

**DECISION No 01/2020**  
**OF THE EUROPEAN UNION AGENCY**  
**FOR THE COOPERATION OF ENERGY REGULATORS**

(text rectified by corrigendum of 10 August 2021)

**of 24 January 2020**

**on the methodology to determine prices for the balancing energy that  
results from the activation of balancing energy bids**

THE EUROPEAN UNION AGENCY FOR THE COOPERATION OF ENERGY  
REGULATORS,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators<sup>1</sup>, and, in particular, Article 6(10)(b) thereof,

Having regard to Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing<sup>2</sup>, and, in particular, Article 5(7) thereof,

Having regard to the outcome of the consultation with the concerned national regulatory authorities and transmission system operators,

Having regard to the favourable opinion of the Board of Regulators of 22 January 2020, delivered pursuant to Article 22(5)(a) of Regulation (EU) 2019/942,

Whereas:

**1. INTRODUCTION**

- (1) Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (the ‘EB Regulation’) laid down a range of requirements for electricity balancing, platforms for the exchange of balancing energy, as well as pricing and settlement of balancing energy. These requirements include the development of a methodology (‘pricing methodology’) to determine

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<sup>1</sup> OJ L158, 14.6.2019, p. 22.

<sup>2</sup> OJ L312, 23.11.2017, p. 6.

prices for balancing energy that result from the activation of balancing energy bids for the frequency restoration process pursuant to Articles 143 and 147 of Regulation (EU) 2017/1485 (the ‘SO Regulation’), and the reserve replacement process pursuant to Articles 144 and 148 of the same Regulation.

- (2) Pursuant to Articles 4(1) and 5(2)(f) of the EB Regulation, all transmission system operators (‘TSOs’) are required to develop a common proposal for the pricing methodology in accordance with Article 30 of the EB Regulation and submit it to all regulatory authorities for approval. In turn, according to Article 5(6) of the EB Regulation, all regulatory authorities should reach an agreement and take a decision on the proposal for the pricing methodology within six months after the receipt of the proposal by the last regulatory authority. When all regulatory authorities fail to reach an agreement within the six-month period or upon their joint request, the Agency, pursuant to Article 5(7) of the EB Regulation, is called upon to adopt a decision concerning the all TSOs’ proposal in accordance with Article 6(10)(b) of Regulation (EU) 2019/942.
- (3) The present Decision of the Agency follows from the request of all the regulatory authorities that the Agency adopts a decision on the proposal for the pricing methodology, which all TSOs submitted to all regulatory authorities for approval and on which all regulatory authorities could not agree on. Annex I to this Decision sets out the pricing methodology pursuant to Article 30(1) of the EB Regulation, as decided by the Agency.

## **2. PROCEDURE**

### **2.1. Proceedings before regulatory authorities**

- (4) Article 30(1) of the EB Regulation requires all TSOs to submit a proposal for the pricing methodology by twelve months after the entry into force of the EB Regulation. As the EB Regulation entered into force on 18 December 2017, all TSOs were required to submit a proposal for the pricing methodology by 18 December 2018.
- (5) On 12 September 2018, all TSOs published for public consultation the draft ‘*All TSOs’ proposal on methodologies for pricing balancing energy and cross-zonal capacity used for the exchange of balancing energy or operating the imbalance netting process pursuant to Article 30(1) and Article 30(3) of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing*’<sup>3</sup>. The consultation lasted from 12 September 2018 until 13 November 2018.
- (6) On 18 December 2018, all TSOs submitted to all regulatory authorities an ‘*All TSOs’ proposal on methodologies for pricing balancing energy and cross-zonal capacity*

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3

[https://consultations.entsoe.eu/markets/ebgl-art30-supporting\\_documents/180912\\_All%20TSOs%20Balancing%20Energy%20Pricing%20Proposal%20.pdf](https://consultations.entsoe.eu/markets/ebgl-art30-supporting_documents/180912_All%20TSOs%20Balancing%20Energy%20Pricing%20Proposal%20.pdf)

*used for the exchange of balancing energy or operating the imbalance netting process pursuant to Article 30(1) and Article 30(3) of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing*<sup>4</sup> (the ‘Proposal’). The last regulatory authority received the Proposal on 11 February 2019.

## 2.2. Proceedings before the Agency

- (7) In a letter<sup>5</sup> dated 24 July 2019 and received by the Agency on the same day, the Chair of the Energy Regulators Forum<sup>6</sup>, on behalf of all regulatory authorities, informed the Agency that they jointly agreed to request the Agency to adopt a decision on the Proposal pursuant to Article 5(7) of the EB Regulation.
- (8) The letter was accompanied by a document titled *‘Non-paper of all Regulatory Authorities agreed at the Energy Regulators’ Forum on the all TSOs’ proposal on methodologies for pricing balancing energy and cross-zonal capacity used for the exchange of balancing energy or operating the imbalance netting process pursuant to Article 30(1) and Article 30(3) of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing*<sup>7</sup>, explaining the diverging views among all regulatory authorities. According to this document, there are five main points of disagreement among all regulatory authorities: (a) the length of the balancing energy pricing period, (b) the pricing of the bids from the standard product for balancing energy from frequency restoration reserves with manual activation, (c) the general principles of marginal pricing, (d) the impact of system constraints<sup>8</sup> activations on the balancing energy price, and (e) the definition of the uncongested area.
- (9) The non-paper suggested that the Agency further reviews the following issues:
- (a) the consistent use of terminology;
  - (b) the accurate definition of the cross-border marginal price;
  - (c) the need for making the annual report, specified in Article 3 of the Proposal, publicly available;

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<sup>4</sup> <https://www.acer.europa.eu/en/Electricity/MARKET-CODES/ELECTRICITY-BALANCING/07%20Pricing/Action%201%20-%20Pricing%20proposal.pdf>

<sup>5</sup> <https://www.acer.europa.eu/en/Electricity/MARKET-CODES/ELECTRICITY-BALANCING/07%20Pricing/Action%202%20-%20Pricing%20referral%20to%20ACER%20letter.pdf>

<sup>6</sup> The all regulatory authorities’ platform to consult and cooperate for reaching a unanimous agreement on NEMO’s and TSO’s proposals.

<sup>7</sup> <https://www.ceer.eu/documents/104400/-/-/7d9b8fd4-26ea-7a55-4e6d-4ec6ab51060c>

<sup>8</sup> The term “system constraints” is used by the TSOs in the Proposal to label activations for purposes other than balancing; the methodology pursuant to Article 29(3) of the EB Regulation will describe all possible activation purposes.

- (d) the alignment of the balancing energy pricing period with the market time unit;
- (e) the inclusion of technical price limits.
- (10) On 28 October 2019, the Agency launched a public consultation on the Proposal, inviting all market participants to provide their comments by 18 November 2019. The summary and evaluation of the responses received are presented in Annex II to this Decision.
- (11) Moreover, the Agency closely cooperated with all regulatory authorities and TSOs and further consulted on the amendments to the Proposal during teleconferences and meetings and through exchanges of draft amendments. In particular, the following procedural steps were taken and, in general, before each interaction the Agency shared with the regulatory authorities and TSOs new versions of the draft amended proposal:
- 24 and 25 July 2019: teleconference with all regulatory authorities;
  - 27-28 August 2019: discussion with all regulatory authorities in the framework of the Agency's Electricity Balancing Taskforce ('EB TF');
  - 2 September 2019: teleconference with all regulatory authorities;
  - 10 and 11 September 2019: teleconference with all regulatory authorities and TSOs;
  - 18 and 19 September 2019: discussion with all regulatory authorities in the framework of the EB TF;
  - 27 September 2019: teleconference with all regulatory authorities and TSOs;
  - 4 October 2019: teleconference with all regulatory authorities;
  - 9 and 10 October 2019: teleconference with all regulatory authorities and TSOs;
  - 23 October 2019: technical workshop with all regulatory authorities and TSOs,
  - 24 October 2019: discussion with all regulatory authorities in the framework of the EB TF;
  - 12 November 2019: discussion with all regulatory authorities in the framework of the EB TF;
  - 13 November 2019: public workshop with all stakeholders including regulatory authorities and TSOs;
  - 15 November 2019: teleconference with all regulatory authorities and TSOs;
  - 19 November 2019: discussion with all regulatory authorities in the framework of the Agency's Electricity Working Group ('AEWG');

- 22 November 2019: teleconference with all regulatory authorities and TSOs;
- 27 November 2019: teleconference with all regulatory authorities and TSOs;
- 29 November 2019: teleconference with all regulatory authorities and TSOs;
- 4-5 December 2019: discussion with all regulatory authorities in the framework of the EB TF;
- 6 December 2019: teleconference with all regulatory authorities and TSOs;
- 11 December: discussion with all regulatory authorities at the Board of Regulators' meeting;
- 12 December 2019: teleconference with all regulatory authorities and TSOs.

