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COMMISSION REGULATION (EU) .../...

of **XXX**

establishing a guideline on electricity balancing

(Text with EEA relevance)

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(Issued to Member States)

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of XXX

establishing a guideline on electricity balancing

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003¹ and in particular Article 18(3)(b), Article 18(3)(d) and Article 18(5), thereof,

Whereas:

- (1) A fully functioning and interconnected internal energy market is crucial for maintaining security of energy supply, increasing competitiveness and ensuring that all consumers can purchase energy at affordable prices.
- (2) A well-functioning internal market in electricity should provide producers with appropriate incentives for investing in new power generation, including in electricity from renewable energy sources, paying special attention to the most isolated Member States and regions in the Union's energy market. A well-functioning market should also provide consumers with adequate measures to promote more efficient use of energy, which presupposes a secure supply of energy.
- (3) Regulation (EC) No 714/2009 sets out non-discriminatory rules on conditions for access to the network for cross-border exchanges in electricity and, in particular, rules on capacity allocation for interconnections and transmission systems affecting cross-border electricity flows. In order to move towards a genuinely integrated electricity market and to ensure operational security, efficient balancing rules should be developed to incentivise market participants to contribute to solving the system scarcities for which they are responsible. In particular, it would be necessary to develop rules for trading related to the technical and operational provision of system balancing including system-related power reserve rules.
- (4) Commission Regulation (EU) 2017/000 [SO] sets out harmonised rules on system operation for transmission system operators ('TSOs'), regional security coordinators, distribution system operators ('DSOs') and significant grid users. It identifies different critical system states (normal state, alert state, emergency state, blackout state and restoration state). It also includes requirements and principles to ensure the conditions for maintaining operational security throughout the Union and promote the coordination of requirements and principles for Union-wide load-frequency-control and reserves.

¹ OJ L 211, 14.08.2009, p. 15.

- (5) This Regulation pursues the objective of ensuring the optimal management and coordinated operation of the European electricity transmission system, while supporting the achievement of the Union's targets for penetration of renewable generation, as well as providing benefits for customers with the participation of demand response. TSOs, working with DSOs where relevant, should be responsible for organising European balancing markets and should strive for their integration, keeping the system in balance in the most efficient manner. To do so, they should work in close cooperation and coordinate their activities as much as possible.
- (6) In fulfilling the requirements of this Regulation, TSOs and regulatory authorities should exploit synergies and draw on experience gained through existing balancing cooperation projects that have commenced, have been concluded or are on-going at the date of the entry into force of this Regulation.
- (7) The integration of balancing energy markets should be facilitated with the establishment of common European platforms for operating the imbalance netting process and enabling the exchange of balancing energy from frequency restoration reserves and replacement reserves. Cooperation between TSOs should be strictly limited to what is necessary for the efficient and secure design, implementation and operation of those European platforms.
- (8) The integration of balancing energy markets should facilitate the efficient functioning of the intraday market in order to provide the possibility for market participants to balance themselves as close as possible to real time. Only the imbalances remaining after the end of intraday market should be balanced by TSOs with the balancing market.
- (9) The pricing method for each standard product for balancing energy should strive for an economically efficient use of demand response and other balancing resources subject to operational security limits. The pricing method used in the procurement of balancing capacity should strive for an economically efficient use of demand response and other balancing resources subject to operational security limits.
- (10) Each balancing service provider intending to provide balancing capacity or balancing energy should successfully pass a prequalification process defined by the TSOs in close cooperation with DSOs where necessary.
- (11) While a fully integrated European electricity balancing market requires TSOs to share and exchange all balancing services with other TSOs, TSOs may withhold some balancing services from sharing and exchanging with other TSOs in order to ensure the fulfilment of reserve capacity requirements during a transition period. After full integration is achieved, the efficient market signals and reciprocity among TSOs should ensure sufficient reserve capacity requirements to balance the electricity system and minimise the withholding of balancing services from sharing and exchanging with other TSOs.
- (12) In accordance with Article 8 of Regulation (EC) No 713/2009 of the European Parliament and of the Council², the Agency for the Cooperation of Energy Regulators ('the Agency') should take a decision if the competent regulatory authorities are not able to reach an agreement on common terms and conditions or methodologies.

² Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators (OJ L 211, 14.8.2009, p. 1).

- (13) This Regulation has been developed in close cooperation with the Agency, the ENTSO for Electricity ('ENTSO-E') and stakeholders, in order to adopt effective, balanced and proportionate rules in a transparent and participative manner. In accordance with Article 18(3) of Regulation (EC) 714/2009, the Commission will consult the Agency, ENTSO-E and other relevant stakeholders before proposing any amendment to this regulation.
- (14) The measures provided for in this Regulation are in accordance with the opinion of the Committee referred to in Article 23(1) of Regulation (EC) No 714/2009.

HAS ADOPTED THIS REGULATION:

TITLE I GENERAL PROVISIONS

Article 1

Subject matter and scope

1. This Regulation lays down detailed guidelines on electricity balancing including the establishment of common principles for the procurement and the settlement of frequency containment reserves, frequency restoration reserves and replacement reserves and a common methodology for the activation of frequency restoration reserves and replacement reserves.
2. The requirements set forth by this Regulation shall apply to TSOs, DSOs including closed distribution systems, regulatory authorities, the Agency, ENTSO-E, third parties to whom responsibilities have been delegated or assigned, where applicable, and market participants.
3. This Regulation shall apply to all transmission systems and interconnections in the Union except the transmission systems on islands that are not connected with other transmission systems via interconnections.
4. In a Member State where more than one TSO exists, this Regulation shall apply to all TSOs within that Member State. Where a TSO does not have a function relevant to one or more obligations under this Regulation, Member States may provide that the responsibility to comply with those obligations is assigned to one or more specific TSOs.
5. The exchange of balancing services may be opened to TSOs operating in Switzerland on the condition that its national law implements the main provisions of Union electricity market legislation and that there is an intergovernmental agreement on electricity cooperation between the Union and Switzerland, except if the exchange of balancing services with Switzerland are necessary for the safe secure network operation of the Union electricity market.
6. Subject to the conditions of paragraph 5, the participation of Switzerland in the exchange of balancing services shall be decided by the Commission based on an opinion given by the Agency. The rights and responsibilities of Swiss TSOs shall be consistent with the rights and responsibilities of TSOs operating in the Union, allowing for a smooth functioning of balancing market at Union level and a level-playing field for all stakeholders.
7. This Regulation shall apply to all system states, as defined in Article 18 of Commission Regulation (EU) 2017/000 [SO]. This Regulation shall also apply when

market activities are suspended to the extent that it does not contradict the rules on market suspension pursuant to Commission Regulation (EU) 2017/000 [NC ER].

Article 2 *Definitions*

For the purposes of this Regulation, the definitions in Article 2 of Regulation (EC) No 714/2009, Article 2 of Commission Regulation (EU) 2015/1222³, Article 2 of Commission Regulation (EU) 2016/631⁴, Article 2 of Commission Regulation (EU) 2016/1388⁵, Article 2 of Commission Regulation (EU) 2016/1447⁶, Article 2 of Commission Regulation (EU) 2016/1719⁷, Article 2 of Commission Regulation (EU) 2017/000 [SO], Article 2 of Commission Regulation (EU) 2017/000 [ER], Article 2 of Commission Regulation (EU) No 543/2013⁸ and Article 2 of Directive 2009/72/EC shall apply.

In addition, the following definitions shall apply:

- (1) 'balancing' means all actions and processes, on all timelines, through which TSOs ensure, in a continuous way, the maintenance of system frequency within a predefined stability range as set forth in Article 127 of Commission Regulation (EU) 2017/000 [SO], and compliance with the amount of reserves needed with respect to the required quality, as set forth in Part IV Title V, Title VI and Title VII of Commission Regulation (EU) 2017/000 [SO];
- (2) 'balancing market' means the entirety of institutional, commercial and operational arrangements that establish market-based management of balancing;
- (3) 'balancing services' means either or both balancing energy and balancing capacity;
- (4) 'balancing energy' means energy used by TSOs to perform balancing and provided by a balancing service provider;
- (5) 'balancing capacity' means a volume of reserve capacity that a balancing service provider has agreed to hold and in respect to which the balancing service provider has agreed to submit bids for a corresponding volume of balancing energy to the TSO for the duration of the contract;
- (6) 'balancing service provider' means a market participant with reserve-providing units or reserve-providing groups able to provide balancing services to TSOs;
- (7) 'balance responsible party' means a market-related entity or its chosen representative responsible for its imbalances;

³ Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (OJ L 197, 25.7.2015, p. 24).

⁴ Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators (OJ L 112, 27.4.2016, p. 1).

⁵ Commission Regulation (EU) 2016/1388 of 17 August 2016 establishing a network code on demand connection (OJ L 223, 18.8.2016, p. 10).

⁶ Commission Regulation (EU) 2016/1447 of 26 August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules (OJ L 241, 8.9.2016, p. 1).

⁷ Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (OJ L 259, 27.9.2016, p. 42).

⁸ Commission Regulation (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council (OJ L 163, 15.6.2013, p. 1).

- (8) 'imbalance' means an energy volume calculated for a balance responsible party and representing the difference between the allocated volume attributed to that balance responsible party and the final position of that balance responsible party, including any imbalance adjustment applied to that balance responsible party, within a given imbalance settlement period;
- (9) 'imbalance settlement' means a financial settlement mechanism for charging or paying balance responsible parties for their imbalances;
- (10) 'imbalance settlement period' means the time unit for which balance responsible parties' imbalance is calculated;
- (11) 'imbalance area' means the area in which an imbalance is calculated;
- (12) 'imbalance price' means the price, be it positive, zero or negative, in each imbalance settlement period for an imbalance in each direction;
- (13) 'imbalance price area' means the area for the calculation of an imbalance price;
- (14) 'imbalance adjustment' means an energy volume representing the balancing energy from a balancing service provider and applied by the connecting TSO for an imbalance settlement period to the concerned balance responsible parties, used for the calculation of the imbalance of these balance responsible parties;
- (15) 'allocated volume' means an energy volume physically injected or withdrawn from the system and attributed to a balance responsible party, for the calculation of the imbalance of that balance responsible party;
- (16) 'position' means the declared energy volume of a balance responsible party used for the calculation of its imbalance;
- (17) 'self-dispatching model' means a scheduling and dispatching model where the generation schedules and consumption schedules as well as dispatching of power generating facilities and demand facilities are determined by the owners of those facilities;
- (18) 'central dispatching model' means a scheduling and dispatching model where the generation schedules and consumption schedules as well as dispatching of power generating facilities and demand facilities, in reference to dispatchable facilities, are determined by a TSO within the integrated scheduling process;
- (19) 'integrated scheduling process' means an iterative process that uses at least integrated scheduling process bids that contain commercial data, complex technical data of individual power generating facilities or demand facilities and explicitly includes the start-up characteristics, the latest control area adequacy analysis and the operational security limits as an input to the process;
- (20) 'integrated scheduling process gate closure time' means the point in time when the submission or the update of integrated scheduling process bids is no longer permitted for the given iterations of the integrated scheduling process;
- (21) 'TSO-TSO model' means a model for the exchange of balancing services where the balancing service provider provides balancing services to its connecting TSO, which then provides these balancing services to the requesting TSO;
- (22) 'connecting TSO' means the TSO that operates the control area in which balancing service providers and balance responsible parties shall be compliant with the terms and conditions related to balancing;

- (23) 'exchange of balancing services' means either or both exchange of balancing energy and exchange of balancing capacity;
- (24) 'exchange of balancing energy' means the activation of balancing energy bids for the delivery of balancing energy to a TSO in a different control area or scheduling area than the one in which the activated balancing service provider is connected;
- (25) 'exchange of balancing capacity' means the provision of balancing capacity to a TSO in a different control area or scheduling area than the one in which the procured balancing service provider is connected;
- (26) 'transfer of balancing capacity' means a transfer of balancing capacity from the initially contracted balancing service provider to another balancing service provider;
- (27) 'balancing energy gate closure time' means the point in time when submission or update of a balancing energy bid for a standard product on a common merit order list is no longer permitted;
- (28) 'standard product' means a harmonised balancing product defined by all TSOs for the exchange of balancing services;
- (29) 'preparation period' means the time duration between the request by the TSO and the start of the energy delivery;
- (30) 'full activation time' means the time period between the activation request by the TSO and the corresponding full activation of the concerned product;
- (31) 'deactivation period' means the time period for ramping from full delivery to a set point, or from full withdrawal back to a set point;
- (32) 'delivery period' means the time period of delivery during which the balancing service provider delivers the full requested change of power in-feed to, or the full requested change of withdrawals from the system;
- (33) 'validity period' means the time period when the balancing energy bid offered by the balancing service provider can be activated, where all the characteristics of the product are respected. The validity period is defined by a start time and an end time;
- (34) 'mode of activation' means the mode of activation of balancing energy bids, manual or automatic, depending on whether balancing energy is triggered manually by an operator or automatically in a closed-loop manner;
- (35) 'divisibility' means the possibility for a TSO to use only part of the balancing energy bids or balancing capacity bids offered by the balancing service provider, either in terms of power activation or time duration;
- (36) 'specific product' means a product different from a standard product;
- (37) 'common merit order list' means a list of balancing energy bids sorted in order of their bid prices, used for the activation of those bids;
- (38) 'TSO energy bid submission gate closure time' means the latest point in time when a connecting TSO can forward the balancing energy bids received from a balancing service provider to the activation optimisation function;
- (39) 'activation optimisation function' means the function of operating the algorithm applied to optimise the activation of balancing energy bids;
- (40) 'imbalance netting process function' means the role to operate the algorithm applied for operating the imbalance netting process;

- (41) 'TSO-TSO settlement function' means the function of performing the settlement of cooperation processes between the TSOs;
- (42) 'capacity procurement optimisation function' means the function of operating the algorithm applied for the optimisation of the procurement of balancing capacity for TSOs exchanging balancing capacity.
- (43) 'transfer of balancing capacity function' means the function of operating the algorithm applied for the optimisation of the transfer of balancing capacity;
- (44) 'TSO-BSP model' means a model for the exchange of balancing services where the balancing service provider provides balancing services directly to the contracting TSO, which then provides these balancing services to the requesting TSO;
- (45) 'contracting TSO' means the TSO that has contractual arrangements for balancing services with a balancing service provider in another control area;
- (46) 'requesting TSO' means the TSO that requests the delivery of balancing energy;

Article 3

Objectives and regulatory aspects

1. This Regulation aims at:
 - (a) fostering effective competition, non-discrimination and transparency in balancing markets;
 - (b) enhancing efficiency of balancing as well as efficiency of European and national balancing markets;
 - (c) integrating balancing markets and promoting the possibilities for exchanges of balancing services while contributing to operational security;
 - (d) contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union while facilitating the efficient and consistent functioning of day-ahead, intraday and balancing markets;
 - (e) ensuring that the procurement of balancing services is fair, objective, transparent and market-based, avoids undue barriers to entry for new entrants, fosters the liquidity of balancing markets while preventing undue distortions within the internal market in electricity;
 - (f) facilitating the participation of demand response including aggregation facilities and energy storage while ensuring they compete with other balancing services at a level playing field and, where necessary, act independently when serving a single demand facility;
 - (g) facilitating the participation of renewable energy sources and support the achievement of the European Union target for the penetration of renewable generation.
2. When applying this Regulation, Member States, competent authorities, and system operators shall:
 - (a) apply the principles of proportionality and non-discrimination;
 - (b) ensure transparency;
 - (c) apply the principle of optimisation between the highest overall efficiency and lowest total costs for all parties involved;

- (d) ensure TSOs make use of market-based mechanisms, as far as possible, to ensure network security and stability;
- (e) respect the responsibility assigned to the relevant TSO in order to ensure system security, including as required by national legislation;
- (f) consult with relevant DSOs and take account of potential impacts on their system;
- (g) take into consideration agreed European standards and technical specifications.

