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**All asynchronously connected TSOs' proposal for  
Common settlement rules for intended exchanges  
of energy between synchronous areas as a result  
of the frequency containment process and of  
ramping restrictions in accordance with the  
Article 50(4) of Commission Regulation (EU)  
2017/2195 of 23 November 2017 establishing a  
guideline on electricity balancing**

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**ALL ASYNCHRONOUSLY CONNECTED TSOS, TAKING INTO ACCOUNT THE FOLLOWING:**

**Whereas**

- (1) This document is a common proposal developed by all asynchronously connected TSOs regarding the development of common settlement rules applicable to intended exchanges of energy between asynchronously connected TSOs in accordance with Article 50(4) of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (hereafter referred to as “**EB Regulation**”). This proposal is hereafter referred to as “**these settlement rules**”.
- (2) These settlement rules take into account the general principles and objectives set in the EB Regulation as well as 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 (hereafter referred to as “**Electricity Regulation**”) as well as Regulation (EC) No 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereafter referred to as “**SO Regulation**”).
- (3) These settlement rules take into account the general principles adherent to settlement processes in accordance to Article 44 of the EB Regulation that require that the settlement processes shall inter alia:
  - a. *Provide incentives to TSOs to fulfil their obligations pursuant to Article 127, Article 153, Article 157 and Article 160 of the SO Regulation;*
  - b. *Avoid distorting incentives to BRPs, BSPs and TSOs;*
  - c. *Ensure the financial neutrality of all TSOs.*
- (4) Articles 50(4) and 50(8) of the EB Regulation define the deadline for the submission of these settlement rules to the relevant regulatory authorities and several specific requirements to its content:
  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) *frequency containment process for active power output on synchronous area level pursuant to Articles 172 and 173 of Regulation (EU) 2017/1485;*
    - (b) *ramping restrictions for active power output on synchronous area level pursuant to Article 137 of Regulation (EU) 2017/1485.*
  8. *All TSOs shall establish a coordinated mechanism for adjustments to settlements between all TSOs.*
- (5) These settlement rules contribute to the objective of proportionality and non-discrimination pursuant to Articles 3(2)(a) of the EB Regulation, since these settlement rules will apply to all asynchronously connected TSOs.
- (6) These settlement rules contribute to the objective of transparency pursuant to Article 3(2)(b) of the EB Regulation, since these settlement rules will be publicly available.

- (7) These settlement rules were developed taking into account the consistency with the settlement rules of intended exchanges of energy within a synchronous area in accordance with Article 50(3) of the EB Regulation and of unintended exchanges of energy within a synchronous area in accordance with Article 51(1) of the EB Regulation.
- (8) In conclusion, these settlement rules contribute to the general objectives of the EB Regulation.

### **Abbreviations**

The list of abbreviations used in these settlement rules is the following:

- ACER: Agency for the Cooperation of Energy Regulators
- EB Regulation: Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing
- Electricity Regulation: 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
- LFC area: load-frequency control area
- LFC block: load-frequency control block
- SO Regulation: Regulation (EC) No 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation
- TSO: Transmission System Operator

**SUBMIT THE FOLLOWING SETTLEMENT RULES TO ALL RELEVANT REGULATORY AUTHORITIES:**



## Article 1 Subject matter and scope

- (1) The common settlement rules for intended exchanges of energy as determined in these settlement rules are the common proposal of all asynchronously connected TSOs in accordance with Article 50(4) of the EB Regulation.
- (2) These settlement rules shall apply to all asynchronously connected TSOs exchanging energy in accordance with the relevant annex of these settlement rules.
- (3) The following settlement rules are out of scope of these settlement rules:
  - (a) the common settlement rules for all intended exchanges of energy in accordance with Article 50(1) of the EB Regulation;
  - (b) the common settlement rules for all intended exchanges of energy in accordance with Article 50(3) of the EB Regulation;
  - (c) the common settlement rules for unintended exchanges of energy within a synchronous area in accordance with Article 51(1) of the EB Regulation.
  - (d) the common settlement rules for unintended exchanges of energy between synchronous areas in accordance with Article 51(2) of the EB Regulation.