### **3. THE AGENCY'S COMPETENCE TO DECIDE ON THE PROPOSAL**

- (12) Pursuant to Article 5(7) of the EB Regulation, where the regulatory authorities have not been able to reach an agreement or upon their joint request, the Agency shall adopt a decision concerning the submitted terms and conditions or methodologies within six months in accordance with Article 6(12)(a) of Regulation (EU) 2019/942.
- (13) According to the letter of the Chair of the all Energy Regulators Forum dated 24 July 2019, all regulatory authorities agreed jointly to request the Agency to adopt a decision on the Proposal pursuant to Article 5(7) of the EB Regulation. At the time of this request, all regulatory authorities were competent to jointly refer the Proposal to the Agency, since it was made before the expiry of the six-month deadline after receiving the Proposal (i.e. 11 August 2019).
- (14) Therefore, under the provisions of Article 5(7) of the EB Regulation and Article 6(10) of Regulation (EU) 2019/942, the Agency became responsible to adopt a decision concerning the submitted Proposal by the referral received on 24 July 2019.

### **4. SUMMARY OF THE PROPOSAL**

- (15) The Proposal consists of the following elements:
- (f) The 'Whereas' section and Articles 1 and 2, which include general provisions, the scope of application and the definitions;
  - (g) Article 3, which includes the general principles for determining the prices for the balancing energy that results from the activation of balancing energy bids for the frequency restoration and the reserve replacement processes;
  - (h) Article 4, which includes additional provisions for the pricing of standard replacement reserve ('RR') balancing energy product bids;

- (i) Article 5, which includes additional provisions for the pricing of standard manual frequency restoration reserve ('mFRR') balancing energy product bids with scheduled activation type;
- (j) Article 6, which includes additional provisions for the pricing of standard mFRR balancing energy product bids with direct activation type;
- (k) Article 7, which includes additional provisions for the pricing of standard automatic frequency restoration reserve ('aFRR') balancing energy product bids;
- (l) Article 8, which includes additional provisions for pricing for system constraint purpose activations;
- (m) Article 9, which describes the pricing of the cross-zonal capacity; and
- (n) Articles 10 to 12, which covers the implementation timeline, the publication of the methodology and the language.

## **5. SUMMARY OF THE OBSERVATIONS RECEIVED BY THE AGENCY**

### **5.1. Initial observations of all regulatory authorities**

- (16) According to the letter of the Chair of the all Energy Regulators Forum of 24 July 2019, all regulatory authorities jointly observed shortcomings in the Proposal.
- (17) All regulatory authorities agreed that the Proposal should be amended in order to ensure a consistent use of terminology, to specify the determination of cross-border marginal prices for balancing energy and to set harmonised maximum and minimum balancing energy prices.
- (18) Further, all regulatory authorities did not agree on several features of the Proposal, and most significantly:
  - (a) All regulatory authorities could not agree on the period over which the price should be established for the standard aFRR balancing energy product and the standard mFRR balancing energy product with direct activation type, with respect to the requirements of Article 30(1) and Chapter 2 of Title V of the EB Regulation.
  - (b) All regulatory authorities could not agree on whether a different remuneration of mFRR standard products based on activation type – scheduled and direct activation type – gives correct incentives to balancing service providers ('BSPs').
  - (c) All regulatory authorities could not agree on the general principles of marginal pricing and whether or not it is correctly applied in the Proposal, with respect to the requirements of Articles 47 and 48 of the EB Regulation.
  - (d) All regulatory authorities could not agree on the determination of the balancing energy price with respect to whether or not sufficient incentives are provided to BSPs within the settlement of the balancing energy, in accordance with the requirements of Articles 30(1)(a), 30(1)(d) and 47 of the EB Regulation, or if additional incentivizing components are necessary.

- (e) All regulatory authorities could not agree on the inclusion of system constraints in the balancing energy price calculation with respect to the requirements of Article 30(1)(b) of the EB Regulation.
- (f) All regulatory authorities could not agree on the definition of the uncongested area with respect to whether or not multiple cross-border marginal prices can exist in a single uncongested area when applying the marginal pricing principle.

## **5.2. Consultation of all regulatory authorities and TSOs**

- (19) The Agency, in close cooperation and consultation with all regulatory authorities and TSOs as detailed in paragraph (10) above, and beyond the above-mentioned issues:
  - (a) Tried to clarify the dynamics of the direct activations of the standard mFRR products to identify the impact of different pricing rules on the incentives for BSPs and on the market in general;
  - (b) Regarding the length of the pricing period for the standard aFRR balancing energy product, further discussed the several options and assessed them against the requirements of the EB Regulation;
  - (c) Tried to identify all possible purposes for which the TSOs may activate balancing energy bids for system constraints, assessed their impact on the cross-border marginal price and clarified the process for updating the available cross-zonal capacities;
  - (d) Identified the need to define the technical price limits and whether they should be within the pricing methodology.

## **5.3. Public consultation**

- (20) On 28 October 2019, the Agency launched a public consultation on the Proposal, inviting all market participants to provide their comments by 18 November 2019. The consultation document asked stakeholders to provide views on five topics, which were deemed as the most relevant: (i) the length of the balancing energy pricing period, (ii) the impact of the cross-zonal capacity update on the balancing energy price, (iii) the pricing of the standard mFRR balancing energy product bids, (iv) the inclusion of technical price limits, and (v) the pricing standard aFRR balancing energy product bids during their de-activation.
- (21) The summary and evaluation of the responses received are presented in Annex II to this Decision. It presents the summary of the stakeholders' concerns regarding some of the above mentioned issues and, in particular, on the questions, as well as initial views and proposals made by the Agency:
  - (a) The majority of stakeholders agreed with the alignment of the term “balancing energy pricing period” with the term “market time unit”, although some agreed to this alignment only if the period is set to 15 minutes. Regarding the suggested length of the balancing energy pricing period for the standard aFRR balancing energy product, the majority of stakeholders was in favour of the 15 minutes, but

many stakeholders also expressed support for a length equal to the optimisation cycle.

- (b) Regarding the impact of the system constraints on the cross-border marginal price, the majority of stakeholders agreed with the principle that the marginal price should reflect the actually available cross-zonal capacity. Some stakeholders questioned whether the activation for system constraint purposes as described in the Proposal should be considered as an update of the available cross-zonal capacities or treated differently.
- (c) Regarding the pricing of the standard mFRR product with two activation types, the majority of the stakeholders agreed with the Proposal. Some stakeholders asked for a single price for both activation types, while others questioned the need for having both activation types, suggesting that the standard mFRR product should only be of the scheduled activation type.
- (d) Regarding the inclusion of the technical price limits, the majority of stakeholders agreed with the Agency's proposal to define these limits in the methodology and that they should be set to 100,000 €/MWh and -100,000 €/MWh. Other stakeholders had general concerns on the introduction of price limits and some, although in favour of the notion of price limit, found the value proposed by the Agency too high.
- (e) Regarding the pricing of the standard aFRR balancing energy product bids during their deactivation, the majority of stakeholders supported that the rule should be the same in all cases, i.e. the price being the highest between the cross-border marginal price and the bid price. They also underlined the importance of providing a solid justification for deviating from the marginal pricing rule.
- (f) Regarding other topics, some stakeholders raised the problem of converting non-standard bids into standard bids, as well as the pricing of the standard balancing energy product bids, which result from the integrated scheduling process. One stakeholder questioned the principle of marginal pricing, since the requirements for BSPs are different in the different Member States.