Article 4

Terms and conditions or methodologies of TSOs

1. TSOs shall develop the terms and conditions or methodologies required by this Regulation and submit them for approval to the competent regulatory authorities within the respective deadlines set out in this Regulation.
2. Where a proposal for terms and conditions or methodologies pursuant to this Regulation needs to be developed and agreed by more than one TSO, the participating TSOs shall closely cooperate. TSOs, with the assistance of ENTSO-E, shall regularly inform the regulatory authorities and the Agency about the progress of developing these terms and conditions or methodologies.
3. Where no consensus is reached among TSOs deciding on proposals for terms and conditions or methodologies in accordance with Article 5(2), they shall decide by qualified majority. A qualified majority for proposals in accordance with Article 5(2) shall require a majority of:
 - (a) TSOs representing at least 55% of the Member States; and
 - (b) TSOs representing Member States comprising at least 65% of the population of the Union.

A blocking minority for decisions in accordance with Article 5(2) must include TSOs representing at least four Member States, failing of which the qualified majority shall be deemed attained.

4. Where the regions concerned are composed of more than five Member States and no consensus is reached among TSOs deciding on proposals for terms and conditions or methodologies in accordance with Article 5(3), they shall decide by qualified majority. A qualified majority for proposals in accordance with Article 5(3) shall require a majority of:
 - (a) TSOs representing at least 72% of the Member States concerned; and
 - (b) TSOs representing Member States comprising at least 65% of the population of the concerned area.

A blocking minority for decisions in accordance with Article 5(3) must include at least a minimum number of TSOs representing more than 35% of the population of the participating Member States, plus TSOs representing at least one additional Member State concerned, failing of which the qualified majority shall be deemed attained.

5. TSOs deciding on proposals for terms and conditions or methodologies in accordance with Article 5(3) in relation to regions composed of five Member States or less shall decide based on consensus.

6. For TSO decisions under paragraphs 3 and 4, one vote shall be attributed per Member State. If there is more than one TSO in the territory of a Member State, the Member State shall allocate the voting powers among the TSOs.
7. Where TSOs fail to submit a proposal for terms and conditions or methodologies to the competent regulatory authorities within the deadlines defined in this Regulation, they shall provide the competent regulatory authorities and the Agency with the relevant drafts of the terms and conditions or methodologies and explain why an agreement has not been reached. The Agency shall inform the Commission and shall, in cooperation with the competent regulatory authorities, at the Commission's request, investigate the reasons for the failure and inform the Commission thereof. The Commission shall take the appropriate steps to make possible the adoption of the required terms and conditions or methodologies within four months from the receipt of the Agency's information.

Article 5

Approval of terms and conditions or methodologies of TSOs

1. Each regulatory authority shall approve the terms and conditions or methodologies developed by TSOs under paragraphs 2, 3 and 4.
2. The proposals for the following terms and conditions or methodologies shall be subject to approval by all regulatory authorities:
 - (a) the frameworks for the establishment of the European platforms pursuant to Article 20(1), Article 21(1), Article 22(1) and Article 23(1);
 - (b) the modifications of the frameworks for the establishment of the European platforms pursuant to Article 21(5) and Article 22(5);
 - (c) the standard products for balancing energy and capacity pursuant to Article 25(2);
 - (d) the classification methodology for the activation purposes of balancing energy bids pursuant to Article 29(4);
 - (e) the methodology for the probabilistic calculation of cross-zonal capacity pursuant to Article 33(6);
 - (f) the specific cross-zonal capacity calculation and pricing methodologies pursuant to Article 37(1) and Article 38(1);
 - (g) the methodology for a co-optimised allocation process of cross-zonal capacity pursuant to Article 41(1);
 - (h) the methodology for triggering shortage pricing pursuant to Article 45(3);
 - (i) the pricing method for balancing energy pursuant to Article 47(1);
 - (j) the TSO-TSO settlement rules for the intended exchange of energy pursuant to Article 52(1);
 - (k) the TSO-TSO settlement rules for the unintended exchange of energy pursuant to Article 53(2);
 - (l) the harmonisation of the main features of imbalance settlement pursuant to Article 54(2);
 - (m) the principles for balancing algorithms pursuant to Article 60(1), Article 60(2) and Article 60(4).

3. The proposals for the following terms and conditions or methodologies shall be subject to approval by all regulatory authorities of the concerned region:
 - (a) the establishment of common and harmonised rules and process for the exchange and procurement of balancing capacity pursuant to Article 33(1);
 - (b) the application of a TSO-BSP model pursuant to Article 35;
 - (c) the harmonisation of the methodology for the allocation of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves pursuant to Article 39(2);
 - (d) the methodology for a market-based allocation process of cross-zonal capacity pursuant to Article 42(1);
 - (e) the methodology for allocation and the list of each individual allocation of cross-zonal capacity based on an economic efficiency analysis pursuant to Article 43(1) and Article 43(4);
 - (f) the TSO-TSO settlement rules for the intended exchange of energy pursuant to Article 52(3);
 - (g) the TSO-TSO settlement rules for the intended exchange of energy pursuant to Article 52(4);
 - (h) the TSO-TSO settlement rules for the unintended exchange of energy pursuant to Article 53(1);
 - (i) the exemption in respect of the harmonisation of the imbalance settlement periods pursuant to Article 55(2);
 - (j) the principles for balancing algorithms pursuant to Article 60(3).
4. The proposals for the following terms and conditions or methodologies shall be subject to approval by each regulatory authority of each concerned Member State on a case-by-case basis:
 - (a) the exemption to publish information on offered prices of balancing energy or balancing capacity bids due to market power concerns pursuant to Article 13(3);
 - (b) the exemption to apply a central-dispatching model for determining generation schedules and consumption schedules pursuant to Article 15(2);
 - (c) the methodology for allocating costs resulting from actions taken by DSOs, pursuant to Article 16(3);
 - (d) the terms and conditions related to balancing pursuant to Article 19;
 - (e) the definition and the use of specific products pursuant to Article 26(1);
 - (f) the methodology for application of unshared bids pursuant to Article 30(4);
 - (g) the derogations in respect to one or more provisions of this Regulation pursuant to Article 64(1);
 - (h) the costs relating to the obligations imposed on system operators or assigned third entities in accordance with this Regulation.
5. The proposal for terms and conditions or methodologies shall include a proposed timescale for their implementation and a description of their expected impact on the objectives of this Regulation. The implementation timescale shall not be longer than twelve months after the approval by the competent regulatory authorities, except

where all competent regulatory authorities agree to extend the implementation timescale or where different timescales are stipulated in this Regulation. Proposals on terms and conditions or methodologies subject to the approval by several or all regulatory authorities shall be submitted to the Agency at the same time that they are submitted to regulatory authorities. Upon request by the competent regulatory authorities, the Agency shall issue an opinion within three months on the proposals for terms and conditions or methodologies.

6. Where the approval of the terms and conditions or methodologies requires a decision by more than one regulatory authority, the competent regulatory authorities shall consult and closely cooperate and coordinate with each other in order to reach an agreement. Where the Agency issues an opinion, the competent regulatory authorities shall take that opinion into account. Regulatory authorities shall take decisions concerning the submitted terms and conditions or methodologies in accordance with paragraphs 2 and 3, within six months following the receipt of the terms and conditions or methodologies by the regulatory authority or, where applicable, by the last regulatory authority concerned.
7. Where the regulatory authorities have not been able to reach agreement within the period referred to in paragraph 6, or upon their joint request, the Agency shall adopt a decision concerning the submitted proposals for terms and conditions or methodologies within six months, in accordance with Article 8(1) of Regulation (EC) No 713/2009.
8. Any party can complain against a relevant system operator or TSO in relation to that relevant system operator's or TSO's obligations or decisions under this Regulation and may refer the complaint to the regulatory authority which, acting as dispute settlement authority, shall issue a decision within two months after receipt of the complaint. That period may be extended by a further two months where additional information is sought by the regulatory authority. That extended period may be further extended with the agreement of the complainant. The regulatory authority's decision shall be binding unless and until overruled on appeal.

Article 6

Amendments to terms and conditions or methodologies of TSOs

1. Where one or several regulatory authorities require an amendment in order to approve the terms and conditions or methodologies submitted in accordance with Article 5(2), Article 5(3) and Article 5(4), the relevant TSOs shall submit a proposal for amended terms and conditions or methodologies for approval within two months following the requirement from the regulatory authorities. The competent regulatory authorities shall decide on the amended terms and conditions or methodologies within two months following their submission.
2. Where the competent regulatory authorities have not been able to reach an agreement on terms and conditions or methodologies within the two-month deadline, or upon their joint request, the Agency shall adopt a decision concerning the amended terms and conditions or methodologies within six months, in accordance with Article 8(1) of Regulation (EC) No 713/2009. If the relevant TSOs fail to submit a proposal for amended terms and conditions or methodologies, the procedure provided for in Article 5 shall apply.
3. TSOs responsible for developing a proposal for terms and conditions or methodologies or regulatory authorities responsible for their adoption in accordance

with Article 5(2), Article 5(3) and Article 5(4) may request amendments of those terms and conditions or methodologies. The proposals for amendments to the terms and conditions or methodologies shall be submitted to consultation in accordance with the procedure set out in Article 10 and approved in accordance with the procedure set out in Article 4 and Article 5.

Article 7

Publication of terms and conditions or methodologies on the Internet

TSOs responsible for establishing the terms and conditions or methodologies in accordance with this Regulation shall publish them on the Internet following approval by the competent regulatory authorities or, if no such approval is required, following their establishment, except where such information is considered as confidential in accordance with Article 11.

Article 8

Recovery of costs

1. Costs relating to the obligations imposed on system operators or assigned third entities in accordance with this Regulation shall be assessed by the competent regulatory authorities.
2. Costs assessed as reasonable, efficient, and proportionate shall be recovered through network tariffs or other appropriate mechanisms as determined by the competent regulatory authorities.
3. If requested by the regulatory authorities, system operators or assigned entities shall, within three months of the request, provide information necessary to facilitate the assessment of the costs incurred.

Article 9

Stakeholder involvement

The Agency, in close cooperation with ENTSO-E, shall organise stakeholder involvement regarding the balancing market and other aspects of the implementation of this Regulation. Such involvement shall include regular meetings with stakeholders to identify problems and propose improvements related to the integration of the balancing market.

Article 10

Public consultation

1. TSOs responsible for submitting proposals for terms and conditions or methodologies or their amendments in accordance with this Regulation shall consult stakeholders, including the relevant authorities of each Member State, on the draft proposals for terms and conditions or methodologies and other implementing measures for a period of not less than one month.
2. The consultation shall last for a period of not less than one month, except for the draft proposals pursuant to Article 5(2)(a), (b), (c), (d), (f), (g), (i) and (l) shall be consulted for a period of not less than two months.
3. At least the proposals pursuant to Article 5(2)(a), (b), (c), (d), (e), (f), (g), (h), (i), (l) and (m) shall be subject to public consultation at European level.
4. At least the proposals pursuant to Article 5(3)(a), (b), (c), (d), (e), (i) and (j) shall be subject to public consultation at regional level.
5. At least the proposals pursuant to Article 5(4)(a), (b), (d), (e) and (f) shall be subject to public consultation in each concerned Member State.

6. TSOs responsible for the proposal for terms and conditions or methodologies shall duly consider the views of stakeholders resulting from the consultations undertaken in accordance with paragraphs 3 to 5, prior to its submission for regulatory approval. In all cases, a sound justification for including or not including the views resulting from the consultation shall be provided together with the submission and published in a timely manner before or simultaneously with the publication of the proposal for terms and conditions or methodologies.

Article 11

Confidentiality obligations

1. Any confidential information received, exchanged or transmitted pursuant to this Regulation shall be subject to the conditions of professional secrecy laid down in paragraphs 2, 3 and 4.
2. The obligation of professional secrecy shall apply to any person subject to the provisions of this Regulation.
3. Confidential information received by the persons or regulatory authorities referred to in paragraph 2 in the course of their duties may not be divulged to any other person or authority, without prejudice to cases covered by national law, the other provisions of this Regulation or other relevant Union legislation.
4. Without prejudice to cases covered by national law or Union legislation, regulatory authorities, bodies or persons who receive confidential information pursuant to this Regulation may use it only for the purpose of carrying out their duties under this regulation.

