance as calculated in Article 9(1), while
    - (ii) in case of imbalance price area surplus, this TSO shall set the imbalance price for all imbalances for the specific ISP and imbalance price area equal to the imbalance price for positive imbalance as calculated in Article 9(2).
  - (d) In case of no positive or negative balancing energy from frequency restoration reserves or replacement reserves has been activated, this TSO shall set the imbalance price for all imbalances for this ISP equal to the imbalance price for positive or negative imbalance as calculated in Articles 9(1) and 9(2) respectively.
4. In addition to the provisions in Article 55(3) of the EB Regulation, all TSOs in a given imbalance price area shall jointly determine the imbalance price for:
- (a) each ISP;
  - (b) this imbalance price area;
  - (c) each imbalance direction.

### **Article 8**

#### **Establishing the direction of the total system imbalances and the character of a BRP imbalance in an imbalance price area**

1. When determining the direction of the total system imbalances the connecting TSO shall calculate for its imbalance price area(s), for a specific ISP, and for each direction the sum of the volumes per direction listed in Article 9(5) and it may include one or more of the volumes per direction listed below:
  - (a) the volume or volumes of unintended exchanges of energy;
  - (b) volume for the satisfied balancing energy demand of the connecting TSO or connecting TSOs of this imbalance price area for this ISP as calculated in the European platform defined in accordance with the Article 22 of the EB Regulation;
  - (c) volume resulting from the frequency containment process;
  - (d) volume resulting from remedial actions pursuant to Article 22 , paragraph 1, letters (h) and (j) and paragraph 2, of the SO Regulation;
  - (e) volume resulting from Inter-TSO assistance in emergency state pursuant to Article 14 of the ER Regulation.
2. This TSO shall establish for the specific ISP, the direction of the total system imbalances of its imbalance price area(s) based on the difference between the aggregated volumes for each direction, as calculated in paragraph 1. The total system imbalances for a specific ISP and imbalance price area shall alternatively:
  - (a) have a negative sign, indicating an imbalance price area shortage, when the aggregated volume for positive direction is greater in absolute value than the aggregated volume for negative direction,

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- (b) have a positive sign, indicating an imbalance price area surplus, when the aggregated volume for negative direction is greater in absolute value than the aggregated volume for positive balancing direction,
  - (c) be equal to zero, indicating an imbalance price area in balance.
3. TSOs of the same LFC area that calculate the frequency restoration control error as the frequency deviation pursuant to Article 143(2)(b) of the SO Regulation, may determine the total system imbalances as specified in paragraphs 1 and 2, for sets of their imbalance price areas.
  4. The calculated character of the imbalance to each BRP in case of self-dispatching model, or to each scheduling unit of concerned BRP in case of central dispatching model, for each ISP, for each imbalance price area, shall be alternatively:
    - (a) non-aggravating imbalance, when the BRP imbalance is opposite to the direction of the total system imbalances;
    - (b) aggravating imbalance, when the BRP imbalance has the same direction as the total system imbalances;
    - (c) in case no direction can be established both positive and negative BRP imbalances shall be deemed as aggravating.

### **Article 9**

#### **Determination of the imbalance price for positive and negative imbalance**

1. Each connecting TSO shall use for the imbalance price for negative imbalance, the weighted average approach and/or the maximum price approach, based on the prices and respective volumes listed in paragraphs 3 and 5 for positive activated balancing energy. Each connecting TSO may also use additional components listed in paragraph 6 for determining the imbalance price for negative imbalance, as long as the boundary condition of Article 55(4) of the EB Regulation is respected. For the calculation of the boundary condition, in case it is not always fulfilled, based on the imbalance price calculation approach, each connecting TSO shall use all the available prices and the respective volumes for positive activated balancing energy listed in paragraphs 3 and 5 to calculate the weighted average price for positive activated balancing energy pursuant to Article 55(4)(a) of the EB Regulation. In case there is no positive balancing energy activated for this connecting TSO, then the value of avoided activation of balancing energy calculated in accordance with Article 10, shall be the lower bound for the imbalance price for negative imbalance.
2. Each connecting TSO shall use for the imbalance price for positive imbalance, the weighted average approach and/or the minimum price approach, based on the prices and respective volumes listed in paragraphs 3 and 5 for negative activated balancing energy. Each connecting TSO may also use additional components listed in paragraph 6 for determining the imbalance price for positive imbalance, as long as the boundary condition of Article 55(5) of the EB Regulation is respected. For the calculation of the boundary condition, in case it is not always fulfilled, based on the imbalance price calculation approach, each connecting TSO shall use all the available prices and the respective volumes for negative activated balancing energy listed in paragraphs 3 and 5 to calculate the weighted average price for negative activated balancing energy pursuant to Article 55(5)(a) of the EB Regulation. In case there is no negative balancing energy activated for this TSO, then the value of avoided activation of balancing energy calculated in accordance with Article 10, shall be the upper bound for the imbalance price for positive imbalance.