## **6. ASSESSMENT OF THE PROPOSAL**

### **6.1. Legal framework**

- (22) Articles 4(1), 4(2) and 5(2)(f) of the EB Regulation require all TSOs to provide a proposal for a methodology to determine prices for the balancing energy that results from the activation of balancing energy bids for the frequency restoration process pursuant to Articles 143 and 147 of the SO Regulation, and the reserve replacement process pursuant to Articles 144 and 148 of the same Regulation in accordance with Article 30(1) of the EB Regulation. This proposal also needs to define a methodology for the pricing of cross-zonal capacity used for exchange of balancing energy or for operating the imbalance netting process. This proposal must be submitted to all regulatory authorities for their approval.

(23) Article 30 of the EB Regulation sets out the requirements for the development of a proposal for pricing the balancing energy and the cross-zonal capacity. In this context, all TSOs are required to develop a proposal for pricing the balancing energy and the cross-zonal capacity no later than twelve months after the entry into force of the EB Regulation. This proposal for pricing the balancing energy and the cross-zonal capacity needs to be consulted in accordance with Article 10 of the EB Regulation.

(24) As a general requirement, Article 5(5) of the EB Regulation requires that the proposal for terms and conditions or methodologies includes a proposed timescale for their implementation and a description of their expected impact on the objectives of the same Regulation.

## **6.2. Assessment of the legal requirements**

### **6.2.1. Assessment of the requirements for the development and for the content of the Proposal**

#### *6.2.1.1. Development of the Proposal*

(25) The Proposal fulfils the requirements of Articles 4(1), 4(2) and 5(2)(f) of the EB Regulation as all TSOs jointly developed a proposal for pricing the balancing energy and the cross-zonal capacity and submitted it for approval to all regulatory authorities.

(26) The procedure for the development of the Proposal did not respect the requirements of Article 30(1) of the EB Regulation as the Proposal, while submitted by most TSOs by 18 December 2018, which is within twelve months after entry into force of the EB Regulation, was submitted by the last TSO on 11 February 2019. This is in breach of the twelve-month submission deadline. The Proposal was subject to consultation as described in Section 2.1 above.

#### *6.2.1.2. Proposed timescale for implementation*

(27) The Proposal fulfils the requirements of Article 5(5) of the EB Regulation with regard to the proposed timescale for implementation of the pricing methodology.

(28) Article 10 of the Proposal determines the implementation deadline for the Proposal to be set to the implementation deadlines of the European platforms, in accordance with Articles 19, 20, 21 and 22 of the EB Regulation, as the scope of the pricing methodology covers all four European balancing platforms. However, during the Agency's consultation with the regulatory authorities and the TSOs, it became evident that the Agency's amendments on the Proposal have an impact on the design of the European platform pursuant to Article 19 of the EB Regulation.

(29) In particular, as mentioned in section 6.2.3 below, the Agency removed from the Proposal the provisions providing for different pricing of balancing energy bids activated for system constraints, and the two runs approach for the implementation of this concept. However, the implementation framework for the European platform for the exchange of balancing energy from RR ('RR-Platform'), pursuant to Article 19(1)

of the EB Regulation, which was submitted by the TSOs performing the reserve replacement process, pursuant to Part IV of the SO Regulation ('RR TSOs'), and approved by the concerned regulatory authorities in January 2019, already includes the two runs approach; hence sufficient time should be provided to the RR TSOs to change the design and implement the single run process in the RR-Platform. During the Agency's consultation, the TSOs presented a roadmap with the milestones for implementing this change on the RR-Platform, arguing that the RR-Platform should be operational with this new design by 1 July 2022. Therefore, the Agency added a second paragraph to Article 9 of the Proposal, specifying that the TSOs participating in the RR-Platform should implement and apply the pricing methodology for the standard RR balancing energy product bids by 1 July 2022.

*6.2.1.3. Description of the expected impact on the objectives of the EB Regulation*

- (30) The recitals in the Proposal provide a description of the expected impact of the implementation framework on the objectives of the EB Regulation. All the objectives set in Article 3 of the EB Regulation are addressed in the recitals, but the Agency improved the description of the impact on the objectives where it was inadequate.

*6.2.2. Assessment of the marginal pricing requirement for the pricing of balancing energy*

- (31) Pursuant to Article 30(1)(a) of the EB Regulation, the pricing methodology should be based on marginal pricing (pay-as-cleared). To this end, the Proposal introduces the concept of cross-border marginal price and specifies the general principles for its calculation in Article 3 of the Proposal, whereas its calculation is determined for each balancing energy standard product in Articles 4 to 7 of the Proposal. The cross-border marginal price shall reflect the equilibrium that clears the market per direction, per MTU, uncongested area and where applicable per direction, as revealed by applying the uniform price auction principle. To this end, the Proposal fulfils the requirement of Article 30(1)(a) of the EB Regulation. However, there are some specific cases in the Proposal, where pricing at a price different than the marginal one is introduced. These cases are further addressed in the paragraphs below.

*6.2.2.1. Pricing during the deactivation phase*

- (32) The proposal specifies two cases where the marginal pricing principle is not fully respected. The first case is described in the general principles of the methodology (i.e. Articles 3(5) and 3(6) of the Proposal). These provisions specify that if, for a specific Market Time Unit ('MTU') and uncongested area, a positive (or negative) balancing energy bid has a higher (or lower respectively) price than the cross-border marginal price of this uncongested area for the specific MTU, then it should be remunerated to its bid price. The only case when this could happen is when standard aFRR balancing energy product bids are deactivated but continue to deliver balancing energy due to the deactivation time. The volume during the deactivation phase is part of the accepted bid volume from standard aFRR balancing energy product bids. The Agency considers that the deactivation of standard aFRR balancing energy product bids is a technical constraint that cannot be avoided because of the fast nature of activation and deactivation of bids. Since the deactivated bids are not selected/cleared, they are not

taken into account in the price formation, and in that sense the pay-as-cleared principle is not violated. However, in order to make it more explicit that this specific rule applies only to standard aFRR balancing energy product bids, the Agency removed this provision from the general principles of the pricing methodology and inserted it in the specific provisions for the pricing of the standard aFRR balancing energy product bids.

- (33) The second case where the marginal pricing principle is not fully respected is specified in Article 7(6) of the Proposal, which defines the additional provisions for the pricing of standard aFRR balancing energy product bids. These provisions specify that if the delivered volume from standard aFRR balancing energy product bids has no bid price for the respective validity period, each TSO will ensure the pricing of this bid in accordance with the national terms and conditions for BSPs pursuant to Article 18(5) of the EB Regulation. This case also refers to the accepted bid volume from standard aFRR balancing energy product bids during the deactivation phase. However, while the first case described in the previous paragraph covers the deactivation that takes place during the validity period of the bid (i.e. the bid was activated and then deactivated within the same imbalance settlement period ('ISP')), this second case covers the deactivation after the end of the ISP related to the validity period of the bid (i.e. the bid was activated in one ISP and its deactivation still delivers balancing energy in the next ISP, where the bid price is no longer valid).
- (34) The Agency understands that these two cases are essentially the same, except that, in the second case, the standard aFRR balancing energy product bids do not have a bid price to be used for pricing according to the principle established for the first case. Therefore, given that the activation (preceding the deactivation) was determined by the bid's price, the accepted volume is regarded as having the bid price, even though the bid validity period has expired. Therefore, the Agency amended the Proposal to align the pricing of the two cases, and it specified that, during the deactivation of aFRR bid, the accepted volume of such bid will be settled at a price equal to the cross-border marginal price of the given MTU or its bid price used for activation of such bid, whichever is higher in case of positive balancing energy, or whichever is lower in case of negative balancing energy, respectively.
- (35) The Agency also consulted stakeholders on that matter. The majority of stakeholders agreed with the proposed alignment of the two cases. Some stakeholders also commented that the first case is specific only because the proposed aFRR MTU is shorter than the validity period of the bid (this issue is assessed in section 6.2.4. below).