Article 12

Agreements with TSOs not bound by this Regulation

Where a synchronous area encompasses both Union and third country TSOs, within eighteen months after entry into force of this Regulation, all Union TSOs in that synchronous area shall endeavour to conclude with the third country TSOs not bound by this Regulation an agreement setting the basis for their cooperation concerning secure system operation and setting out arrangements for the compliance of the third country TSOs with the obligations set out in this Regulation.

Article 13

Publication of information

1. All entities referred to in Article 1(2) shall ensure that information in paragraphs 2, 3 and 4 are published at a time and in a format that does not create an actual or potential competitive advantage or disadvantage to any individual or category of individuals.
2. Each TSO shall publish the following:
 - (a) close to real-time information on the current balancing state of its control area;
 - (b) information on all balancing energy bids for both standard and specific products, anonymised where necessary, no later than 30 min after the end time of the validity period, which shall include:
 - (i) type of product;
 - (ii) validity period;
 - (iii) offered and activated volumes;

- (iv) offered and paid prices or initial prices until paid prices become available;
 - (v) activation purpose of activated bids;
 - (vi) information on whether the bid was declared as unavailable;
- (c) information on whether the bid was converted from a specific product or from an integrated scheduling process;
 - (d) information regarding how balancing energy bids from specific products or from integrated scheduling process have been converted into balancing energy bids for standard products;
 - (e) aggregated information on balancing energy bids no later than 30 min after the ending time of the validity period, which shall include:
 - (i) total volume of offered and activated balancing energy bids;
 - (ii) total volume of offered and activated balancing energy bids separately per type of reserves;
 - (iii) total volume of offered and activated balancing energy bids separately for standard and specific products;
 - (iv) volume of unavailable bids separately per type of reserves;
 - (f) information on all balancing capacity bids, anonymised where necessary, no later than one hour after the procurement process ends:
 - (i) type of product;
 - (ii) gate closure time and contracting period;
 - (iii) offered and procured volumes;
 - (iv) offered and paid prices or initial prices until paid prices become available;
 - (g) the initial terms and conditions related to balancing pursuant to Article 19 at least one month before the application and any amendments to the terms and conditions immediately following approval by the competent regulatory authority;
 - (h) information on the allocation of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves pursuant to Article 39 at the latest 24 hours after the allocation and no later than 6 hours before the use of the allocated cross-zonal capacity:
 - (i) date and time when the decision on allocation was made;
 - (ii) time period of the allocation;
 - (iii) volumes allocated;
 - (iv) market values used as a basis for the allocation process in accordance with Article 40;
 - (i) information on the use of allocated cross-zonal capacity for the exchange of balancing capacity or sharing of reserves pursuant to Article 39 at the latest one week after the use of allocated cross-zonal capacity:
 - (i) volume of allocated and used cross-zonal capacity per market time unit;

- (ii) volume of released cross-zonal capacity for subsequent timeframes per market time unit;
 - (iii) estimated realised costs and benefits of the allocation process;
 - (j) approved methodologies pursuant to Articles 41 to 43 at least one month before the application;
 - (k) description of the requirements of any algorithm developed and amendments to it pursuant to Article 60, at least one month before the application;
 - (l) common annual report pursuant to Article 61.
3. Each TSO may withhold the publication of information on offered prices of balancing capacity or balancing energy bids if justified for reasons of market power concerns.
 4. Each TSO shall publish the information pursuant to paragraph 2 in a commonly agreed harmonised format on a public website or through ENTSO-E on the central information transparency platform established pursuant to Article 3 of Commission Regulation (EU) No 543/2013.

Article 14

Delegation and assignment of tasks

1. A TSO may delegate all or part of any task which it is entrusted under this Regulation to one or more third parties in case the third party can carry out the respective function at least as effectively as the delegating TSO. The delegating TSO shall remain responsible for ensuring compliance with the obligations under this Regulation, including ensuring access to information necessary for monitoring by the regulatory authorities.
2. Prior to the delegation, the third party concerned shall demonstrate to the delegating TSO its ability to meet each of the obligations of this Regulation.
3. In the event that all or part of any tasks specified in this Regulation are delegated to a third party, the delegating TSO shall ensure that suitable confidentiality agreements in accordance with the confidentiality obligations of the delegating TSO have been put in place prior to the delegation. After delegating all or part of any tasks to a third party, the delegating TSO must inform the regulatory authority and publish this decision on the Internet.
4. A Member State, or where applicable a regulatory authority, may assign tasks or obligations entrusted to TSOs under this Regulation to one or more third parties. The concerned Member State, or where applicable the concerned regulatory authority, may only assign TSOs' tasks and obligations which do not have an impact on the operational security and integration of the balancing market, and which do not require direct cooperation, joint decision-making or entering into contractual relationship with TSOs from other Member States.
5. In the event that tasks and obligations are assigned to a third party by a Member State, or where applicable by a regulatory authority, references to TSO in this Regulation shall be understood as referring to the assigned entity. The competent regulatory authority shall ensure regulatory oversight of the assigned entity.

TITLE II
ELECTRICITY BALANCING MARKET
CHAPTER 1
FUNCTIONS AND RESPONSIBILITIES

Article 15
Role of the TSOs

1. Each TSO shall be responsible for procuring balancing services from balancing service providers to ensure operational security.
2. Each TSO shall apply a self-dispatching model for determining generation schedules and consumption schedules. TSOs applying a central dispatching model at the time of the entry into force of this Regulation may submit an application for an exemption to the regulatory authority in order to be allowed to continue to apply a central dispatching model for determining generation schedules and consumption schedules. The regulatory authority shall verify whether the tasks and responsibilities of the TSO are consistent with the terms defined in Article 2(16) and Article 2(17). The regulatory authority shall issue a reasoned decision concerning the request for the exemption in accordance with Article 5(4).

Article 16
Cooperation with DSOs

1. DSOs, TSOs, balancing service providers and balance responsible parties shall cooperate to ensure efficient and effective balancing.
2. Each DSO shall provide, in due time, all necessary information to perform the imbalance settlement to the connecting TSO in accordance with the terms and conditions related to balancing pursuant to Article 19.
3. By one year after the entry into force of this Regulation, each TSO shall, together with the reserve connecting DSOs within the TSO's control area, jointly elaborate a methodology for allocating costs resulting from actions of DSOs pursuant to Article 182(4) and Article 182(5) of Commission Regulation (EU) 2017/000 [SO]. The methodology shall provide for a fair allocation of costs taking into account the responsibilities of the parties involved.
4. DSOs shall report to the connecting TSO any limits defined pursuant to Article 182(4) and Article 182(5) of Commission Regulation (EU) 2017/000 [SO] that could affect the requirements set out in this Regulation.

Article 17
Role of balancing service providers

1. A balancing service provider shall qualify for the provision of bids for balancing energy or balancing capacity. The qualification shall be based on the successful completion of the prequalification process pursuant to Article 159 and Article 162 of Commission Regulation (EU) 2017/000 [SO]. A balancing service provider may qualify for providing bids for balancing energy or balancing capacity which are activated or procured by the connecting TSO or, in a TSO-BSP model, by the contracting TSO.
2. Each balancing service provider shall submit its balancing capacity bids to the connecting TSO to which the balancing service provider affects one or more balance responsible parties.

3. Each balancing service provider participating in the procurement process for balancing capacity shall submit and have the right to update its balancing capacity bids before the gate closure time of the procurement process.
4. Each balancing service provider with a contract for balancing capacity shall submit to its connecting TSO the balancing energy bids or integrated scheduling process bids corresponding to the volume, products, and other requirements set out in the balancing capacity contract.
5. Any balancing service provider shall have the right to submit to its connecting TSO the balancing energy bids for standard products or specific products or integrated scheduling process bids for which it has passed the prequalification process pursuant to Article 159 and Article 162 of Commission Regulation (EU) 2017/000 [SO].
6. The price of the balancing energy bids or integrated scheduling process bids pursuant to paragraph 5 shall not be predetermined in a contract for balancing capacity. A TSO may propose an exemption to this rule in the proposal for the terms and conditions related to balancing developed pursuant to Article 19. Such an exemption shall only apply to specific products pursuant to Article 26(3)(b) and be accompanied with a justification demonstrating higher economic efficiency.
7. There shall be no discrimination between balancing energy bids or integrated scheduling process bids submitted pursuant to paragraph 5 and balancing energy bids or integrated scheduling process bids submitted pursuant to paragraph 6.
8. For each product for balancing energy or balancing capacity, the reserve providing unit, the reserve providing group, the demand facility or the third party and the associated balance responsible parties pursuant to Article 19(3)(d), shall belong to the same control area or scheduling area.

Article 18

Role of balance responsible parties

1. In real time, each balance responsible party shall strive to be balanced or help the power system to be balanced. The detailed requirements concerning this obligation shall be defined in the proposal for terms and conditions related to balancing developed pursuant to Article 19.
2. Each balance responsible party shall be financially responsible for the imbalances to be settled with the connecting TSO.
3. Prior to the intraday cross-zonal gate closure time, each balance responsible party may change the schedules required to calculate its position pursuant to Article 56. TSOs applying a central dispatching model may establish specific conditions and rules for changing the schedules of a balance responsible party in the terms and conditions related to balancing developed pursuant to Article 19.
4. After the intraday cross-zonal gate closure time, each balance responsible party may change the internal commercial schedules required to calculate its position pursuant to Article 56 in accordance with the rules set out in the terms and conditions related to balancing developed pursuant to Article 19.

Article 19

Terms and conditions related to balancing

1. Each TSO shall develop a proposal for its control area or scheduling area regarding:
 - (a) the terms and conditions for balancing service providers;

- (b) the terms and conditions for balance responsible parties.
2. When developing proposals for terms and conditions for balancing service providers and balance responsible parties, each TSO shall:
 - (a) coordinate with the TSOs and DSOs that might be affected by these terms and conditions;
 - (b) respect the frameworks for the establishment of European platforms for the exchange of balancing energy and for the imbalance netting process pursuant to Articles 20 to 23;
 - (c) involve other DSOs and other stakeholders throughout the development of the proposal and take into account their views without prejudice to public consultation pursuant to Article 10.
 3. The terms and conditions for balancing service providers shall:
 - (a) define reasonable and justified requirements for the provisions of balancing services;
 - (b) allow the aggregation of demand facilities and power generating facilities in a control area or scheduling area to offer balancing services subject to conditions defined pursuant to paragraph 4(c);
 - (c) allow demand facility owners, third parties and owners of power generating facilities from conventional and renewable energy sources as well as owners of energy storage units to become balancing service providers;
 - (d) not impose any floors or caps below the value of lost load on balancing energy prices, including bidding and clearing prices, pursuant to Article 47(2);
 - (e) require that each balancing energy bid from a balancing service provider is assigned to one or more balance responsible parties to enable the calculation of an imbalance adjustment pursuant to Article 51.
 4. The terms and conditions for balancing service providers shall contain:
 - (a) the rules for the prequalification process to become a balancing service provider established in accordance with Article 159 and Article 162 of Commission Regulation (EU) 2017/000 [SO];
 - (b) the rules, requirements and timescales for the procurement and transfer of balancing capacity pursuant to Articles 32 to 34;
 - (c) the rules and conditions for the aggregation of demand facilities and power generating facilities in a control area or scheduling area to become a balancing service provider;
 - (d) the requirements on data and information to be delivered to the connecting TSO and, where relevant, to the reserve connecting DSO during the prequalification process and operation of the balancing market;
 - (e) the rules and conditions for the assignment of each balancing energy bid from a balancing service provider to one or more balance responsible parties pursuant to paragraph 3(d);
 - (f) the requirements on data and information to be delivered to the connecting TSO and, where relevant, to the reserve connecting DSO to evaluate the provisions of balancing services, and to calculate imbalances pursuant to Article 154(1),

Article 154(8), Article 158(1)(e), Article 158(5), Article 161(1)(f) and Article 161(5) of Commission Regulation (EU) 2017/000 [SO];

- (g) the definition of a location for each standard product and each specific product taking into account paragraph 4(c);
- (h) the rules for the determination of the volume of balancing energy to be settled with the balancing service provider pursuant to Article 46;
- (i) the rules for the settlement of balancing service providers defined pursuant to Chapter 2 and Chapter 5 of Title V;
- (j) a maximum period for the finalisation of the settlement of balancing energy with a balancing service provider in accordance with Article 46, for any given imbalance settlement period;
- (k) the consequences in case of non-compliance with the terms and conditions applicable to balancing service providers.

5. The terms and conditions for balance responsible parties shall contain:

- (a) the definition of balance responsibility for each connection in a way that avoids any gaps or overlaps in the balance responsibility of different market participants providing services to that connection;
- (b) the requirements for becoming a balance responsible party;
- (c) the requirement that all balance responsible parties shall be financially responsible for their imbalances, and that the imbalances shall be settled with the connecting TSO;
- (d) the requirements on data and information to be delivered to the connecting TSO to calculate the imbalances;
- (e) the rules for balance responsible parties to change their schedules prior to and after the intraday energy gate closure time pursuant to Article 18(3) and Article 18(4);
- (f) the rules for the settlement of balance responsible parties defined pursuant to Chapter 4 of Title V;
- (g) the delineation of an imbalance price area pursuant to Article 54(2)(c) and an imbalance area pursuant to Article 56(2);
- (h) a maximum period for the finalisation of the settlement of imbalances with balance responsible parties for any given imbalance settlement period pursuant to Article 56;
- (i) the consequences in case of non-compliance with the terms and conditions applicable to balance responsible parties;
- (j) an obligation for balance responsible parties to submit to the connecting TSO any modifications of the position;
- (k) the settlement rules pursuant to Articles 54 to 57;
- (l) the provisions for the exclusion of imbalances from the imbalance settlement when they are associated with the introduction of ramping restrictions for the alleviation of deterministic frequency deviations pursuant to Article 137(4) of Commission Regulation (EU) 2017/000 [SO].