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3. The prices for determining the imbalance price for a given ISP, imbalance price area and per direction are:
  - (a) where applicable, the price or prices, for the satisfied balancing energy demand of connecting TSO or connecting TSOs of this imbalance price area for this ISP, as calculated by the activation optimisation function of the European platform defined in accordance with the Article 19 of the EB Regulation;
  - (b) where applicable, the price or prices, and product for the satisfied balancing energy demand of the connecting TSO or connecting TSOs of this imbalance price area of this ISP, as calculated by the activation optimisation function of the European platform defined in accordance with the Article 20 of the EB Regulation;
  - (c) where applicable, the price or prices, for the satisfied balancing energy demand of connecting TSO or connecting TSOs of this imbalance price area for this ISP, as calculated by the activation optimisation function of the European platform defined in accordance with the Article 21 of the EB Regulation;
  - (d) where applicable, the price or prices for balancing energy resulting from the activation of specific products for frequency restoration or reserve replacement process;
  - (e) where applicable, the price or prices for balancing energy resulting from the activation of balancing energy bids that do not correspond to standard or specific products or to integrated scheduling process bids, for frequency restoration or reserve replacement process;
  - (f) where applicable, the price or prices resulting from the integrated scheduling process.
4. Each connecting TSO shall use one or more of the balancing energy prices listed in paragraph 3 for calculating the imbalance price taking into account that:
  - (a) Each connecting TSO shall use the prices in accordance with points (a), (b) and (c) of paragraph 3 in case the TSO is participating in the corresponding platform.
  - (b) Each connecting TSO shall use the prices for specific products in accordance with point (d) of paragraph 3 in case the TSO is using the specific products for balancing.
  - (c) Each connecting TSO shall use the prices for integrated scheduling process in accordance with point (f) of paragraph 3 in case the TSO is using the integrated scheduling process.
5. Each connecting TSO shall use the following volumes per direction for determining the imbalance prices pursuant to paragraphs 1 and 2 in case it is using the weighted average approach or needs to calculate the boundary condition:
  - (a) volume, for the satisfied balancing energy demand of the connecting TSO or connecting TSOs of this imbalance price area for this ISP, as calculated by the activation optimisation function of the European platform defined in accordance with the Article 19 of the EB Regulation;
  - (b) volume and product, for the satisfied balancing energy demand of the connecting TSO or connecting TSOs of this imbalance price area for this ISP, as calculated by the activation optimisation function of the European platform defined in accordance with the Article 20 of the EB Regulation;
  - (c) volume, for the satisfied balancing energy demand of the connecting TSO or connecting TSOs of this imbalance price area for this ISP, as calculated by the activation optimisation function of the European platform defined in accordance with the Article 21 of the EB Regulation;

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- (d) volumes, for the satisfied balancing energy demand of the connecting TSO or connecting TSOs of this imbalance price area for this ISP of the activations of specific products for frequency restoration process or reserve replacement process;
  - (e) volumes, per ISP of the activations of balancing energy bids that do not correspond to standard or specific products or to integrated scheduling process bids, for frequency restoration process or reserve replacement process;
  - (f) the volumes resulting from the integrated scheduling process.
6. The connecting TSO or connecting TSOs of an imbalance price area may propose in the Member State's terms and conditions for BRPs the conditions and a methodology to calculate additional components, to be included in the imbalance price calculation. In that case, this TSO or these TSOs shall propose one or more of the following additional components:
- (a) a scarcity component to be used in nationally defined scarcity situations;
  - (b) an incentivising component to be used to fulfil nationally defined boundary conditions;
  - (c) a component related to the financial neutrality of the connecting TSO.
7. Where the relevant regulatory authorities have approved in the terms and conditions for BRPs the conditions and the methodology to apply one or more additional components in accordance with paragraph 6, the value of the additional components shall be published by the TSO for those ISPs in which the additional components were applied no later than publication of the final imbalance settlement price.

### **Article 10**

#### **The value of avoided activation of balancing energy from frequency restoration reserves or replacement reserves**

1. The value of avoided activation shall:
- (a) set the boundary conditions to the imbalance price in accordance with the Articles 55(4)(b) and 55(5)(b) of the EB Regulation;
  - (b) set, where relevant, the boundary conditions to the imbalance price for non-aggravating imbalance in accordance with Article 11(4)(b)(i); and
  - (c) be calculated taking into account the general settlement principles in accordance with Article 44(1) of the EB Regulation.
2. Each connecting TSO shall calculate the value of avoided activation from frequency restoration reserves or replacement reserves for at least 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 EB Regulation.
3. If the TSO applies dual imbalance pricing in accordance with Article 52(2)(d) of the EB Regulation, 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.
4. For calculating the value or values of avoided activation in accordance with paragraph 2 or 3, each connecting TSO may only, if relevant, use the following prices:

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- (a) the bid price or bid prices, per direction, for balancing energy for frequency restoration process available to this TSO for this ISP;
- (b) the bid price or bid prices, per direction, for balancing energy for replacement reserve process available to this TSO for this ISP.