#### *6.2.2.2. Pricing of standard mFRR balancing energy product bids with direct activation*

- (36) Article 6 of the Proposal specifies the pricing rule for the mFRR balancing energy product bids with direct activation type ('DA mFRR bids'). The activation of DA mFRR bids takes place in a continuous process after the activation of the mFRR balancing energy product bids with scheduled activation type ('SA mFRR bids') is finished. The Proposal defines cross-border marginal price for DA mFRR bids as follows:

- (a) For delivery during the mFRR MTU in which the DA mFRR bid was activated: the price is the marginal price of all selected DA mFRR bids (being the highest bid price of all selected DA mFRR bids for positive balancing energy, or the lowest for negative balancing energy, respectively) or the cross-border marginal price from the SA mFRR auction, whichever is higher in case of positive balancing energy, or lower in case of negative balancing energy, respectively.
- (b) For delivery in the next mFRR MTU: the price is the marginal price of all selected DA mFRR bids (being the highest bid price of all selected DA mFRR bids for positive balancing energy, or the lowest for negative balancing energy, respectively) or the cross-border marginal price from the activation of the SA mFRR bids of the next ISP, whichever is higher in case of positive balancing energy, or lower in case of negative balancing energy, respectively.
- (37) As mentioned in paragraph 18 above, the regulatory authorities had different views on whether the pricing rule described in the Proposal respects the principle of marginal pricing. The common merit order list for the activation of the DA mFRR bids is constructed for each mFRR MTU after the selection by the AOF of the SA mFRR bids is finished and includes all DA mFRR bids of the specific mFRR MTU that were not selected as part of the activation of the SA mFRR bids. The selection of the DA mFRR bids is then performed on a continuous basis, but using the same common merit order list, which is updated after each algorithm run to include only the DA mFRR bids that are not yet activated. In that sense, the whole process for activating the DA mFRR bids can be regarded as a single clearing, hence the pay-as-cleared principle requires one price per mFRR MTU and not a different one per algorithm run within the same mFRR MTU. Therefore, the Agency considers that, with regard to the pricing of DA mFRR bids, the Proposal fulfils the requirement of Article 30(1)(a) of the EB Regulation.
- (38) The Agency consulted stakeholders on this topic and, as mentioned in paragraph 21(c), the majority of them agreed with the approach proposed by the TSOs, although some of them raised concerns on the need to have one product with two different activation types. However, when having two different products or only one product with one of the two activation types is not possible, stakeholders agreed that the proposed pricing is the most efficient one.
- (39) Stakeholders also expressed concerns that the marginal price established for the SA mFRR bids should apply also for the DA mFRR bids such that all the mFRR bids would receive the same marginal price. The Agency explored this option and concluded that it would not respect one of the basic rules for marginal pricing, which is that the marginal pricing applies as long as the merit order list is respected, but where some bids are being skipped (for whatever reason), these bids should not affect the marginal price. The SA mFRR bids and the DA mFRR bids are actually two different types of standard products and the common merit order for the activation of the SA mFRR bids includes both the SA mFRR bids and the DA mFRR bids, whereas the common merit order list for the activation of the DA mFRR bids includes only the DA mFRR bids. This means that, in the activation of the DA mFRR bids, all the SA mFRR bids are being skipped even though their bid price may be lower than the

marginal price of the DA mFRR bids. Therefore, establishing one single price for the SA mFRR bids and the DA mFRR bids, based on the marginally activated DA mFRR bids, would reject some DA mFRR bids, which are in or at the money. For this reason, the Agency considers that the pricing of the SA mFRR bids is compliant with the marginal pricing principle.

6.2.3. Assessment of the impact of activations for other than balancing purposes on the pricing of balancing energy

- (40) Pursuant to Article 30(1)(b) of the EB Regulation, the pricing methodology should define how the activation of balancing energy bids activated for purposes other than balancing affects the balancing energy price, while also ensuring that at least balancing energy bids activated for internal congestion management shall not set the marginal price of balancing energy.
- (41) Article 8 of the Proposal includes specific pricing provisions for system constraints activations purposes. According to this Article, TSOs propose two optimisation runs to distinguish bids activated for balancing energy and bids activated for system constraints. In the first optimisation, all balancing energy bids are activated for both purposes together and the second optimisation (which is performed only for the purpose of identification of bids activated for system constraints) selects the bids only for balancing purposes. The difference between the two optimisations, i.e. the bids that are not selected in the second optimisation, are identified as the bids activated for system constraints. The Proposal specifies marginal pricing for bids activated for balancing purposes and pay-as-bid for bids activated for system constraint purposes.
- (42) As mentioned in paragraph (18)(e), the regulatory authorities could not conclude on whether the approach proposed by the TSOs meets the requirements of the EB Regulation, with respect to the pricing of bids activated for purposes other than balancing and whether marginal pricing or pay-as-bid pricing should be applied. In the annex of their letter sent to the Agency (see paragraphs (7) and (8) above), they included arguments in favour of both options.
- (43) The definition of activation purposes is outside the scope of the pricing methodology and it will be established within the methodology pursuant to Article 29(3) of the EB Regulation. Nevertheless, the Agency understands that, regardless of the outcome of this future methodology, the balancing platforms will be designed in a way that will allow the activation of balancing energy for balancing purposes but also for other purposes. Without prejudice to the outcome of the methodology pursuant to Article 29(3) of the EB Regulation, the Agency considers that the fundamental principle for pricing balancing energy bids activated through the platform is the merit order principle according to which all bids activated on the merit order should receive the same marginal price. If the balancing platforms allow the activation of balancing energy bids for different purposes and if these activations are respecting the merit order, it is not possible to distinguish exactly which bids have been activated for which purpose.