## Article 2 Definitions and interpretation

- (1) For the purposes of these settlement rules, the terms used shall have the definitions given to them in Article 2 of the EB Regulation and Article 3 of the SO Regulation.
- (2) In addition, in these settlement rules the following terms shall apply:
  - (a) 'all asynchronously connected TSOs' refers to the TSOs submitting this proposal;
  - (b) 'the relevant asynchronously connected TSOs' refers to the TSOs exchanging energy in accordance with the relevant annexes of these settlement rules;
  - (c) 'accounting data' are data agreed between two TSOs concerning the physical energy exchanged over a physical line or considered via a virtual tie-line if applicable;
  - (d) 'TSO-TSO settlement period' means, in the context of these settlement rules, the time unit for which intended exchanges of energy as a result of the frequency containment process and ramping restrictions are calculated.
- (3) Settlement according to these settlement rules follow the sign convention in Table 1:

**Table 1 Payment for TSO-TSO settlement pursuant to these settlement rules**

	TSO-TSO settlement price: positive	TSO-TSO settlement price: negative
TSO settlement volume: positive (TSO exports)	Payment to TSO	Payment from TSO
TSO settlement volume: negative (TSO imports)	Payment from TSO	Payment to TSO

- (4) In these settlement rules, unless the context requires otherwise, prices for intended exchanges of energy are indicated in EUR/MWh;
- (5) In addition, unless the context requires otherwise:
  - (a) the singular indicates the plural and vice versa;
  - (b) the table of contents and headings are inserted for convenience only and do not affect the interpretation of these settlement rules;
  - (c) any reference to legislation, regulations, directive, order, instrument, code or any other enactment shall include any modification, extension or re-enactment of it then in force.

### **Article 3**

#### **High-level design of the common settlement rules**

- (1) The relevant asynchronously connected TSOs shall jointly foresee the accounting, settlement and invoicing in accordance with these settlement rules.
- (2) For each TSO-TSO settlement period in accordance with Article 4 of these settlement rules, the volumes of intended exchanges of energy calculated in accordance with Article 5 of these settlement rules shall be settled at the price calculated for that TSO-TSO settlement period in accordance with Article 6 of these settlement rules.
- (3) All relevant asynchronously connected TSOs shall accept the financial flows and are obliged to pay, or receive payments, accordingly.
- (4) After implementation of these common settlement rules, a reviewal mechanism shall start by end of 2022, in which all asynchronously connected TSOs will review these settlement rules. A review shall take place at least every three years after the first review. In the reviewal mechanism, the possibility for evolving to a harmonised price calculation method for all relevant asynchronously connected TSOs shall be evaluated. In addition, the reviewal mechanism could affect, for example, technical details such as data collection. Any changes to these settlement rules shall be submitted to the relevant regulatory authorities for approval.

### **Article 4**

#### **Settlement period**

- (1) The TSO-TSO settlement period shall be set at 15 minutes, unless the relevant asynchronously connected TSOs jointly decide otherwise. The reviewal according to Article 3(4) shall harmonise the TSO-TSO settlement period.
- (2) The TSO-TSO settlement period of each day shall begin right after 00:00 of the time zone agreed by the relevant asynchronously connected TSOs. The TSO-TSO settlement periods shall be consecutive and not overlapping.

### **Article 5**

#### **Volume determination per TSO-TSO settlement period**

- (1) The volume of intended exchanges of energy as the result of the frequency containment process for active power output on synchronous area level pursuant to Articles 172 and 173 of the SO Regulation according to Article 50(4)(a) of the EB Regulation between the relevant asynchronously connected TSOs is



calculated according to the relevant annex per TSO-TSO settlement period, in accordance with Article 4 of these settlement rules.