6. Each connecting TSO may include the following elements in the proposal for the terms and conditions for balancing service providers or in the terms and conditions for balance responsible parties:
 - (a) a requirement for balancing service providers to provide information on unused generation capacity and other balancing resources from balancing service providers, after the day-ahead market gate closure time and after the intraday cross-zonal gate closure time;
 - (b) an exemption to publish information on offered prices of balancing energy or balancing capacity bids due to market power concerns pursuant to Article 13(3);
 - (c) an exemption for specific products defined in Article 26(3)(b) to predetermine the price of the balancing energy bids from a balancing capacity contract pursuant to Article 17(6);
 - (d) an application for the occasional use of dual pricing for all imbalances pursuant to Article 54(2)(d).
7. TSOs applying a central dispatching model shall also include the following elements in the terms and conditions related to balancing:
 - (a) the integrated scheduling process gate closure time pursuant to Article 24(5);
 - (b) the rules for updating the integrated scheduling process bids after the integrated scheduling process gate closure time pursuant to Article 24(6);
 - (c) the rules to activate integrated scheduling process bids prior to the balancing energy gate closure time pursuant to Article 24(7);
 - (d) the rules for converting integrated scheduling process bids pursuant to Article 27.
8. Each TSO shall monitor the fulfilment by all parties of the requirements set out in the terms and conditions for balancing.

CHAPTER 2

EUROPEAN PLATFORMS FOR THE EXCHANGE OF BALANCING ENERGY

Article 20

European platform for the exchange of balancing energy from replacement reserves

1. By six months after entry into force of this Regulation, all TSOs performing the replacement reserve process pursuant to Part IV of Commission Regulation (EU) 2017/000 [SO] shall develop a proposal for the implementation framework for a European platform for the exchange of balancing energy from replacement reserves.
2. The European platform for the exchange of balancing energy from replacement reserves shall be based on common governance principles and business processes and shall consist of at least the activation optimisation function and the TSO-TSO settlement function. This European platform shall apply a multilateral TSO-TSO model with common merit order lists to share and exchange all balancing energy bids from all standard products for replacement reserves, except for unavailable bids pursuant to Article 30(1)(b).
3. The proposal in paragraph 1 shall include at least:
 - (a) the high level design of the European platform;
 - (b) the roadmap and timelines for the implementation of the European platform;
 - (c) the definition of the functions required to operate the European platform;

- (d) the proposed rules concerning the governance and operation of entity or entities operating the European platform, based on the principle of non-discrimination and ensuring equitable treatment of all member TSOs and that no TSO benefits from unjustified economic advantages through the participation in the functions of the European platform;
 - (e) the proposed appointment of the entity or entities that will perform the functions defined in the proposal. Where the TSOs propose to appoint more than one entity:
 - (i) a proposal for a coherent allocation of the functions between the entities operating the European platform. The proposal shall take full account of the need to coordinate the different functions allocated to the entities operating the European platform;
 - (ii) an assessment demonstrating that the proposed setup of the European platform and allocation of functions is efficient and effective, and supports the objectives of this Regulation;
 - (iii) an effective coordination and decision making process to resolve any conflicting positions between entities operating the European platform;
 - (f) the framework for harmonisation of the terms and conditions related to balancing developed pursuant to Article 19;
 - (g) the balancing energy gate closure time for all standard products for replacement reserves in accordance with Article 24;
 - (h) the TSO energy bid submission gate closure time in accordance with Article 29(11);
 - (i) the common merit order lists to be organised by the common activation optimisation function pursuant to Article 31;
 - (j) the description of the algorithm for the operation of the activation optimisation function for the balancing energy bids from all standard products for replacement reserves in accordance with Article 60.
4. By one year after entry into force of this Regulation, all TSOs shall appoint the entity or entities entrusted with operating the European platform pursuant to paragraph 3(e).
5. By two years after entry into force of this Regulation, all TSOs performing the reserve replacement process pursuant to Part IV of Commission Regulation (EU) 2017/000 [SO] and that have at least one interconnected neighbouring TSO performing the replacement reserves process shall implement and make operational the European platform for the exchange of balancing energy from replacement reserves. They shall use the European platform to:
- (a) submit all balancing energy bids from all standard products for replacement reserves;
 - (b) share and exchange all balancing energy bids from all standard products for replacement reserves, except for unavailable bids pursuant to Article 30(1)(b);
 - (c) strive to fulfil all their needs for balancing energy from replacement reserves.

Article 21

European platform for the exchange of balancing energy from frequency restoration reserves with manual activation

1. By one year after entry into force of this Regulation, all TSOs shall develop a proposal for the implementation framework for a European platform for the exchange of balancing energy from frequency restoration reserves with manual activation.
2. The European platform for the exchange of balancing energy from frequency restoration reserves with manual activation shall be based on common governance principles and business processes and shall consist of at least the activation optimisation function and the TSO-TSO settlement function. This European platform shall apply a multilateral TSO-TSO model with common merit order lists to share and exchange all balancing energy bids from all standard products for frequency restoration reserves with manual activation, except for unavailable bids pursuant to Article 30(1)(b).
3. The proposal in paragraph 1 shall include at least:
 - (a) the high level design of the European platform;
 - (b) the roadmap and timelines for the implementation of the European platform;
 - (c) the definition of the functions required to operate the European platform;
 - (d) the proposed rules concerning the governance and operation of entity or entities operating the European platform, based on the principle of non-discrimination and ensuring equitable treatment of all member TSOs and that no TSO benefits from unjustified economic advantages through the participation in the functions of the European platform;
 - (e) the proposed appointment of the entity or entities that will perform the functions defined in the proposal. Where the TSOs propose to appoint more than one entity:
 - (i) a proposal for a coherent allocation of the functions between the entities operating the European platform. The proposal shall take full account of the need to coordinate the different functions allocated to the entities operating the European platform;
 - (ii) an assessment demonstrating that the proposed setup of the European platform and allocation of functions is efficient and effective, and supports the objectives of this Regulation;
 - (iii) an effective coordination and decision making process to resolve any conflicting positions between entities operating the European platform;
 - (f) the framework for harmonisation of the terms and conditions related to balancing developed pursuant to Article 19;
 - (g) the balancing energy gate closure time for all standard products for frequency restoration reserves with manual activation in accordance with Article 24;
 - (h) the TSO energy bid submission gate closure time in accordance with Article 29(11);
 - (i) the common merit order lists to be organised by the common activation optimisation function pursuant to Article 31;

- (j) the description of the algorithm for the operation of the activation optimisation function for the balancing energy bids from all standard products for frequency restoration reserves with manual activation in accordance with Article 60.
- 4. By two years after entry into force of this Regulation, all TSOs shall appoint the entity or entities entrusted with operating the European platform pursuant to paragraph 3(e).
- 5. By three years after entry into force of this Regulation, all TSOs may develop a proposal for modification of the European platform for the exchange of balancing energy from frequency restoration reserves with manual activation pursuant to paragraph 1. Proposed modifications shall be supported by a cost-benefit analysis performed by all TSOs pursuant to Article 63. The proposal shall be notified to the Commission, which shall take the proposal in consideration when suggesting amendments to this Regulation.
- 6. By four years after entry into force of this Regulation, all TSOs shall implement and make operational the European platform for the exchange of balancing energy from frequency restoration reserves with manual activation. They shall use the European platform to:
 - (a) submit all balancing energy bids from all standard products for frequency restoration reserves with manual activation;
 - (b) share and exchange all balancing energy bids from all standard products for frequency restoration reserves with manual activation, except for unavailable bids pursuant to Article 30(1)(b);
 - (c) strive to fulfil all their needs for balancing energy from the frequency restoration reserves with manual activation.

Article 22

European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation

- 1. By one year after entry into force of this Regulation, all TSOs performing the automatic frequency restoration reserve process pursuant to Part IV of Commission Regulation (EU) 2017/000 [SO] shall develop a proposal for the implementation framework for a European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation.
- 2. The European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation shall be based on common governance principles and business processes and shall consist of at least the activation optimisation function and the TSO-TSO settlement function. This European platform shall apply a multilateral TSO-TSO model with common merit order lists to share and exchange all balancing energy bids from all standard products for frequency restoration reserves with automatic activation, except for unavailable bids pursuant to Article 30(1)(b).
- 3. The proposal in paragraph 1 shall include at least:
 - (a) the high level design of the European platform;
 - (b) the roadmap and timelines for the implementation of the European platform;
 - (c) the definition of the functions required to operate the European platform;

- (d) the proposed rules concerning the governance and operation of entity or entities operating the European platform, based on the principle of non-discrimination and ensuring equitable treatment of all member TSOs and that no TSO benefits from unjustified economic advantages through the participation in the functions of the European platform;
 - (e) the proposed appointment of the entity or entities that will perform the functions defined in the proposal. Where the TSOs propose to appoint more than one entity:
 - (i) a proposal for a coherent allocation of the functions between the entities operating the European platform. The proposal shall take full account of the need to coordinate the different functions allocated to the entities operating the European platform;
 - (ii) an assessment demonstrating that the proposed setup of the European platform and allocation of functions is efficient and effective, and supports the objectives of this Regulation;
 - (iii) an effective coordination and decision making process to resolve any conflicting positions between entities operating the European platform;
 - (f) the framework for harmonisation of the terms and conditions related to balancing developed pursuant to Article 19;
 - (g) the balancing energy gate closure time for all standard products for frequency restoration reserves with automatic activation in accordance with Article 24;
 - (h) the TSO energy bid submission gate closure time in accordance with Article 29(11);
 - (i) the common merit order lists to be organised by the common activation optimisation function pursuant to Article 31;
 - (j) the description of the algorithm for the operation of the activation optimisation function for the balancing energy bids from all standard products for frequency restoration reserves with automatic activation in accordance with Article 60.
4. By two years after entry into force of this Regulation, all TSOs shall appoint the entity or entities entrusted with operating the European platform pursuant to paragraph 3(e).
 5. By three years after entry into force of this Regulation, all TSOs performing the automatic frequency restoration reserve process pursuant to Part IV of Commission Regulation (EU) 2017/000 [SO] may develop a proposal for modification of the European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation pursuant to paragraph 1. Proposed modifications shall be supported by a cost-benefit analysis performed by the concerned TSOs pursuant to Article 63. The proposal shall be notified to the Commission, which shall take the proposal in consideration when suggesting amendments to this Regulation.
 6. By four years after entry into force of this Regulation, all TSOs performing the automatic frequency restoration process pursuant to Part IV of Commission Regulation (EU) 2017/000 [SO] shall implement and make operational the European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation. They shall use the European platform to:

- (a) submit all balancing energy bids from all standard products for frequency restoration reserves with automatic activation;
- (b) share and exchange all balancing energy bids from all standard products for frequency restoration reserves with automatic activation, except for unavailable bids pursuant to Article 30(1)(b);
- (c) strive to fulfil all their needs for balancing energy from the frequency restoration reserves with automatic activation.

Article 23

European platform for imbalance netting process

1. By one year after entry into force of this Regulation, all TSOs performing the automatic frequency restoration reserve process pursuant to Part IV of Commission Regulation (EU) 2017/000 [SO] shall develop a proposal for the implementation framework for a European platform for the imbalance netting process.
2. The European platform for the imbalance netting process shall be based on common governance principles and business processes and shall consist of at least the imbalance netting process function and the TSO-TSO settlement function. The European platform shall apply a multilateral TSO-TSO model to perform the imbalance netting process in times when economically efficient.
3. The proposal in paragraph 1 shall include at least:
 - (a) the high level design of the European platform;
 - (b) the roadmap and timelines for the implementation of the European platform;
 - (c) the definition of functions required to operate the European platform;
 - (d) the proposed rules concerning the governance and operation of entity or entities operating the European platform, based on the principle of non-discrimination and ensuring equitable treatment of all member TSOs and that no TSO benefits from unjustified economic advantages through the participation in the functions of the European platform;
 - (e) the proposed appointment of the entity or entities that will perform the functions defined in the proposal. Where the TSOs propose to appoint more than one entity:
 - (i) a proposal for a coherent allocation of the functions between the entities operating the European platform. The proposal shall take full account of the need to coordinate the different functions allocated to the entities operating the European platform;
 - (ii) an assessment demonstrating that the proposed setup of the European platform and allocation of functions is efficient and effective, and supports the objectives of this Regulation;
 - (iii) an effective coordination and decision making process to resolve any conflicting positions between entities operating the European platform;
 - (f) the framework for harmonisation of the terms and conditions related to balancing developed pursuant to Article 19;
 - (g) the description of the algorithm for the operation of imbalance netting process function in accordance with Article 60.

4. By one year after entry into force of this Regulation, all TSOs shall appoint the entity or entities entrusted with operating the European platform pursuant to paragraph 3(e).
5. By two years after entry into force of this Regulation, all TSOs performing the automatic frequency restoration reserve process pursuant to Part IV of Commission Regulation (EU) 2017/000 [SO] shall implement and make operational the European platform for the imbalance netting process. They shall use the European platform to perform the imbalance netting process, at least for the Continental Europe ('CE') synchronous area.

Article 24

Balancing energy gate closure time

1. As part of the proposals pursuant to Articles 20 to 22, all TSOs shall harmonise the balancing energy gate closure time for standard products at Union level, at least for each of the following processes:
 - (a) replacement reserves;
 - (b) frequency restoration reserves with manual activation;
 - (c) frequency restoration reserves with automatic activation.
2. Balancing energy gate closure times shall:
 - (a) be as close as possible to real time;
 - (b) be no longer than sixty minutes before real time;
 - (c) ensure sufficient time for the necessary balancing processes.
3. After the balancing energy gate closure time, the update of balancing energy bids is no longer permitted.
4. After the balancing energy gate closure time, balancing service providers shall report to the connecting TSO and to the DSO to which it has a connection point any unexpected unavailable volumes of balancing energy bids without undue delay. Connecting TSOs shall qualify such balancing energy bids as invalid in the concerned common merit order list.
5. By two years after entry into force of this Regulation, each TSO applying a central dispatching model shall define at least one integrated scheduling process gate closure time which shall:
 - (a) enable balancing service providers to update their integrated scheduling bids as close as possible to real time;
 - (b) be no longer than eight hours before real-time;
 - (c) be set before the TSO energy bid submission gate closure time.
6. After each integrated scheduling process gate closure time, the integrated scheduling process bid can only be changed in accordance with the rules defined by the connecting TSO in the terms and conditions for balancing service providers developed pursuant to Article 19. These rules shall be implemented before the connecting TSO joins any process for the exchange of balancing energy and shall allow balancing service providers to update their integrated scheduling bids to the extent possible until the intraday cross-zonal gate closure time, while ensuring:
 - (a) the economic efficiency of the integrated scheduling process;

- (b) operational security;
 - (c) consistency of all iterations of the integrated scheduling process;
 - (d) fair and equal treatment of all balancing service providers in the control area;
 - (e) no negative effect on the integrated scheduling process.
7. Each TSO applying a central dispatching model shall establish the rules to integrated scheduling process bids before the balancing energy gate closure time in accordance with Article 19(7)(d) in order to:
- (a) ensure that the TSO meets its reserve capacity requirements in real time;
 - (b) ensure sufficient resources to solve internal congestions;
 - (c) ensure the possibility of feasible dispatching of power generating facilities and demand facilities in real time.