### **Article 11**

#### **Definition of conditions and methodology for applying dual imbalance pricing**

1. Each connecting TSO may propose to its relevant regulatory authority the application of dual imbalance pricing in an imbalance price area based on one of the following conditions, as required by Article 52(2)(d)(i) of the EB Regulation, where relevant:
  - (a) For specific ISPs in which the TSO subsequently requests activation of both positive and negative balancing energy from frequency restoration reserves, if dual imbalance pricing is justified as a mitigation measure to avoid negative effects on FRCE target parameters in accordance with Article 128 of the SO Regulation, frequency stability in accordance with Article 3(34) of the SO Regulation and/or the ability to maintain power flows within the power flow limits in accordance with Article 32(1) and (2) of the SO Regulation as a result of BRPs acting on price incentives.
  - (b) For specific ISPs in which imbalance price calculated according to Article 55(3) of the EB Regulation taking into account the main components according to Article 9 and the price calculated by activation optimisation function does not provide a locally adequate incentive in individual ISPs as the imbalance area is near balanced. In such ISPs, dual pricing is justified as a mitigation measure to avoid negative effects on FRCE target parameters. TSOs applying the dual pricing based on this condition shall detail in terms and conditions the threshold subject to approval of the relevant regulatory authority within which the imbalance area is considered near balanced.
  - (c) For specific ISPs in which the component in accordance with Article 9(6)(a) is larger than EUR zero (0) /MWh.
  - (d) For central dispatching model for specific ISPs where the application of single imbalance pricing does not provide correct incentives to scheduling units to respect unit commitment and dispatch instructions issued by a TSO within the integrated scheduling process in order to ensure a secure system operation.
  - (e) For all ISPs where the imbalance settlement period is longer than or equal to 30 minutes due to an exemption from the requirement pursuant to Article 53 of the EB Regulation or based on derogation in accordance with Article 62(2)(d) of the EB Regulation, if dual imbalance pricing is justified as a mitigation measure to improve incentives to BRPs and avoid oscillations that may occur in case the self-regulation response by BRPs, which is linked to the longer ISP, overcompensates for the system imbalance which in turn triggers an opposite self-regulation response.
2. The proposal for application of dual pricing pursuant to paragraph 1 shall provide a justification for applying dual pricing, including at least an assessment on:
  - (a) the negative impacts of not applying the dual pricing as proposed by this TSO in terms of operational security;
  - (b) other possible impacts of applying the dual pricing as proposed by this TSO.

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3. A justification pursuant to paragraph 2 shall be based on operational and economic reasoning and criteria taking into account:
  - (a) the objectives of the EB Regulation pursuant to Article 3 of the EB Regulation,
  - (b) the objectives of the SO Regulation pursuant to Article 4(2) of the SO Regulation, and
  - (c) the general settlement principles of the EB Regulation pursuant to Article 44 of the EB Regulation.
4. In case the relevant regulatory authority approves the application of dual imbalance pricing pursuant to Article 52(2)(d)(i) of the EB Regulation, the TSO shall calculate an imbalance price:
  - (a) for aggravating imbalances in accordance with the imbalance price calculated pursuant to Article 9;
  - (b) for non-aggravating imbalances in accordance to either:
    - (i) the methodology for calculation of the value of avoided activation pursuant to Article 10, and including, where relevant the components pursuant to the Article 9(6); or
    - (ii) the imbalance price calculated pursuant to Article 9.

## **TITLE IV**

### **Final provisions**

#### **Article 12**

#### **Publication and implementation of the imbalance settlement harmonisation methodology**

1. The TSOs shall publish the imbalance settlement harmonisation methodology without undue delay after a decision has been taken by the European Union Agency for the Cooperation of Energy Regulators, in accordance with Article 7 of the EB Regulation.
2. Each TSO shall implement the Articles of the imbalance settlement harmonisation methodology, relevant to their dispatching model, self-dispatching or central dispatching, in accordance with Article 52(4) of the EB Regulation, no later than eighteen months after approval.
3. Following the European report on integration of balancing markets published by ENTSO-E, pursuant to Article 59(1) of the EB Regulation, two years after the implementation deadline of the European Platforms for the exchange of balancing energy pursuant to Articles 20(6) and 21(6) of the EB Regulation, all TSOs shall assess the need for further harmonisation of the imbalance settlement, in line with the objectives of Article 3 of the EB Regulation, based on the assessment of the consequences and possible distortions due to non-harmonisation, pursuant to Article 59(3)(i) of the EB Regulation. The TSOs shall publish this assessment and invite stakeholders to submit comments on that. One year after the publication of this European report, all TSOs shall submit their final assessment together with the comments received by the stakeholders to all regulatory authorities and ACER.

#### **Article 13**

#### **Language**

The reference language for this imbalance settlement harmonisation methodology shall be English. For the avoidance of doubt, where TSOs need to translate this imbalance settlement harmonisation methodology into

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their national language(s), in the event of inconsistencies between the English version published by TSOs in accordance with Article 7 of the EB Regulation and any version in another language, the relevant TSOs shall, in accordance with national legislation, provide the relevant national regulatory authorities with an updated translation of the imbalance settlement harmonisation methodology.