- (44) Article 8 of the Proposal implicitly assumes that the cheapest bids on the merit order are to be activated for balancing purposes and the most expensive bids are activated for system constraints. However, this choice is completely arbitrary and without justification, since any bid activated on the merit order can serve either balancing purpose or system constraint purpose. In this context, different pricing of bids that are activated by respecting the same merit order (i.e. from the same pool of resources) would result in an unjustified discrimination of bids, because there is no fundamental difference between the bids activated for balancing purpose or system constraints. The design of balancing energy platforms implies that the same pool of balancing energy bids can be used for balancing and possibly for other purposes subject to the methodology pursuant to Article 29(3) of the EB Regulation. Hence, the activation for one purpose always affects the supply of bids for the other purpose and, thereby, the price for the other purpose is always affected. For this reason, all bids activated from this pool of resources should receive the same marginal price.
- (45) In contrast, if balancing energy bids were activated for internal congestion, this would require the activation of specific bids at a specific location. Consequently, the bids outside the merit order would need to be activated (i.e. the merit order activation would no longer be respected) and such bids should not define the marginal price because this would result in the paradoxical situation that some bids would not be activated even though their price are below the marginal price (i.e. in the money). For this reason, Article 30(1)(b) of the EB Regulation specifies that balancing energy bids activated for internal congestion management shall not set the marginal price of balancing energy. No such requirement is provided for the case when bids are activated for cross-zonal congestion management purpose. Therefore, Article 30(1)(b) of the EB Regulation is consistent with the Agency's understanding that the only reason for deviating from the marginal pricing principle is when the activation of bids does not respect the merit order. However, in the context of EU balancing platforms, there will be no activation for the purpose of internal congestion management, since the only locational information the EU balancing platforms handle is the load-frequency control area or the bidding zone; no locational information with respect to the exact location within the load-frequency control area or the bidding zone is provided with the bids.
- (46) The Agency, therefore, removed from the Proposal the provisions providing for different pricing of balancing energy bids activated for system constraints. These provisions were replaced by a provision specifying that if the EU platforms are used for activations other than balancing and if these activations respect the merit order principle, one single cross-border marginal price shall be established for all activation purposes. This clarification aims to address the requirement of Article 30(1)(b) of the EB Regulation.
- 6.2.4. Assessment of the requirement for the number of balancing energy prices per ISP
- (47) Pursuant to Article 30(1)(c) of the EB Regulation, the pricing methodology should establish at least one price of balancing energy for each ISP. Article 3 of the Proposal defines the general principles for the pricing methodology, where it is specified that, for each balancing energy product and for each MTU, at least one cross-border

marginal price is calculated. Namely, for standard RR, mFRR with scheduled activation type, and aFRR balancing energy product bids, one cross-border balancing energy price is calculated per MTU, while for standard mFRR balancing energy product bids with direct activation type, at least one cross-border balancing energy price is calculated per MTU (it could be two, if in the same MTU there are activations in both directions). Additionally, the MTU is equal to the ISP for RR and mFRR, while it is shorter than the ISP for the aFRR (the duration of the ISP is an integer multiple of the duration of the aFRR MTU). Therefore, the Proposal fulfils the requirement of Article 30(1)(c) of the EB Regulation.

6.2.5. Assessment of the requirement for balancing energy price to give correct price signals and incentives to market participants

(48) Pursuant to Article 30(1)(d) of the EB Regulation, the pricing methodology should give correct price signals and incentives to market participants. The Proposal fulfils this requirement by ensuring the application of the marginal pricing principle, as concluded in section 6.2.2 above.

6.2.5.1. *Pricing of directly activated mFRR balancing energy product*

(49) Article 6 of the Proposal specifies the pricing rule for the DA mFRR bids. As described in paragraph (36) above, when the DA mFRR cross-border marginal price for positive balancing energy for a given mFRR MTU is lower (or higher for negative balancing energy respectively) than the SA mFRR cross-border marginal price for the given mFRR MTU, the DA mFRR bids are priced at the SA mFRR cross-border marginal price. Some stakeholders questioned this approach during the public consultation, as mentioned in paragraph (20)(c) above, and suggested one price for both activation types, this being the highest of the two for positive balancing energy and the lowest for negative balancing energy, respectively.

(50) The TSOs, in their explanatory document, explain that “[i]n comparison to other investigated combinations of the price components this solution is considered to provide the best trade-off between the conflicting objectives of low balancing cost and sufficient incentive to submit bids for direct activation. Furthermore, this option would not influence prices of other quarter hours in the case of congestions.”

(51) The Agency acknowledges that, since there is one standard mFRR balancing energy product with two different activation types, correct price signal should be provided to BSPs to ensure that they provide balancing energy for both activation types. The standard DA mFRR product, being the most valuable one, is also valued higher by the TSOs, hence the pricing method should ensure that its price is at least as attractive as the one for the SA mFRR product. In case of a single cross-border marginal price for both activation types, the BSPs would have no incentive to offer their balancing energy to the DA mFRR product. Therefore, the Agency understands that the two activation types should be remunerated differently, with the DA mFRR balancing energy product bids being remunerated at least at the price of the SA mFRR balancing energy product bids, and it assesses that the rule described in the Proposal with respect

to the pricing of the DA mFRR balancing energy product bids fulfils the requirement of Article 30(1)(d) of the EB Regulation.

*6.2.5.2. Pricing for system constraint activation purpose*

- (52) As described in section 6.2.3 above, Article 8 of the Proposal specifies the pricing for system constraints activations, where the marginal pricing is applied as a rule only to a sub-group of activated bids, and the rest of them are priced with the pay-as-bid rule. This outcome results from the fact that the available cross-zonal capacity for the calculation of the cross-border marginal price is not taken into account.
- (53) The Agency understands that the available cross-zonal capacity, being one of the fundamentals affecting the price signals, should be taken into account when calculating the cross-border marginal balancing energy price. Pursuant to Article 37(1) of the EB Regulation, the TSOs should continuously update the availability of the cross-zonal capacity for the exchange of balancing energy or for operating the imbalance netting process. Furthermore, pursuant to Article 31(1)(f) of the EB Regulation, the activation optimisation function should take into account the available cross-zonal capacity. In order to fulfil the requirement for marginal pricing, the cross-border marginal price is defined as the outcome of the activation optimisation function. Hence, the updated cross-zonal capacity should be taken into account in the cross-border marginal price calculation. The approach proposed by the TSOs does not respect this principle, since the calculation of the cross-border marginal price does not reflect the fundamentals and does not provide the correct price signals.
- (54) Therefore, the Proposal does not fulfil the requirement of Article 30(1)(d) of the EB Regulation and the Agency amended it by deleting the additional provisions for the pricing of system constraint purpose activations in Article 8 of the Proposal.

*6.2.5.3. Duration of the aFRR MTU*

- (55) Article 7 of the Proposal sets the aFRR MTU equal to the optimisation cycle of the activation optimisation function of the European platform for the exchange of energy from aFRR ('aFRR-Platform').
- (56) During the Agency's consultation with all regulatory authorities, one regulatory authority expressed concerns that if the aFRR MTU is set to the optimisation cycle of the activation optimisation function, this would distort incentives both on BSPs, to provide bids and actually deliver activated volumes, and on BRPs to support system balance. According to this regulatory authority, the incentives on both BSPs and BRPs are best achieved if the imbalance price is equal to the balancing energy price and the latter being equal to the marginal price of either the positive balancing energy or the negative balancing energy. According to the same regulatory authority, another concern with the aFRR MTU equal to the optimisation cycle is that it could incentivise BSPs to add mark-ups above their marginal costs as a price per optimisation cycle pays each bid effectively a different average price for the volume delivered per ISP. The concerned regulatory authority, therefore, proposed that the aFRR MTU is set to 15 minutes and the cross-border marginal price is the outcome of a "multi-round

auction” determining the final marginal price after the end of the 15 minutes period per uncongested area and per direction. This regulatory authority is of the view that, in such a setup, positive and negative balancing energy would be paid the marginal price equal to the respective selected bid (maximum or minimum depending on whether it is positive or negative balancing energy) if activated in the same 15 minute period. According to this regulatory authority, such an approach would be compliant with Article 30(1)(c) of the EB Regulation as it provides either one (positive or negative) or two (positive and negative) prices per ISP.