Article 25

Requirements for standard products

1. Each TSO shall use standard products in order to ensure operational security and to maintain the system's balance in accordance with Article 127, Article 157 and Article 160 of Commission Regulation (EU) 2017/000 [SO].
2. By six months after entry into force of this Regulation, all TSOs shall develop a proposal for a list of standard products for balancing energy and balancing capacity for frequency restoration reserves and replacement reserves.
3. At least every two years, all TSOs shall review the list of standard products for balancing energy and balancing capacity. The review of standard products shall consider:
 - (a) the objectives set out in Article 3(1);
 - (b) the possible reduction of the number of standard products and the number of common merit order lists pursuant to Article 31(2);
 - (c) the performance indicators set out in Article 61(4).
4. The list of standard products for balancing energy and balancing capacity shall set out at least the following characteristics of a standard product bid:
 - (a) preparation period;
 - (b) ramping period;
 - (c) full activation time;
 - (d) minimum and maximum quantity;
 - (e) deactivation period;
 - (f) minimum and maximum duration of delivery period;
 - (g) validity period;
 - (h) mode of activation.
5. The list of standard products for balancing energy and balancing capacity shall set out at least the following variable characteristics of a standard product to be determined by the balancing service providers during the prequalification or when submitting the standard product bid:

- (a) price of the bid;
 - (b) divisibility;
 - (c) location;
 - (d) minimum duration between the end of deactivation period and the following activation.
6. Standard products for balancing energy and balancing capacity shall:
- (a) ensure an efficient standardisation, foster cross-border competition and liquidity, and avoid undue market fragmentation;
 - (b) facilitate the participation of demand facility owners, third parties and owners of power generating facilities from renewable energy sources as well as owners of energy storage units as balancing service providers;
 - (c) satisfy the needs of TSOs in order to ensure operational security and efficiently fulfil frequency quality target parameters and reserve capacity requirements pursuant to Article 127, Article 157 and Article 160 of Commission Regulation (EU) 2017/000 [SO].

Article 26
Requirements for specific products

1. Following the submission to the regulatory authorities of the list of standard products pursuant to Article 25, each TSO may develop a proposal for defining and using specific products for balancing energy and balancing capacity. This proposal shall include at least:
 - (a) a definition of specific products and of the time period in which they will be used;
 - (b) a demonstration that standard products are not sufficient to ensure operational security and to maintain the system balance or a demonstration that some balancing resources cannot participate in the balancing market through standard products;
 - (c) a description of measures proposed to minimise the use of specific products subject to economic efficiency;
 - (d) the rules for converting the balancing energy bids from specific products into balancing energy bids for standard products, where such conversion is possible;
 - (e) where applicable, the information on the process for the conversion of balancing energy bids from specific products into balancing energy bids for standard products and the information on which common merit order list the conversion will take place;
 - (f) a demonstration that the specific products do not create significant inefficiencies and distortions in the balancing market within and outside the control area.
2. Each TSO using specific products shall review at least once a year the necessity to use specific products in accordance with the criteria laid down in paragraph 1.
3. Following the approval of the proposal for specific products, the connecting TSO may:
 - (a) convert the balancing energy bids from specific products into balancing energy bids for standard products; or

- (b) in case the conversion is not possible, activate the balancing energy bids from specific products locally without sharing them.
4. The rules for converting balancing energy bids from specific products into balancing energy bids for standard products pursuant to paragraph 1(d) shall:
- (a) be fair, transparent and non-discriminatory;
 - (b) not create barriers for the exchange of balancing services;
 - (c) ensure the financial neutrality of TSOs.

Article 27

Conversion of bids in a central dispatching model

1. Each TSO applying a central dispatching model shall use the integrated scheduling process bids for the exchange of balancing services or for the sharing of reserves.
2. Each TSO applying a central dispatching model shall use the integrated scheduling process bids available for the real time management of the system to provide balancing services to other TSOs, while respecting operational security constraints.
3. Each TSO applying a central dispatching model shall convert the integrated scheduling process bids into standard products taking into account operational security. The rules for converting the integrated scheduling process bids into standard products shall:
 - (a) be defined within the terms and conditions related to balancing developed pursuant to Article 19;
 - (b) be fair, transparent and non-discriminatory;
 - (c) not create barriers for the exchange of balancing services;
 - (d) ensure the financial neutrality of TSOs.

Article 28

Fall-back procedures

1. Each TSO shall ensure that fall-back solutions are in place in case the normal procedures fail in accordance with paragraphs 2 and 3.
2. If the procurement of balancing services fails, the concerned TSOs shall repeat the procurement process. TSOs shall inform market participants that fall-back procedures will be used as soon as possible.
3. If the coordinated activation of balancing energy fails, each TSO may deviate from the common merit order list activation and shall inform market participants as soon as possible.

**TITLE III
PROCUREMENT OF BALANCING SERVICES**

**CHAPTER 1
BALANCING ENERGY**

Article 29

Activation of balancing energy bids

1. For ensuring operational security, each TSO shall use cost-effective balancing energy bids available for delivery in its control area based on common merit order lists.

2. If balancing energy bids are activated for purposes other than balancing, the price of these activated balancing energy bids shall not determine the imbalance price and shall not set the price of balancing energy in case marginal price is applied.
3. TSOs shall not activate balancing energy bids before the corresponding balancing energy gate closure time, except in the alert state or the emergency state when such activations help alleviate the severity of these system states and except when the bids serve purposes other than balancing pursuant to paragraph 4.
4. By one year after the entry into force of this Regulation, all TSOs shall develop a methodology for classifying the activation purposes of balancing energy bids. This methodology shall:
 - (a) describe all possible purposes for the activation of balancing energy bids;
 - (b) define classification criteria for each possible activation purpose.
5. For each balancing energy bid activated from the common merit order list, the TSO activating the bid shall define the activation purpose based on the methodology pursuant to paragraph 4. The activation purpose shall be notified and visible to all TSOs through the activation optimisation function.
6. Balancing energy bids for frequency restoration reserves with automatic activation shall be exclusively available for the purpose of maintaining the active power balance.
7. In the event that the activation of balancing energy bids for balancing purposes deviates from the merit order, the TSO shall publish the information about the reasons for the occurrence of such deviation in a timely manner.
8. The request for activation of a balancing energy bid from the activation optimisation function shall oblige the requesting TSO and connecting TSO to accept the firm exchange of balancing energy. Each connecting TSO shall ensure the activation of the balancing energy bid selected by the activation optimisation function. The balancing energy shall be settled between the requesting TSO and the connecting TSO pursuant to Article 52 and between the connecting TSO and the balancing service provider pursuant to Chapter 2 of Title V.
9. The activation of balancing energy bids shall be based on a TSO-TSO model.
10. Each TSO shall submit all necessary data for the operation of the algorithm in Article 60(1) and Article 60(2) to the activation optimisation function in accordance with the rules developed pursuant to Article 31(1).
11. Each connecting TSO shall submit, prior to the TSO energy bid submission gate closure time, all balancing energy bids received from balancing service providers to the activation optimisation function, taking into account the requirements in Article 26, Article 27 and Article 30. The connecting TSOs shall not modify or withhold balancing energy bids, except for balancing energy bids related to Article 26 and Article 27.
12. Each requesting TSO may request the activation of balancing energy bids from the common merit order lists up to the total volume of balancing energy. The total volume of balancing energy that can be activated by the requesting TSO from balancing energy bids from the common merit order lists is a sum of volumes of:
 - (a) balancing energy bids submitted by the requesting TSO not resulting from sharing of reserves or exchange of balancing capacity;

- (b) balancing energy bids submitted by other TSOs as a result of balancing capacity procured on behalf of the requesting TSO;
 - (c) balancing energy bids resulting from the sharing of reserves under the condition that the other TSOs participating in the sharing of reserves have not already requested the activation of these shared volumes.
13. All TSOs may establish in the proposals for the implementation frameworks for the European platforms pursuant to Articles 20 to 22 the conditions or situations in which the limitation in paragraph 12 shall not apply. When a TSO requests balancing energy bids beyond the limits set out in paragraph 12, all other TSOs shall be informed in a timely manner.

Article 30

Requirements for unavailable bids

1. Each TSO may declare the following balancing energy bids submitted to the activation optimisation function as unavailable for the activation by other TSOs:
 - (a) unshared balancing energy bids with the highest prices;
 - (b) balancing energy bids marked as restricted due to internal congestion or to operational security constraints within the connecting TSO area.
2. Each TSO may declare unshared bids as unavailable for activation pursuant to paragraph 1(a) only before the deadlines by which all TSOs shall use the European platforms pursuant to Article 20(5), Article 21(6) and Article 22(6).
3. The following requirements on the maximum volume of unshared bids shall apply:
 - (a) the volume of unshared bids for replacement reserves shall not be higher than the volume of balancing capacity for replacement reserves procured by the TSO reduced by the balancing energy bids from specific products for replacement reserves pursuant to Article 26(3)(b);
 - (b) the volume of unshared bids for frequency restoration reserves with manual activation shall not be higher than the volume of balancing capacity for frequency restoration reserves with manual activation procured by the TSO reduced by the balancing energy bids from specific products for frequency restoration reserves with manual activation pursuant to Article 26(3)(b);
 - (c) the volume of unshared bids for frequency restoration reserves with automatic activation shall not be higher than the volume of balancing capacity for frequency restoration reserves with automatic activation procured by the TSO reduced by the balancing energy bids from specific products for frequency restoration reserves with automatic activation pursuant to Article 26(3)(b).
4. Each TSO declaring unshared balancing energy bids pursuant to paragraph 1(a) shall develop a methodology for the application of unshared balancing energy bids. Based on this methodology, the TSO shall regularly and, at least every year, recalculate the volume of unshared bids for replacement reserves, or for frequency restoration reserves with manual activation, or for frequency restoration reserves with automatic activation.

Article 31
Activation optimisation function

1. All TSOs shall establish an activation optimisation function in accordance with Article 29 and this Article for the optimisation of the activation of balancing energy bids from different common merit order lists. This function shall at least take into account:
 - (a) activation processes and technical constraints from different balancing energy products;
 - (b) operational security;
 - (c) all balancing energy bids included in the compatible common merit order lists;
 - (d) the possibility to net the counteracting activation requests from TSOs;
 - (e) submitted activation requests of all TSOs;
 - (f) available cross-zonal capacity.
2. Common merit order lists shall consist of balancing energy bids for standard products. All TSOs shall establish the necessary common merit order lists for the standard products. Upward and downward balancing energy bids shall be separated in different common merit order lists.
3. Each activation optimisation function shall use at least one common merit order list for upward balancing energy bids and one common merit order list for downward balancing energy bids.
4. TSOs shall ensure that the balancing energy bids submitted to the common merit order lists are expressed in euros and make reference to the market time unit.
5. Depending on the requirement for standard products for balancing energy, TSOs may create more common merit order lists.
6. Each TSO shall submit its activation requests for balancing energy bids to the activation optimisation function.
7. The activation optimisation function shall select balancing energy bids and request the activation of selected balancing energy bids from the connecting TSOs where the balancing service provider, associated with the selected balancing energy bid, is connected.
8. The activation optimisation function shall submit the confirmation of the activated balancing energy bids to the TSO requesting the activation of the balancing energy bids. The activated balancing service providers shall be responsible for delivering the requested volume until the end of the delivery period.
9. All TSOs that operate the frequency restoration process and the reserve replacement process to balance their control area shall strive to use all balancing energy bids from relevant common merit order lists to balance the system in the most efficient way, taking into account operational security.
10. TSOs that do not use the reserve replacement process to balance their control area shall strive to use all balancing energy bids from relevant common merit order lists for frequency restoration reserves to balance the system in the most efficient way, taking into account operational security.

11. Except in the normal state, TSOs may decide to balance the system using only the balancing energy bids from balancing service providers in its own control area if such decision helps alleviate the severity of the current system state. The TSO shall publish a justification for such decision without undue delay.

CHAPTER 2 BALANCING CAPACITY

Article 32 Procurement rules

1. Each TSO shall define the rules for the procurement of balancing capacity in the proposal for the terms and conditions related to balancing service providers developed pursuant to Article 19. The rules for the procurement of balancing capacity shall comply with the following principles:
 - (a) the procurement method shall be market-based for at least the frequency restoration reserves and the replacement reserves;
 - (b) the procurement process shall be performed close to real time to the extent possible;
 - (c) the contracted volume may be divided into several contracting periods.
2. The procurement of upward and downward balancing capacity for at least the frequency restoration reserves and the replacement reserves shall be carried out separately.

Article 33 Exchange of balancing capacity in a form of TSO-TSO model

1. Two or more TSOs exchanging or willing to exchange balancing capacity shall develop a proposal for the establishment of common and harmonised rules and processes for the exchange and procurement of balancing capacity while respecting the requirements set out in Article 32.
2. Except in cases where the TSO-BSP model is applied pursuant to Article 35, the exchange of balancing capacity shall always be performed based on a TSO-TSO model whereby two or more TSOs establish a common procurement of balancing capacity taking into account the available cross-zonal capacity and the operational limits defined in Chapter 1 and Chapter 2 of Part IV Title 8 of Commission Regulation (EU) 2017/000 [SO].
3. All TSOs exchanging balancing capacity shall submit all balancing capacity bids for standard products to the capacity procurement optimisation function. TSOs shall not modify or withhold any balancing capacity bids and shall include them in the procurement process, except under conditions set out in Article 26 and Article 27.
4. All TSOs exchanging balancing capacity or sharing of reserves shall ensure both the availability of cross-zonal capacity and that the operational security requirements pursuant to Commission Regulation (EU) 2017/000 [SO] are met, either by:
 - (a) the probabilistic calculation of cross-zonal capacity using the methodology pursuant to paragraph 6; or
 - (b) the allocation of cross-zonal capacity pursuant to Chapter 2 of Title IV.
5. Each TSO using the probabilistic calculation of cross-zonal capacity shall inform other TSOs in their load-frequency control block of the risk of unavailability of

reserve capacity in its control area or scheduling area that may affect the fulfilment of the requirements pursuant to Article 157(2)(b) of Commission Regulation (EU) 2017/000 [SO].