- (57) While the Agency acknowledges that the aFRR MTU equal to the optimisation cycle does not provide perfect incentives for BRPs to support system balance, it notes that perfect incentives for BRPs to support system balance can only be achieved if all balancing energy products across different processes receive the same marginal price, which is equal to the imbalance price. However, such a cross-product pricing methodology would not respect the requirement for marginal pricing (pay-as-cleared) and would distort the price signals across platforms, leading to questionable liquidity issues for each common merit order list.
- (58) As regards the concerns with mark-ups, the Agency does not share these concerns since the aFRR-Platform is designed to perform an auction and market clearing in each optimisation cycle and marginal pricing from each auction should ensure sufficient competition among BSPs in each aFRR MTU to prevent BSPs from adding a mark-up to their bid prices as this would risk the acceptance of such bid.
- (59) Regarding the signals the pricing methodology should provide, the Agency finds it important that aFRR prices are fully consistent with the aFRR cross-zonal exchanges (i.e. exchanges should always occur from low price areas to high price areas). Since aFRR cross-zonal exchanges are determined within each optimisation cycle, the prices driving these exchanges must be determined by the same optimisation. As noted by the TSOs in their explanatory document “*[i]f the [balancing energy pricing period] is 15 minutes, a discrepancy is introduced between the “activation”-congestion (established every optimisation cycle) and the “price”-congestions (15 minutes).*” In case the aFRR prices would be corrected after the end of the ISP, the consistency between prices and exchanges would no longer be ensured, hence aFRR balancing energy could often be exchanged from high price area to low price area because the prices that determined the optimal exchanges would not be the same prices that would be paid for those exchanges. In the context of integrated balancing market, this would question the very basis of market integration, which is to facilitate efficient cross-zonal exchanges.
- (60) Moreover, in case of 15 minutes aFRR MTU, the Agency considers that the price signal is distorted due to the intertemporal character of pricing. Since the aFRR demand changes in every optimisation cycle, different standard aFRR balancing energy product bids are selected in every clearing. With a 15 minutes aFRR MTU, a clearing in a specific moment would have an impact on the pricing of standard aFRR balancing energy product bids activated as a result of a different clearing. Apart from the distorted signal, this is not consistent with the principles of the pricing methodologies applied in the other timeframes.

- (61) Finally, the Agency is of the opinion that setting aFRR MTU to 15 minutes would not be compliant with Article 30(3)(a) of the EB Regulation, which requires that the methodology for pricing of cross-zonal capacity should reflect market congestion. Since Article 9 of the Proposal sets the cross-zonal capacity price as the difference between the cross-border marginal prices, the only way for the cross-zonal capacity price to reflect market congestion is if it is ensured that the balancing energy price also reflects market congestion. To this end, it is important that market congestion, which is defined in Article 2(17) of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management ('CACM Regulation'), only occurs if cross-zonal capacity is fully allocated and because of lack of cross-zonal capacity economic surplus is limited and prices on both sides of the bidding zone border are no longer equal. In case the aFRR MTU would be set to 15 minutes, the cross-border marginal price would reflect the maximum of all cross-border marginal prices in a load-frequency control area resulting from all optimisation cycles within the concerned 15 minutes. This would result in prices of cross-zonal capacities, which would not reflect market congestion in the sense that such prices would sometimes be non-zero even if cross-zonal capacity was almost never fully utilised. This would contradict the fundamental principle that the price difference between bidding zones should occur only in the presence of market congestion.
- (62) Therefore, the Agency considers that, given the available options and their compliance with other requirements listed in Article 30(1) of the EB Regulation, the Proposal fulfils the requirement of Article 30(1)(d) of the EB Regulation, with respect to the duration of the aFRR MTU.
- 6.2.6. Assessment of the requirement for balancing energy price to take into account the pricing method in the day-ahead and intraday timeframes
- (63) Pursuant to Article 30(1)(e) of the EB Regulation, the pricing methodology should take into account the pricing method in the day-ahead and intraday timeframes. Pursuant to Article 38(1) of the CACM Regulation, the day-ahead price coupling algorithm should (a) aim at maximising the economic surplus, (b) use the marginal pricing principle, (c) facilitate efficient price formation, (d) respect cross-zonal capacity and allocation constraints, and (e) be repeatable and scalable. The first four requirements refer to the pricing method and should be taken into account by the Proposal, while the last one is related to the day-ahead price coupling algorithm.
- (64) With respect to the requirement for the maximisation of the economic surplus, Articles 4 to 7 of the Proposal describe the calculation of the cross-border marginal price, which is the result of the optimisation taking place in each European platform through the activation optimisation function. The cross-border marginal price is the intersection between the supply and demand curves. In case of standard aFRR and DA mFRR balancing energy product bids, this concept is rather straightforward and, therefore, a precise definition of the cross-border marginal price as included in the Proposal is considered as an accurate definition. However, in case of standard RR and SA mFRR balancing energy product bids, the identification of supply and demand curves that lead to intersection is very complex because of additional complexities of

elastic demand and scheduled counter-activations. After consulting TSOs and regulatory authorities, the Agency was unable to find an accurate description of the calculation of cross-border marginal price since its definition highly depends on the exact implementation of the algorithm that will calculate these prices. For this purpose, the Agency replaced the proposed definition of cross-border marginal price in case of standard RR and SA mFRR balancing energy product bids with a more general definition, which allows the detailed definition to be determined and published once the algorithm for these two platforms are finalised and published. The Agency therefore amended Article 3 of the Proposal by requiring it to respect the general principle for the marginal price in each uncongested area and each MTU. This principle respects the maximisation of the economic surplus as defined in the CACM Regulation.

- (65) The Proposal respects the use of marginal pricing principle as concluded in section 6.2.2 above.
- (66) The Proposal facilitates efficient price formation, since it gives corrects price signals and incentives to market participants as described in section 6.2.5 above.
- (67) The Proposal respects the cross-zonal capacity as they are explicitly taken into account by the activation optimisation function when calculating the cross-border marginal price. Nevertheless, the proposal fails to mention allocation constraints. For this purpose, the Agency added a general reference in Article 2 of the pricing methodology that any reference to cross-zonal capacity shall include also the reference to allocation constraints. This does not mean that allocation constrains should always be used as inputs to the activation optimisation function, but rather that the activation optimisation function should be able to accommodate allocation constraints if TSOs define them as inputs.

#### 6.2.7. Assessment of the inclusion of technical price limits

- (68) Pursuant to Article 30(2) of the EB Regulation, in case TSOs identify that technical price limits are needed for an efficient functioning of the market, they may jointly develop, as part of the proposal pursuant to Article 30(1) of the EB Regulation, a proposal for harmonised maximum and minimum balancing energy prices, including bidding and clearing prices, to be applied in all scheduling areas. In such a case, Article 30(2) of the EB Regulation requires that the harmonised maximum and minimum balancing energy prices take into account the maximum and minimum clearing price for day-ahead and intraday timeframes pursuant to the CACM Regulation.
- (69) The Proposal does not include any technical price limits. However, during the Agency's consultation with TSOs and regulatory authorities, the TSOs clarified that they have identified the need for technical price limits for the operation of the algorithm and intend to apply them, but they refrain from defining them in the Proposal in order to have some flexibility to change them if they deem it necessary. The Agency considers that this is not in line with Article 30(2) of the EB Regulation since such limits can only be applied if they are defined in the methodology. The EB

Regulation, therefore, does not allow for flexibility on setting these limits, mainly because these limits need to be defined in a transparent process, be stable over time and ensure proper regulatory oversight. These requirements are addressed by defining these limits in the methodology.