6. By two years after the entry into force of this Regulation, all TSOs shall develop a methodology for the probabilistic calculation of cross-zonal capacity. The methodology shall at least describe:
 - (a) the procedures to notify the use of probabilistic calculation of cross-zonal capacity to other TSOs in the load-frequency control block;
 - (b) the description of the process to perform the assessment for the relevant period for the exchange of balancing capacity or the sharing of reserves;
 - (c) the method to assess the risk of unavailability of cross-zonal capacity due to planned and unplanned outages and due to congestions;
 - (d) the method to assess the risk of insufficient reserve capacity due to unavailability of cross-zonal capacity;
 - (e) the requirements for a fall-back solution in case of unavailability of cross-zonal capacity or insufficient reserve capacity;
 - (f) the requirements for ex-post review and monitoring of risks;
 - (g) the rules in order to ensure the settlement pursuant to Title V.
7. TSOs shall not increase the reliability margin calculated pursuant to Commission Regulation (EU) 2015/1222 due to the exchange of balancing capacity or sharing of reserves.

Article 34

Transfer of balancing capacity

1. All TSOs shall allow balancing service providers to transfer balancing capacity to another balancing service provider.
2. All TSOs shall allow the transfer of balancing capacity within a control area or scheduling area at least until one hour before the start of the delivery day.
3. All TSOs shall allow the transfer of balancing capacity across control areas or scheduling areas at least until 24 hours before the start of the delivery day.
4. The transfer of balancing capacity shall be allowed if the following conditions are met:
 - (a) the receiving balancing service provider has passed the prequalification process for the balancing capacity for which the transfer is performed;
 - (b) the transfer of balancing capacity is not expected to endanger operational security;
 - (c) there is sufficient cross-zonal capacity available for the transfer of balancing capacity between balancing service providers from two different control areas or scheduling areas;
 - (d) the transfer of balancing capacity does not exceed the operational limits pursuant to the Chapter 1 and Chapter 2 of Part IV Title 8 of Commission Regulation (EU) 2017/000 [SO].

5. If a TSO does not allow the transfer of balancing capacity, the concerned TSO shall explain the reason for the rejection to the balancing service providers involved.

CHAPTER 3 **TSO-BSP MODEL**

Article 35

Exchange of balancing services in a form of TSO-BSP model

1. Two or more TSOs may at their initiative or at the request of their regulatory authorities develop a proposal for the application of the TSO-BSP model.
2. The proposal for application of a TSO-BSP model shall include:
 - (a) a cost-benefit analysis performed pursuant to Article 63 that identifies the efficiencies of applying the TSO-BSP model for at least the control area or scheduling area of the TSOs involved;
 - (b) the requested application period;
 - (c) a description of the methodology for ensuring sufficient cross-zonal capacity in accordance with Article 33(6).
3. In case of the TSO-BSP model is applicable, the respective TSOs and balancing service providers may be exempted from the application of the requirements in Article 17(2), Article 17(4), Article 17(5) and Article 29(9) for the relevant processes.
4. In case of the TSO-BSP model is applicable, the involved TSOs shall agree on the technical and contractual requirements and on information exchanges for the activation of balancing energy bids. The contracting TSO and the balancing service provider shall establish contractual arrangements based on the TSO-BSP model.
5. The TSO-BSP model for the exchange of balancing energy for frequency restoration reserves may be applied only in case the TSO-BSP model is also applied for the exchange of balancing capacity for frequency restoration reserves.
6. The TSO-BSP model for the exchange of balancing energy for replacement reserves may be applied in case the TSO-BSP model is applied for the exchange of balancing capacity for replacement reserves or in case one of the two involved TSOs does not operate the reserve replacement process as part of the load-frequency-control structure pursuant to Part IV of Commission Regulation (EU) 2017/000 [SO].
7. By four years after entry into force of this Regulation, all exchanges of balancing capacity shall be based on the TSO-TSO model. This requirement shall not apply to the TSO-BSP model for replacement reserves if one of the two involved TSOs does not operate the reserve replacement process as part of the load-frequency-control structure pursuant to Part IV of Commission Regulation (EU) 2017/000 [SO].

TITLE IV
CROSS-ZONAL CAPACITY FOR BALANCING SERVICES

CHAPTER 1
EXCHANGE OF BALANCING ENERGY OR IMBALANCE NETTING PROCESS

Article 36
Use of cross-zonal capacity

1. All TSOs shall use the available cross-zonal capacity after the intraday cross-zonal gate closure time for the exchange of balancing energy or for operating the imbalance netting process.
2. Two or more TSOs exchanging balancing capacity or sharing of reserves may use cross-zonal capacity for the exchange of balancing energy when cross-zonal capacity is:
 - (a) available pursuant to Article 33(6);
 - (b) released, pursuant to Article 39(7) and Article 39(8);
 - (c) allocated pursuant to Articles 41 to 43.

Article 37
Cross-zonal capacity calculation

1. By two years after entry into force of this Regulation, all TSOs shall develop a methodology for a specific cross-zonal capacity calculation for the exchange of balancing energy or for operating the imbalance netting process. Such methodology shall avoid market distortions and shall be consistent with the cross-zonal capacity calculation methodology applied in the intraday timeframe established under Commission Regulation (EU) 2015/1222.
2. All TSOs shall update the availability of cross-zonal capacity for the exchange of balancing energy or for operating the imbalance netting process.
3. All TSOs shall ensure that the available cross-zonal capacity is adjusted sufficiently in advance for the purpose of using cross-zonal capacity for the exchange of balancing energy.

Article 38
Cross-zonal capacity pricing

1. By two years after entry into force of this Regulation, all TSOs shall develop a methodology for a specific cross-zonal capacity pricing for the exchange of balancing energy or for operating the imbalance netting process. Such methodology shall be consistent with the requirements established under Commission Regulation (EU) 2015/1222, and:
 - (a) reflect market congestion;
 - (b) be based on actual balancing energy bids.
2. Cross-zonal capacity used for the exchange of balancing energy or for operating the imbalance netting process shall provide an adequate compensation and be priced consistently with the pricing method for the cross-zonal capacity in the intraday timeframe established under Commission Regulation (EU) 2015/1222.
3. TSOs shall 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 and if it is approved by the regulatory authorities as part of the proposals for the implementation frameworks for the European platforms pursuant to Articles 20 to 23.

CHAPTER 2

EXCHANGE OF BALANCING CAPACITY OR SHARING OF RESERVES

Article 39

General requirements

1. Two or more TSOs may allocate cross-zonal capacity for the exchange of balancing capacity or sharing of reserves, when supported by a cost-benefit analysis pursuant to Article 63, using one of the following processes:
 - (a) co-optimised allocation process pursuant to Article 41;
 - (b) market-based allocation process pursuant to Article 42;
 - (c) allocation process based on economic efficiency analysis pursuant to Article 43.
2. By two years after entry into force of this Regulation, all TSOs of a capacity calculation region shall harmonise the methodology for the allocation of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves. This methodology shall be based on either the co-optimised or the market-based allocation process pursuant to paragraph 1. In the case of DC interconnectors, the methodology may also be based on the allocation process based on an economic efficiency analysis.
3. Cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves shall be used exclusively for frequency restoration reserves with manual activation, for frequency restoration reserves with automatic activation or for replacement reserves. The reliability margin calculated pursuant to Commission Regulation (EU) 2015/1222 shall be used for operating and exchanging frequency containment reserves, except on Direct Current ('DC') interconnectors for which cross-zonal capacity for operating and exchanging frequency containment reserves may also be allocated in accordance with paragraph 1.
4. TSOs may allocate cross-zonal capacity for the exchange of balancing capacity or sharing of reserves only if cross-zonal capacity is calculated in accordance with the capacity calculation methodologies developed pursuant to Commission Regulation (EU) 2015/1222 and pursuant to Commission Regulation (EU) 2016/1719.
5. TSOs shall include cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves as already allocated cross-zonal capacity in the calculations of cross-zonal capacity.
6. If physical transmission right holders use cross-zonal capacity for the exchange of balancing capacity, it shall be considered as nominated solely for the purpose of excluding it from the application of the use-it-or-sell-it ('UIOSI') principle.
7. All TSOs exchanging balancing capacity or sharing of reserves shall regularly assess whether the cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves is still needed for that purpose. When cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves is no longer needed, it shall be released and returned in the subsequent capacity allocation timeframes. Such cross-zonal capacity shall no longer be included as already allocated cross-zonal capacity in the calculations of cross-zonal capacity.

8. When cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves has not been used for the associated exchange of balancing energy, it shall be released for the exchange of balancing energy with shorter activation times or for operating the imbalance netting process.

Article 40

Calculation of market value of cross-zonal capacity

1. The market value of cross-zonal capacity for the exchange of energy and for the exchange of balancing capacity or sharing of reserves used in a co-optimised or market-based allocation process shall be based on the actual or forecasted market values of cross-zonal capacity.
2. The actual market value of cross-zonal capacity for the exchange of energy shall be calculated based on the bids of market participants in the auctions for cross-zonal capacity for the exchange of energy.
3. The actual market value of cross-zonal capacity for the exchange of balancing capacity used in a co-optimised or a market-based allocation process shall be calculated based on balancing capacity bids submitted to the capacity procurement optimisation function pursuant to Article 33(3).
4. The actual market value of cross-zonal capacity for the sharing of reserves used in the co-optimised or the market-based process shall be calculated based on the avoided costs of procuring balancing capacity.
5. The market value of cross-zonal capacity shall be based on one of the following principles:
 - (a) the use of transparent market indicators that disclose the market value of cross-zonal capacity; or
 - (b) the use of a forecasting methodology enabling the accurate and reliable assessment of the market value of cross-zonal capacity.

Article 41

Co-optimised allocation process

1. By two years after entry into force of this Regulation, all TSOs shall develop a methodology for a co-optimised allocation process of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves. This methodology shall include:
 - (a) the notification process for the use of the co-optimised allocation process;
 - (b) a detailed description of how cross-zonal capacity shall be allocated to bids for the exchange of energy and bids for the exchange of balancing capacity or sharing of reserves in a single optimisation process performed for both implicit and explicit auctions;
 - (c) a detailed description of the pricing method, the firmness regime and the sharing of congestion income for the cross-zonal capacity that has been allocated to bids for the exchange of balancing capacity or sharing of reserves via the co-optimised allocation process;
 - (d) the process to define the maximum volume of allocated cross-zonal capacity for the exchange of balancing capacity or sharing of reserves.

2. The pricing method, the firmness regime and the sharing of congestion income for the cross-zonal capacity that has been allocated to bids for the exchange of balancing capacity or sharing of reserves via the co-optimised allocation process shall ensure equal treatment with the cross-zonal capacity allocated to bids for the exchange of energy.
3. TSOs shall bid to the co-optimised allocation process the actual market value of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves in a coordinated manner.
4. Cross-zonal capacity allocated to bids for the exchange of balancing capacity or sharing of reserves via the co-optimised allocation process shall be used only for the exchange of balancing capacity or sharing of reserves.

Article 42

Market-based allocation process

1. By two years after entry into force of this Regulation, all TSOs of a capacity calculation region may develop a methodology for a market-based allocation process of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves. This methodology shall include:
 - (a) the notification process for the use of the market-based allocation process;
 - (b) a detailed description of how to determine the actual market value of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves, and the forecasted market value of cross-zonal capacity for the exchange of energy;
 - (c) a detailed description of the pricing method, the firmness regime and the sharing of congestion income for the cross-zonal capacity that has been allocated to bids for the exchange of balancing capacity or sharing of reserves via the market-based allocation process;
 - (d) the process to define the maximum volume of allocated cross-zonal capacity for the exchange of balancing capacity or sharing of reserves.
2. This methodology shall be based on a comparison of the actual market value of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves and the forecasted market value of cross-zonal capacity for the exchange of energy.
3. The pricing method, the firmness regime and the sharing of congestion income for cross-zonal capacity that has been allocated for the exchange of balancing capacity or sharing of reserves via the market-based process shall ensure equal treatment with the cross-zonal capacity allocated for the exchange of energy.
4. Cross-zonal capacity allocated for the exchange of balancing capacity or sharing of reserves via the market-based allocation process shall be used only for the exchange of balancing capacity or sharing of reserves.

Article 43

Allocation process based on economic efficiency analysis

1. Two or more TSOs on both side of a bidding zone border including only DC interconnectors may develop a methodology for the allocation of cross-zonal capacity based on an economic efficiency analysis. Such methodology shall include:
 - (a) the rules and principles for allocating cross-zonal capacity based on an economic efficiency analysis;

- (b) a detailed description of how to determine the forecasted market value of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves, and the forecasted market value of cross-zonal capacity for the exchange of energy;
 - (c) a detailed description of the pricing method, firmness regime and the sharing of congestion income for the cross-zonal capacity that has been allocated based on an economic efficiency analysis;
 - (d) the maximum volume of allocated cross-zonal capacity for each bidding zone border where the allocation based on economic efficiency analysis will take place.
2. The methodology for the allocation of cross-zonal capacity based on an economic efficiency analysis shall be based on a comparison of the forecasted market value of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves, and the forecasted market value of cross-zonal capacity for the exchange of energy.
 3. The pricing method, the firmness regime and the sharing of congestion income for the cross-zonal capacity that has been allocated for the exchange of balancing capacity or sharing of reserves based on an economic efficiency analysis shall ensure equal treatment with the cross-zonal capacity allocated for the exchange of energy.
 4. TSOs in paragraph 1 shall develop a list for each individual allocation of cross-zonal capacity based on an economic efficiency analysis. Such list shall include:
 - (a) the specification of the bidding zone border;
 - (b) the volume of allocated cross-zonal capacity;
 - (c) the time period during which the cross-zonal capacity would be allocated for the exchange of balancing capacity or sharing of reserves;
 - (d) the economic analysis justifying the efficiency of such allocation.
 5. TSOs in paragraph 1 shall reassess the value of the allocated cross-zonal capacity in the process of the procurement of balancing capacity and release the allocated cross-zonal capacity which is no longer beneficial for the exchange of balancing capacity or sharing of reserves.

Article 44

Use of cross-zonal capacity by balancing service providers

1. Balancing service providers having a contract for balancing capacity with a TSO on the basis of a TSO-BSP model pursuant to Article 35 shall have the right to use cross-zonal capacity for the exchange of balancing capacity if they are the holders of physical transmission rights.
2. Balancing service providers using cross-zonal capacity for the exchange of balancing capacity on the basis of a TSO-BSP model pursuant to Article 35 shall nominate their physical transmission rights for the exchange of balancing capacity to the concerned TSOs. Such physical transmission rights shall provide the right to their holders to nominate the exchange of balancing energy to the concerned TSOs and shall therefore be excluded from the application of the UIOSI principle.
3. Cross-zonal capacity allocated for the exchange of balancing capacity in accordance with paragraph 2 shall be included as already allocated cross-zonal capacity in the calculations of cross-zonal capacity.

TITLE V
SETTLEMENT
CHAPTER 1
SETTLEMENT PRINCIPLES

Article 45
General principles

1. The settlement process shall:
 - (a) establish adequate economic signals which reflect the imbalance situation;
 - (b) ensure that imbalances are settled at a price that reflects the real time value of energy;
 - (c) provide incentives to balance responsible parties to be in balance or help the system to restore its balance;
 - (d) facilitate harmonisation of imbalance settlement mechanisms;
 - (e) provide incentives to TSOs to fulfil their obligations pursuant to Article 127, Article 153, Article 157 and Article 160 of Commission Regulation (EU) 2017/000 [SO];
 - (f) avoid distorting incentives to balance responsible parties, balancing service providers and TSOs;
 - (g) support competition among market participants;
 - (h) provide incentives to balancing service providers to offer and deliver balancing services to the connecting TSO;
 - (i) ensure the financial neutrality of all TSOs.
2. Each regulatory authority shall ensure that all TSOs under its competence do not incur economic gains or losses with regard to the financial outcome of the settlement pursuant to Chapters 2 to 4 of this Title, over the regulatory period as defined by the regulatory authority.
3. By eighteen months after entry into force of this Regulation, all TSOs shall develop a methodology for triggering shortage pricing for any imbalance settlement period where TSOs are short of resources to balance their system. Such methodology shall ensure compliance with the requirement set out in paragraph 1(b). TSOs shall not be allowed to use the financial outcome as a result of the settlement pursuant to Chapters 2 to 4 of this Title to cover the cost of any congestion.

CHAPTER 2
SETTLEMENT OF BALANCING ENERGY

Article 46
Balancing energy calculation

1. Concerning the settlement of balancing energy and for at least the frequency restoration process and the reserve replacement process, each TSO shall establish a procedure for:
 - (a) the calculation of the activated volume of balancing energy based on requested or metered activation;
 - (b) claiming the recalculation of the activated volume of balancing energy.

2. Each TSO shall calculate the activated volume of balancing energy according to the procedures pursuant to paragraph 1(a) at least:
 - (a) for each imbalance settlement period;
 - (b) for each imbalance area;
 - (c) for each direction, with a negative sign indicating relative withdrawal by the balancing service provider, and a positive sign indicating relative injection by the balancing service provider.
3. Each TSO shall settle the activated volume of balancing energy, calculated pursuant to paragraph 2, with the balancing service provider.

Article 47

Balancing energy price

1. By one year after the entry into force of this Regulation, all TSOs shall develop a proposal for a pricing method applicable to activated balancing energy for frequency restoration reserves and replacement reserves. Such pricing method shall:
 - (a) be based on marginal pricing (pay-as-cleared);
 - (b) establish at least one price of balancing energy for each imbalance settlement period;
 - (c) give correct price signals and incentives to market participants;
 - (d) take into account the pricing method in the day-ahead and intraday timeframes.
2. Balancing energy prices, including bidding and clearing prices, shall not be floored or capped below the value of lost load.
3. The harmonised pricing method shall apply to balancing energy from all standard and specific products for balancing energy pursuant to Article 26(3)(a). For specific products pursuant to Article 26(3)(b), the concerned TSO may propose a different pricing method in the proposal for specific products pursuant to Article 26.

Article 48

Balancing energy for frequency containment process

1. Each connecting TSO shall have the right to calculate and to settle the activated volume of balancing energy for the frequency containment process with balancing service providers pursuant to Article 46(1) and Article 46(2).
2. The price, be it positive, zero or negative, of the activated volume of balancing energy for the frequency containment process shall be defined for each direction, and is to be received by the balancing service provider from the TSO, in case of balancing energy with a positive sign, and is to be paid by the balancing service provider to the TSO, in case of balancing energy with a negative sign.

Article 49

Balancing energy for frequency restoration process

1. Each connecting TSO shall calculate and settle the activated volume of balancing energy for the frequency restoration process with balancing service providers pursuant to Article 46(1) and Article 46(2).
2. The price, be it positive, zero or negative, of the activated volume of balancing energy for the frequency restoration process shall be defined for each direction pursuant to Article 47 and is to be received by the balancing service provider from

the TSO, in case of balancing energy with a positive sign, and is to be paid by the balancing service provider to the TSO, in case of balancing energy with a negative sign.

Article 50

Balancing energy for reserve replacement process

1. Each connecting TSO shall calculate and settle the activated volume of balancing energy for the reserve replacement process with balancing service providers pursuant to Article 46(1) and Article 46(2).
2. The price, be it positive, zero or negative, of the activated volume of balancing energy for reserve replacement process shall be defined for each direction pursuant to Article 47 and is to be received by the balancing service provider from the TSO, in case of balancing energy with a positive sign, and is to be paid by the balancing service provider to the TSO, in case of balancing energy with a negative sign.

Article 51

Imbalance adjustment to the balance responsible party

1. Each TSO shall calculate an imbalance adjustment to be applied to the concerned balance responsible parties for each activated balancing energy bid.
2. For imbalance areas where several finalised positions for a single balance responsible party are calculated pursuant to Article 56(3), an imbalance adjustment may be calculated per notified position.
3. For each imbalance adjustment, each TSO shall determine the activated volume of balancing energy calculated pursuant Article 46(2) and the activation purpose if other than balancing.

CHAPTER 3

SETTLEMENT OF THE EXCHANGES OF ENERGY BETWEEN TSOS

Article 52

Intended exchanges of energy

1. By one year after the entry into force of this Regulation, all TSOs shall develop a proposal for common settlement rules applicable to all intended exchanges of energy as a result of one or more of the following processes:
 - (a) the reserve replacement process;
 - (b) the frequency restoration process with manual activation;
 - (c) the frequency restoration process with automatic activation;
 - (d) the imbalance netting process.
2. Each TSO-TSO settlement function shall perform the settlement.
3. By eighteen months after the entry into force of this Regulation, all TSOs intentionally exchanging energy within a synchronous area shall develop a proposal for common settlement rules applicable to intended exchanges of energy, as a result of one or both:
 - (a) the frequency containment process;
 - (b) the ramping period.

4. By eighteen months after the entry into force of this Regulation, all asynchronously connected TSOs intentionally exchanging energy between synchronous areas shall develop a proposal for common settlement rules applicable to intended exchanges of energy, as a result of one or both:
 - (a) the frequency containment process for active power output on synchronous area level;
 - (b) the ramping restrictions for active power output on synchronous area level.
5. The common settlement rules in accordance with paragraph 1 shall at least contain the provisions that the intended exchange of energy is calculated on the basis of the following criteria:
 - (a) over time periods agreed between relevant TSOs;
 - (b) per direction;
 - (c) as the integral of the calculated power interchange over the time periods pursuant to paragraph 5(a).
6. The proposals for common settlement rules of intended exchanges of energy between TSOs shall ensure a fair and equal distribution of costs and benefits between TSOs.
7. All TSOs shall establish a coordinated mechanism for adjustments to settlements between all TSOs.

Article 53

Unintended exchanges of energy

1. By eighteen months after the entry into force of this Regulation, all TSOs shall develop a proposal for common settlement rules applicable to all unintended exchanges of energy within a synchronous area. The proposal shall include the following requirements:
 - (a) the price for unintended exchanges of energy withdrawn from the synchronous area shall reflect the prices for activated upward balancing energy for frequency restoration process or reserve replacement process for this synchronous area;
 - (b) the price for unintended exchanges of energy injected into the synchronous area shall reflect the prices for activated downward balancing energy for frequency restoration process or reserve replacement process for this synchronous area.
2. By eighteen months after the entry into force of this Regulation, all asynchronously connected TSOs shall develop a proposal for common settlement rules applicable to all unintended exchanges of energy between asynchronously connected TSOs.
3. The proposals of common settlement rules of unintended exchanges of energy between TSOs shall ensure a fair and equal distribution of costs and benefits between TSOs.
4. All TSOs shall establish a coordinated mechanism for adjustments to settlements between all TSOs.

CHAPTER 4

IMBALANCE SETTLEMENT

Article 54

Imbalance settlement

1. Each TSO shall settle with each balance responsible party for each imbalance settlement period pursuant to Article 55 all calculated imbalances pursuant to Article 56 against the appropriate imbalance price pursuant to Article 57.
2. By one year after entry into force of this Regulation, all TSOs shall develop a proposal to harmonise the main features of imbalance settlement. Such proposal shall harmonise:
 - (a) the calculation of an imbalance adjustment pursuant to Article 51 and the calculation of a position, an imbalance and an allocated volume pursuant to Article 56;
 - (b) the calculation of the imbalance price for all imbalances pursuant to Article 57 including the definition of the value of avoided activation of balancing energy from frequency restoration reserves or replacement reserves;
 - (c) the definition of imbalance price area equal to a bidding zone in case of self-dispatching model;
 - (d) the use of single pricing for all imbalances and clear criteria and justifications for the application of dual pricing as an occasional measure.
3. Harmonisation pursuant to paragraph 2 may distinguish between self-dispatching model and central dispatching model.
4. The proposal pursuant to paragraph 2 shall provide an implementation date no later than eighteen months after approval by all regulatory authorities in accordance with Article 5(2).

Article 55

Imbalance settlement period

1. By three years after entry into force of this Regulation, all TSOs shall apply imbalance settlement periods of 15 minutes in all control areas while ensuring that all boundaries of market time unit shall coincide with boundaries of imbalance settlement periods.
2. The TSOs of a synchronous area may jointly request an exemption from the requirement in paragraph 1. The regulatory authority shall issue a reasoned decision concerning the request for the exemption in accordance with Article 5(3).
3. Where the regulatory authorities of a synchronous area grant an exemption from the requirement in paragraph 1 and upon a joint request of the TSOs in the concerned synchronous area or at their own initiative, they shall perform, in cooperation with the Agency and at least every three years, a cost-benefit analysis concerning the harmonisation of the imbalance settlement periods within and between synchronous areas.

Article 56

Imbalance calculation

1. Each TSO shall calculate for each balance responsible party the final position, the allocated volume, the imbalance adjustment and the imbalance:

- (a) for each imbalance settlement period;
 - (b) in each imbalance area.
2. The imbalance area shall be equal to the scheduling area, except in case of a central dispatching model where imbalance area may constitute a part of scheduling area.
 3. Each TSO shall calculate the final position of a balance responsible party using one of the following approaches:
 - (a) balance responsible party has one single final position equal to the sum of its external commercial trade schedules and internal commercial trade schedules;
 - (b) balance responsible party has two final positions; the first being equal to the sum of its external commercial trade schedules and internal commercial trade schedules from generation and, the second being equal to the sum external commercial trade schedules and internal commercial trade schedules from consumption;
 - (c) in a central dispatching model, a balance responsible party can have several final positions per imbalance area equal to generation schedules of power generating facilities or consumption schedules of demand facilities.
 4. Each TSO shall develop the rules for:
 - (a) the calculation of the final position;
 - (b) the determination of the allocated volume of all injections and withdrawals;
 - (c) the determination of the imbalance adjustment and the activation or curtailment purpose if other than balancing pursuant to Article 51;
 - (d) the calculation of the imbalance;
 - (e) claiming the recalculation of the imbalance by a balance responsible party.
 5. Allocated volume shall not be calculated for a balance responsible party which does not cover injections or withdrawals.
 6. An imbalance shall indicate the size and the direction of the settlement transaction between the balance responsible party and the TSO; with:
 - (a) negative indicating a balance responsible party's shortage;
 - (b) positive indicating a balance responsible party's surplus.

Article 57
Imbalance price

1. Each TSO shall develop rules to calculate the imbalance price, be it positive, zero or negative, to be paid by the balance responsible party to the TSO, in case of an imbalance with a negative sign, or received by the balance responsible party from the TSO, in case of an imbalance with a positive sign. The rules shall include a definition of the value of avoided activation of balancing energy from frequency restoration reserves or replacement reserves.
2. Each TSO shall determine the imbalance price:
 - (a) for each imbalance settlement period;
 - (b) for each imbalance price area;
 - (c) for each imbalance direction.

3. The imbalance price for shortage shall not be less than:
 - (a) the weighted average price for positive activated balancing energy for frequency restoration reserves and replacement reserves; or
 - (b) in the event that no activation of balancing energy in either direction has occurred during the imbalance settlement period, the value of the avoided activation of balancing energy for frequency restoration reserves or replacement reserves.
4. The imbalance price for surplus shall not be greater than:
 - (a) the weighted average price for negative activated balancing energy for frequency restoration reserves and replacement reserves; or
 - (b) in the event that no activation of balancing energy in either direction has occurred during the imbalance settlement period, the value of the avoided activation of balancing energy for frequency restoration reserves or replacement reserves.
5. In the event that both positive and negative balancing energy for frequency restoration reserves or replacement reserves have been activated during the same imbalance settlement period, the imbalance settlement price shall be determined for shortage and surplus based on at least one of the principles pursuant to paragraphs 3 and 4.