- (70) Therefore, the Agency made a proposal to TSOs and regulatory authorities to set a technical price limit that should not affect the balancing energy market, i.e. equal to 99,999€/MWh and -99,999€/MWh for both positive and negative balancing energy. The Agency also consulted stakeholders on this issue. The majority of stakeholders were in favour of introducing technical price limits in the Proposal at the level proposed by the Agency. Some stakeholders asked for lower price limits or aligned with the ones defined for the day-ahead and intraday timeframes pursuant to the methodology of Article 41(1) of the CACM Regulation. Some stakeholders questioned the possibility of imposing technical price limits in the balancing timeframe, on the basis of Regulation (EU) 2019/943 of 5 June 2019 on the internal market for electricity ('Regulation (EU) 2019/943'). Article 10(1) of the Regulation (EU) 2019/943 specifies that there should be neither a maximum nor a minimum limit to the wholesale electricity price, for all timeframes, "*without prejudice to the technical price limits which may be applied in the balancing timeframe and in the day-ahead and intraday timeframes in accordance with paragraph 2*". These stakeholders understand that "*in accordance with paragraph 2*" refers to both "*balancing timeframe*" and "*day-ahead and intraday timeframe*". Paragraph 2 of Article 10 of Regulation (EU) 2019/943 describes the technical price limits applied by NEMOs in the day-ahead and intraday timeframes. Hence, it follows that the interpretation of the "*in accordance with paragraph 2*" in paragraph 1 of Article 10 of Regulation (EU) 2019/943 applies only in "*the day-ahead and intraday timeframes*" preceding it, and not "*in the balancing timeframe*". Therefore, the Agency understands that Regulation (EU) 2019/943 does not restrict the possibility, provided by the Article 30(2) of the EB Regulation, of introducing technical price limits in the balancing timeframe.
- (71) When proposing the value of these limits, the Agency took into account the maximum and minimum clearing price for day-ahead and intraday timeframes pursuant to Regulation (EU) 2015/1222, as required by Article 30(2) of the EB Regulation. To this end, the price limits in the balancing timeframe should not be lower than the limits imposed within the day-ahead and intraday timeframes and should not restrict price formation. While, in the day-ahead and intraday timeframe, these limits have been set at rather moderate levels in order to minimise the risks and costs associated with collaterals when trading in the day-ahead and intraday markets, the Agency understands that these limits will not affect collaterals in the balancing market, neither for BRPs, nor for BSPs. Therefore, in order to prevent restrictions on price formation and real-time value of energy, the Agency considers that the higher price limits are justified.
- (72) Therefore, the Agency amended the Proposal, in order to introduce maximum and minimum balancing energy prices, including bidding and clearing prices to the level of 99,999€/MWh and -99,999€/MWh.

6.2.8. Assessment of the requirements for pricing cross-zonal capacity

*6.2.8.1. Requirement to be consistent with the requirements established under Regulation (EU) 2015/1222*

(73) Pursuant to Article 30(3) of the EB Regulation, the methodology for pricing of cross-zonal capacity used for exchange of balancing energy or for operating the imbalance netting process should be consistent with the requirements established under the CACM Regulation. Pursuant to Article 42 of the CACM Regulation, the day-ahead cross-zonal capacity charge should reflect market congestion and shall amount to the difference between the corresponding day-ahead clearing prices of the relevant bidding zones; moreover, no charges, such as imbalance fees or additional fees, should be applied to the day-ahead cross-zonal capacity. Pursuant to Article 55 of the CACM Regulation, the single methodology for pricing intraday cross-zonal capacity should reflect market congestion and shall be based on actual orders. Based on the assessment of these requirements in sections 6.2.8.2 and 6.2.8.4 below, the Proposal fulfils the requirement of Article 30(3) of the EB Regulation.

*6.2.8.2. Requirement to reflect market congestion*

(74) Pursuant to Article 30(3)(a) of the EB Regulation, the methodology for pricing of cross-zonal capacity used for exchange of balancing energy or for operating the imbalance netting process should reflect market congestion.

(75) Article 9 of the Proposal sets the cross-zonal capacity price, for the balancing energy exchange resulting from the activation of balancing energy bids, equal to the difference between the cross-border marginal prices of the respective uncongested areas, and to 0 €/MWh within an uncongested area. The same principle also applies for the cross-zonal capacity price for the balancing energy exchange resulting from, either the imbalance netting process performed implicitly by the activation optimisation function of the aFRR-Platform, or the netting of demands in the RR-Platform and mFRR-Platform; the cross-zonal capacity price for the balancing energy exchange resulting from the imbalance netting process performed explicitly by the European Platform for the imbalance netting process, pursuant to Article 22 of the EB Regulation, is set equal to 0 €/MWh.

(76) Since the calculation of the cross-zonal capacity price is directly linked to the balancing energy price, the only way for it to reflect market congestion, is if it is ensured that the balancing energy price also reflects market congestion. The difference in the cross-border marginal prices among the uncongested areas, which is used for the calculation of the cross-zonal capacity price, results from the limited available cross-zonal capacity that, according to the Proposal, is taken into account during the calculation of the cross-border marginal price, as explained in section 6.2.3 above, and in this aspect, the cross-zonal capacity price reflects market congestion.

(77) Therefore, the Proposal fulfils the requirement of Article 30(3)(a) of the EB Regulation.

*6.2.8.3. Requirement to be based on the balancing energy prices*

- (78) Pursuant to Article 30(3)(b) of the EB Regulation, the methodology for pricing of cross-zonal capacity used for exchange of balancing energy or for operating the imbalance netting process should be based on the prices for balancing energy from activated balancing energy bids, determined in accordance, either with the pricing method pursuant to Article 30(1)(a) of the EB Regulation, or if applicable, the pricing method pursuant to Article 30(5) of the EB Regulation.
- (79) Articles 9(2) and 9(4) of the Proposal determine the cross-zonal capacity price for the exchange of balancing energy or for operating the imbalance netting process, as the difference between the cross-border marginal prices between two uncongested areas. The cross-border marginal price is the price of the activated balancing energy pursuant to the current pricing methodology. Therefore, the cross-zonal capacity price is directly based on the price of the activated balancing energy and the Proposal, therefore, fulfils the requirement of Article 30(3)(b) of the EB Regulation.

*6.2.8.4. Requirement to not apply any additional charges*

- (80) Pursuant to Article 30(3)(c) of the EB Regulation, the methodology for pricing of cross-zonal capacity used for exchange of balancing energy or for operating the imbalance netting process should not apply any additional charges for the exchange of balancing energy or for operating the imbalance netting process, except a charge to compensate losses if this charge is also taken into account in other timeframes.
- (81) As described in paragraph (75) above, Article 9 of the Proposal sets the cross-zonal capacity price, either to the difference between the cross-border marginal prices of the respective uncongested areas, or to 0 €/MWh, without specifying any additional charges. Whether the calculation of the cross-border marginal prices takes into account the losses depends on the methodology for defining algorithms for the activation optimisation function of each platform, which is outside the scope of this methodology. Therefore, the Proposal fulfils the requirement of Article 30(3)(c) of the EB Regulation.

6.2.9. Assessment of the requirement for the balancing energy pricing methodology to also apply to specific products

- (82) Pursuant to Article 30(4) of the EB Regulation, the pricing methodology should apply to balancing energy from all standard and specific products pursuant to Article 26(3)(a) of the EB Regulation, and for specific products pursuant to Article 26(3)(b) of the EB Regulation. The concerned TSO may propose a different pricing method in the proposal for specific products pursuant to Article 26 of the EB Regulation.
- (83) Article 1 of the Proposal defines the scope of the pricing methodology in line with Article 30(1) of the EB Regulation, without restriction to activations from standard or specific balancing energy products. Additionally, the Proposal makes reference both to standard and specific balancing energy products. However, there are two different categories of specific balancing energy products, namely (a) the ones pursuant to

Article 26(3)(a) of the EB Regulation that are converted into standard balancing energy products, and (b) the ones pursuant to Article 26(3)(b) of the EB Regulation that remain available only for local activation. Pursuant to Article 30(4) of the EB Regulation, the TSOs may develop a proposal for the pricing of balancing energy as a result of the activation of the specific product bids under Article 26(3)(b) of the EB Regulation, but if they do not, the pricing methodology, pursuant to Article 30(1) of the EB Regulation, should be applicable. The Agency deems it necessary to clarify, in the scope of the Proposal, that, unless a different methodology is developed by the concerned TSOs, this pricing methodology is valid for standard and specific balancing energy products. Therefore, the Agency amended Article 1 of the Proposal accordingly.