CHAPTER 5 SETTLEMENT OF BALANCING CAPACITY

Article 58

Procurement within a control area

1. Each TSO of a control area using balancing capacity bids shall establish rules for the settlement of at least frequency restoration reserves and replacement reserves pursuant to the requirements in Article 32.
2. Each TSO of a control area using balancing capacity bids shall settle at least all procured frequency restoration reserves and replacement reserves pursuant to the requirements in Article 32.

Article 59

Procurement outside a control area

1. All TSOs exchanging balancing capacity shall establish rules for the settlement of procured balancing capacity pursuant to Article 33 and Article 35.
2. All TSOs exchanging balancing capacity shall jointly settle procured balancing capacity using the TSO-TSO settlement function pursuant to Article 33. TSOs exchanging balancing capacity based on a TSO-BSP model shall settle procured balancing capacity pursuant to Article 35,
3. All TSOs exchanging balancing capacity shall establish rules for the settlement of allocation of cross-zonal capacity pursuant to Chapter 2 of Title IV.
4. All TSOs exchanging balancing capacity shall settle the allocated cross-zonal capacity pursuant to Chapter 2 of Title IV.

TITLE VI ALGORITHM

Article 60 Balancing algorithms

1. In the proposals pursuant to Articles 20 to 22, all TSOs shall develop algorithms to be operated by the activation optimisation functions for the activation of balancing energy bids. Those algorithms shall:
 - (a) respect the activation method of balancing energy bids pursuant to Article 29;
 - (b) respect the pricing method for balancing energy pursuant to Article 47;
 - (c) take into account the process descriptions for imbalance netting and cross-border activation pursuant to Part IV Title 3 of Commission Regulation (EU) 2017/000 [SO].
2. In the proposal pursuant to Article 23, all TSOs performing the automatic frequency restoration process pursuant to Part IV of Commission Regulation (EU) 2017/000 [SO] shall develop an algorithm to be operated by the imbalance netting process function. This algorithm shall minimise, when cost effective, the counter activation of balancing resources by performing the imbalance netting process pursuant to Part IV of Commission Regulation (EU) 2017/000 [SO].
3. In the proposal pursuant to Article 33, two or more TSOs exchanging balancing capacity shall develop algorithms to be operated by the capacity procurement optimisation functions for the procurement of balancing capacity bids. Those algorithms shall:
 - (a) minimise the overall procurement costs of all jointly procured balancing capacity;
 - (b) take into account the availability of cross-zonal capacity including possible costs for its provision.
4. In accordance with Article 34, all TSOs shall develop an algorithm to be operated by the transfer of balancing capacity function. This algorithm shall allow a balancing service provider to transfer its balancing capacity obligation to another balancing service provider.
5. All algorithms as described in this Article shall:
 - (a) respect operational security constraints;
 - (b) take into account technical and network constraints;
 - (c) if applicable, take into account the available cross-zonal capacity.

TITLE VII REPORTING

Article 61 European report on integration of balancing markets

1. ENTSO-E shall publish a European report focusing on monitoring, describing and analysing the implementation of this Regulation, as well as reporting on the progress made concerning the integration of balancing markets in Europe.
2. The format of the report shall vary as follow:

- (a) two years after entry into force of this Regulation and subsequently every second year a detailed report shall be published;
 - (b) three years after entry into force of this Regulation and subsequently every second year a shorter version of the report shall be published to review the progress made and update the performance indicators.
3. The report pursuant to paragraph 2(a) shall:
- (a) describe and analyse the harmonisation and integration process as well as the progress made in terms of harmonisation and integration of balancing markets through the application of this Regulation;
 - (b) describe the status of implementation projects pursuant to this Regulation;
 - (c) assess the compatibility between the implementation projects and investigate any possible developments that pose a risk for future integration;
 - (d) analyse the development of the exchanges of balancing capacity and the sharing of reserves and describe possible barriers, prerequisites and actions to further enhance the exchange of balancing capacity and the sharing of reserves;
 - (e) describe the existing and analyse the potential exchanges of balancing services;
 - (f) analyse the suitability of standard products with respect to the latest development and evolution of different balancing resources and propose possible improvements of standard products;
 - (g) assess the need for further harmonisation of standard products and possible effects of non-harmonisation on integration of balancing markets;
 - (h) assess the existence and justifications for specific products used by TSOs and their effect on the integration of balancing markets;
 - (i) assess the progress of harmonisation of the main features of imbalance settlement as well as the consequences and possible distortions due to non-harmonisation;
 - (j) report the results of the cost-benefit analyses pursuant to Article 63.
4. ENTSO-E shall develop performance indicators for balancing markets that will be used in the reports. These performance indicators shall reflect:
- (a) the availability of balancing energy bids, including the bids from balancing capacity;
 - (b) the monetary gains and savings due to imbalance netting, exchange of balancing services and sharing of reserves;
 - (c) the benefits from the use of standard products;
 - (d) the total cost of balancing;
 - (e) the economic efficiency and reliability of the balancing markets;
 - (f) the possible inefficiencies and distortions on balancing markets;
 - (g) the efficiency losses due to specific products and unshared bids;
 - (h) the volume and price of balancing energy used for balancing purposes, both available and activated, from standard products and from specific products;
 - (i) the imbalance prices and the system imbalances;
 - (j) the evolution of balancing service prices of the previous years;

- (k) the comparison of expected and realised costs and benefits from all allocations of cross-zonal capacity for balancing purposes.
5. ENTSO-E shall develop the proposal for the structure of the reports. This proposal shall also define the content and performance indicators that will be used in the report. For each report, the proposal shall be delivered to the Agency which shall be entitled to require amendments within two months after the submission of the proposal.
 6. The report pursuant to paragraph 2(a) shall also contain an executive summary in English of each TSO report on balancing pursuant to Article 62.
 7. The reports shall provide disaggregated information and indicators for each control area or scheduling area, each bidding zone border, or each load-frequency control block.
 8. ENTSO-E shall publish the reports on Internet and submit it to the Agency no later than six months after the end of the year it refers to.
 9. After the deadlines by which all TSOs shall use the European platforms pursuant to Article 20(5), Article 21(6), Article 22(6) and Article 23(5), all TSOs shall review the content and conditions of publication of the reports. Based on the outcome of that review, ENTSO-E shall develop a proposal for a new structure and timing for the publication of the reports and submit it to the Agency. The Agency shall be entitled to require amendments within three months after the submission of the proposal.

Article 62

TSO report on balancing

1. At least once every two years, each TSO shall publish a report on balancing covering the previous two calendar years.
2. The report on balancing shall:
 - (a) include information concerning the volumes of available, procured and used specific products, as well as justification of specific products subject to conditions pursuant to Article 26;
 - (b) provide the summary analysis of the dimensioning of reserve capacity including the justification and explanation for the calculated reserve capacity requirements;
 - (c) provide the summary analysis of the optimal provision of reserve capacity including the justification of the volume of balancing capacity;
 - (d) analyse the costs and benefits, and the possible inefficiencies and distortions of having specific products in terms of competition and market fragmentation, participation of demand response and renewable energy sources, integration of balancing markets and side-effects on other electricity markets;
 - (e) analyse the opportunities for the exchange of balancing capacity and sharing of reserves;
 - (f) provide an explanation and a justification for the procurement of balancing capacity without the exchange of balancing capacity or sharing of reserves;
 - (g) analyse the efficiency of the activation optimisation functions for the balancing energy from frequency restoration reserves and, if applicable, for the balancing energy from replacement reserves;

- (h) list all events where the TSOs did not use the activation optimisation functions for balancing including a detailed justification.
- 3. The report on balancing shall either be in English or at least contain an executive summary in English.
- 4. Based on previously published reports, the regulatory authority shall be entitled to require changes to the structure and content of the next TSO report on balancing.

TITLE VIII COST-BENEFIT ANALYSIS

Article 63

Cost-benefit analysis

- 1. When TSOs are required to carry out a cost-benefit analysis pursuant to this Regulation, they shall develop the criteria and methodology for the cost-benefit analysis and submit them to concerned regulatory authorities by six months before the start of the cost-benefit analysis. The concerned regulatory authorities shall be entitled to jointly require amendments to the criteria and methodology.
- 2. The cost-benefit analysis shall at least take into account:
 - (a) the technical feasibility;
 - (b) the economic efficiency;
 - (c) the impact on competition and integration of balancing markets;
 - (d) the costs and benefits of implementation;
 - (e) the impact on European, regional and national balancing costs;
 - (f) the potential impact on regional electricity market prices;
 - (g) the ability of TSOs and balancing responsible parties to fulfil their obligations;
 - (h) the impact on market parties in terms of additional technical or IT requirements assessed in cooperation with the affected stakeholders.
- 3. All concerned TSOs shall provide the results of the cost-benefit analysis to all concerned regulatory authorities, together with a justified proposal on how to address possible issues identified by the cost-benefit analysis.

TITLE IX DEROGATIONS AND MONITORING

Article 64

Derogations

- 1. TSOs may request a derogation from the following requirements:
 - (a) the deadlines by which all TSOs shall use the European platforms pursuant to Article 20(5), Article 21(6), Article 22(6) and Article 23(5);
 - (b) the definition of the integrated scheduling process gate closure time in a central dispatching model pursuant to Article 24(5) and the possibility to change the integrated scheduling process bids pursuant to Article 24(6);
 - (c) the implementation of the requirements pursuant to Article 46, Articles 48 to 53 and Articles 56 to 59.

2. The derogation process shall be transparent, non-discriminatory, non-biased, well documented and based on a reasoned request.
3. TSOs shall file a written request for derogation to the competent regulatory authority at the latest six months prior to the day of application of the provisions from which the derogation is requested.
4. The request for derogation shall include the following information:
 - (a) the provisions for which derogation is requested;
 - (b) the requested derogation period;
 - (c) a detailed plan and timeline specifying how to address and ensure the implementation of the concerned provisions of this Regulation after expiration of the derogation period;
 - (d) an assessment of the consequences of requested derogation on adjacent markets;
 - (e) an assessment of the possible risks for the integration of balancing markets across Europe caused by the requested derogation.
5. The regulatory authority shall adopt a decision concerning any request for derogation within six months from the day after it receives the request. That time limit may be extended by three months before its expiry where the regulatory authority requires further information from the TSO requesting the derogation. The additional period shall begin when the complete information has been received.
6. The TSO requesting the derogation shall submit any additional information requested by the regulatory authority within two months of such request. If the TSO does not supply the requested information within that time limit, the request for a derogation shall be deemed withdrawn unless, before its expiry:
 - (a) the regulatory authority decides to provide an extension; or
 - (b) the TSO informs the regulatory authority by means of a reasoned submission that the request for a derogation is complete.
7. In assessing the request for derogation, the regulatory authority shall consider the following aspects:
 - (a) the difficulties related to the implementation of the concerned provision or provisions;
 - (b) the risks and the implications of the concerned provision or provisions, in terms of operational security;
 - (c) the actions taken to facilitate the implementation of the concerned provision or provisions;
 - (d) the impacts of non-implementation of the concerned provision or provisions, in terms of non-discrimination and competition with other European market participants, in particular as regards demand response and renewable energy sources;
 - (e) the impacts on overall economic efficiency;
 - (f) the impacts on other control areas and overall consequences on the European market integration process.

8. The regulatory authority shall issue a reasoned decision concerning a request for a derogation. Where the regulatory authority grants a derogation, it shall specify its duration. The regulatory authorities shall grant a derogation only once and for a maximum period of two years.
9. The regulatory authorities shall notify its decision to the TSO, the Agency and the European Commission. The decision shall also be published on its website.
10. Regulatory authorities shall maintain a register of all derogations they have granted or refused and shall provide the Agency with an updated and consolidated register at least once every six months, a copy of which shall be given to ENTSO-E.
11. The register shall contain, in particular:
 - (a) the requirement or requirements for which the derogation is granted or refused;
 - (b) the content of the derogation;
 - (c) the reasons for granting or refusing the derogation;
 - (d) the consequences resulting from granting the derogation.

Article 65
Monitoring

1. ENTSO-E shall monitor the implementation of this Regulation in accordance with Article 8(8) of Regulation (EC) No 714/2009. Monitoring of the implementation of this Regulation by ENTSO-E shall cover at least the following matters:
 - (a) preparing the European report on integration of balancing market pursuant to Article 61;
 - (b) preparing a report on monitoring of the implementation of this Regulation including its effect on the harmonisation of applicable rules aimed at facilitating market integration.
2. ENTSO-E shall submit a monitoring plan which includes the reports to be prepared and any updates, to the Agency for an opinion by six months after entry into force of this Regulation.
3. The Agency, in cooperation with ENTSO-E, shall draw up by twelve months after the entry into force of this Regulation a list of the relevant information to be communicated by ENTSO-E to the Agency in accordance with Article 8(9) and Article 9(1) of Regulation (EC) No 714/2009. The list of relevant information may be subject to updates. ENTSO-E shall maintain a comprehensive, standardised format, digital data archive of the information required by the Agency.
4. All TSOs shall submit to ENTSO-E the information required to perform the tasks in accordance with paragraphs 1 and 3.
5. Market participants and other relevant organisations for the integration of electricity balancing markets shall, at the joint request of the Agency and ENTSO-E, submit to ENTSO-E the information required for monitoring in accordance with paragraphs 1 and 3, except for information already obtained by the regulatory authorities, the Agency or ENTSO-E in the context of their respective implementation monitoring tasks.

TITLE X
TRANSITIONAL AND FINAL PROVISIONS

Article 66
Transition period

1. Without prejudice to Articles 16, 20 to 25, 29, 33, 35, 37 to 39, 41 to 42, 45, 47, 52 to 55, and Titles VII to IX, the requirements of this Regulation shall apply from one year after publication.
2. During the transition period, the requirements of this Regulation shall not apply to agreements related to electricity balancing concluded between TSOs or between a TSO and a concerned grid user being in force at the date of the entry into force of this Regulation. After the end of the transition period, the requirements of this Regulation shall also apply to agreements related to electricity balancing concluded between TSOs or between a TSO and a concerned grid user being in force at the date of the entry into force of this Regulation as well as to those concluded during the transition period.

Article 67
Entry into force

1. This Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.
2. This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the Commission
The President