6.2.10. Amendments necessary to ensure legal clarity and consistency with existing legal provisions

6.2.10.1. *Alignment with the MTU*

- (84) In their non-paper (see paragraph (8) above), all regulatory authorities agreed that the timing of the balancing energy pricing period ('BEPP') in Articles 4, 5, 6, and 7 of the Proposal should be clarified to be consistent with the MTU as defined in Article 2(19) of Regulation 543/2013, i.e. the MTU is: *"the period for which the market price is established or the shortest possible common time period for the two bidding zones, if their market time units are different."*
- (85) The BEPP definition proposed by the TSOs is consistent with the MTU definition provided in Regulation (EU) 543/2013, hence the Agency proposed to replace the term BEPP with MTU for each specific platform and consulted stakeholders on these proposals. As mentioned in paragraph (20)(a) above, the majority of stakeholders was in favour of the replacement of the term BEPP with the term MTU. Some stakeholders conditioned the definition of the term to the duration of the MTU, suggesting that the replacement can only be possible if the duration of the MTU is 15 minutes since, according to them, a shorter MTU would make more difficult the compliance with the publication requirements set by Regulation 543/2013, where the reporting unit is linked to the MTU.
- (86) The Agency considers that whether a time period is named MTU is not related to its duration, but rather to whether it fulfils the definition of the MTU, as provided in the Regulation (EU) 543/2013. Additionally, the Agency acknowledges that a MTU shorter than the ISP increases the publication requirements set by the Regulation (EU) 543/2013 for the TSOs since, indeed, the MTU is the reporting unit according to the Regulation (EU) 543/2013 and the EB Regulation, in particular Article 12 of the EB Regulation. Furthermore, the Agency understands that the MTU should not be defined for the whole balancing timeframe, but separately for each platform, as each of them is a market for different balancing process.
- (87) Article 31(4) of the EB Regulation requires that the balancing energy bids submitted to the common merit order lists are expressed in euros and make reference to the MTU. This requirement aims to provide a link between the submitted balancing energy bids

and the market time unit for which the price is established (i.e. the cross-border marginal price). The Agency understands that this requirement is equally respected in case of a MTU shorter than the ISP since, in this case, the bids submitted will need to make reference to all MTUs for which the bids are submitted. Alternatively, the bids could make reference to the validity period if a clear link between the validity period and the corresponding MTUs within the validity period is established.

- (88) Article 53(1) of the EB Regulation requires that all TSOs apply the ISP of 15 minutes in all scheduling areas, while ensuring that all boundaries of the MTU coincide with the boundaries of the ISP, by three years after the entry into force of the EB Regulation. The Agency understands that this requirement should be respected when the ISP is defined and does not restrict in any way the definition of the MTU in any timeframe. Since the duration of the ISP is defined by the abovementioned provision and is set to 15 minutes, the only other element that needs to be defined is the start time of the first ISP of each day. The start time of all MTUs, i.e. RR, mFRR and aFRR, for each day is at 00:00 market time, which coincides with the start time of the MTUs for day-ahead and intraday markets; hence when applying the ISP, all TSOs should make sure that the start time of the first ISP of each day is at 00:00 market time.
- (89) Therefore, the Agency considers that an MTU shorter than the ISP is in line with the requirements of Articles 31(4) and 53(1) of the EB Regulation, and the duration of the MTU should not prevent the alignment of the two terms.
- (90) The fact that the BEPP's definition is the same as the MTU one requires the replacement of BEPP in order to avoid ambiguity and confusion among market participants. Therefore, the Agency amended the Proposal by replacing the term BEPP with the term MTU, defining it for each process (e.g. aFRR MTU, mFRR MTU, RR MTU).

#### 6.2.11. Assessment of the requirements for consultation, transparency and stakeholder involvement

##### 6.2.11.1. *Consultation and involvement of stakeholders*

- (91) When drafting the Proposal, all TSOs aimed at addressing the requirements from Article 10 of the EB Regulation regarding the involvement of stakeholders.
- (92) As indicated in paragraph (5) above, all TSOs fulfilled the requirements of Article 10 of the EB Regulation, since stakeholders were consulted on the draft Proposal pursuant to Article 10(1) of the EB Regulation. This involvement took place during a public consultation, which was performed from 12 September 2018 until 13 November 2018. In addition, all regulatory authorities were regularly informed and consulted pursuant to Article 10(1) of the EB Regulation. The justifications regarding the consideration given to the views expressed by stakeholders during the public consultation in the drafting of the Proposal were provided in a separate document dated 18 December 2018 and submitted to all regulatory authorities.

*6.2.11.2. Reporting and monitoring*

(93) Article 3(8) of the Proposal introduces monitoring and reporting requirements for the TSOs on an annual basis. The Agency further specified these reporting and monitoring obligations, by amending the respective Article of the Proposal and linked them with the European report pursuant to Article 59(1) of the EB Regulation.

**7. CONCLUSION**

(94) For all the above reasons, the Agency considers the Proposal in line with the requirements of the EB Regulation, provided that the amendments described in this Decision are integrated in the Proposal, as presented in Annex I.

(95) Therefore, the Agency approves the Proposal subject to the necessary amendments and to the necessary editorial amendments. To provide clarity, Annex I to this Decision sets out the Proposal as amended and approved by the Agency,

HAS ADOPTED THIS DECISION:

*Article 1*

The methodology to determine prices for the balancing energy that results from the activation of balancing energy bids in accordance with Article 30 of Regulation (EU) 2017/2195 is adopted as set out in Annex I to this Decision.

*Article 2*

This Decision is addressed to all TSOs:

50Hertz Transmission GmbH,  
Amprion GmbH,  
AS Augstsprieguma tīkls,  
Austrian Power Grid AG,  
BritNed Development Limited (NL),  
BritNed Development Limited (UK),  
C.N.T.E.E. Tranelectrica S.A.,  
ČEPS a.s.,  
Creos Luxembourg S.A.,  
EirGrid Interconnector DAC,  
EirGrid plc,  
Elektroenergien Systemen Operator EAD,  
Elering AS,  
ELES, d.o.o.,  
Elia System Operator SA,  
Elia System Operator NV/SA,  
Energinet Electricity System Operator,

Fingrid Oyj,  
HOPS d.o.o.,  
Hrvatski operator prijenosnog sustava,  
Independent Power Transmission Operator S.A.,  
Kraftnät Åland Ab,  
Litgrid AB,  
MAVIR ZRt,  
Moyle Interconnector Limited,  
National Grid Electricity Interconnector Limited,  
National Grid Electricity System Operator,  
Nemo Link Limited,  
Polskie Sieci Elektroenergetyczne,  
Red Eléctrica de España S.A.,  
Rede Eléctrica Nacional, S.A.,  
Réseau de Transport d'Electricité,  
Slovenská elektrizačná prenosová sústava, a.s.,  
Svenska kraftnät,  
System Operator for Northern Ireland Ltd,  
TenneT TSO B.V.,  
TenneT TSO GmbH,  
Terna Rete Elettrica Nazionale S.p.A.,  
TransnetBW GmbH and  
VÜEN-Vorarlberger Übertragungsnetz GmbH.

Done at Ljubljana, on 24 January 2020.

**- SIGNED -**

*For the Agency  
The Director*

C. Zinglensen

Annexes:

Annex I – Methodology for pricing balancing energy and cross-zonal capacity used for the exchange of balancing energy or operating the imbalance netting process in accordance with Article 30(1) of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

Annex Ia (for information only) – Methodology for pricing balancing energy and cross-zonal capacity used for the exchange of balancing energy or operating the imbalance netting process in accordance with Article 30(1) of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing – with track changes

Annex II (for information only) – Evaluation of responses to the public consultation on the methodology to determine prices for the balancing energy that results from the activation of balancing energy bids

*In accordance with Article 28 of Regulation (EU) 2019/942, the addressees may appeal against this Decision by filing an appeal, together with the statement of grounds, in writing at the Board of Appeal of the Agency within two months of the day of notification of this Decision.*