- (2) The volume of intended exchange of energy as the result of ramping restrictions for active power output pursuant to Article 137(3) of the SO Regulation according to Article 50(4)(b) between the relevant asynchronously connected TSOs, shall be calculated per TSO-TSO settlement period as the integral over time of the difference of the active power schedule for the relevant HVDC interconnector with and without application of these ramping restrictions.
- (3) The volume of intended exchanges of energy as the result of ramping restrictions for active power output pursuant to Article 137(1) of the SO Regulation shall be defined when such restrictions apply. An amendment to these settlement rules shall then be submitted to the relevant regulatory authorities for approval.

### **Article 6**

#### **Pricing rules for intended exchanges of energy between relevant TSOs**

- (1) The price for intended exchanges of energy as the result of the frequency containment process for active power output on synchronous area level pursuant to Articles 172 and 173 of the SO Regulation according to Article 50(4)(a) of the EB Regulation shall be calculated by the relevant asynchronously connected TSOs according to the relevant annex.
- (2) The price for intended exchanges of energy as the result of ramping restrictions for active power output pursuant to Article 137(3) of the SO Regulation according to Article 50(4)(b) of the EB Regulation shall be calculated by the relevant asynchronously connected TSOs according to the relevant annex.
- (3) The price for intended exchanges of energy as the result of ramping restrictions for active power output pursuant to Article 137(1) of the SO Regulation shall be defined when such restrictions apply. An amendment to these settlement rules shall then be submitted to the relevant regulatory authorities for approval.

### **Article 7**

#### **Publication and implementation of these settlement rules**

- (1) All asynchronously connected TSOs shall publish these settlement rules without undue delay after all relevant regulatory authorities have approved the proposed settlement rules or a decision has been taken by the Agency for the Cooperation of Energy Regulators in accordance with Article 5(7), 6(1) and 6(2) of the EB Regulation.
- (2) The relevant asynchronously connected TSOs shall implement these settlement rules within 12 months after the approval of these settlement rules, in accordance with Article 5(5) of the EB Regulation.

### **Article 8**

#### **Language**

The reference language for this proposal shall be English. For the avoidance of doubt, where TSOs need to translate this proposal into their national language(s), in the event of inconsistencies between the English version published by TSOs in accordance with Article 7 of the EB Regulation and any version in another language, the relevant TSOs shall, in accordance with national legislation, provide the relevant regulatory authorities with an updated translation of the proposal.

Annexes for intended exchanges of energy as the result of the frequency containment process

### **Annex 1 - Elering/Fingrid**

- (1) The volume of energy exchanges of energy resulting from the exchange of frequency containment reserves is determined according to the volume of agreed frequency containment reserve frequency response times the frequency deviation during the respective TSO-TSO settlement period.
- (2) The settlement price for intended exchanges of energy from the exchange of frequency containment reserves is defined according to the costs of imbalance energy and/or costs related to balancing for the provider of FCP energy.

## **Annexes for intended exchanges of energy as the result of ramping restrictions for active power output**

### **Annex 1 – TenneT NL/Statnett**

Intended exchanges of energy as the result of ramping restrictions pursuant to Article 137(3) of the SO Regulation shall be settled at the average of the day-ahead price of the Netherlands and NO2 per TSO-TSO settlement period.

### **Annex 2 – Energinet/Statnett**

Intended exchanges of energy as the result of ramping restrictions pursuant to Article 137(3) of the SO Regulation shall be settled at the average of the regulating power price in the dominating direction of DK1 and NO2 per TSO-TSO settlement period.

### **Annex 3 – Energinet/Svenska kraftnät**

Intended exchanges of energy as the result of ramping restrictions pursuant to Article 137(3) of the SO Regulation shall be settled at the average of the regulating power price in the dominating direction of the Danish bidding zone DK1 and the Swedish bidding zone SE3 per TSO-TSO settlement period.

### **Annex 4 – Energinet/Energinet**

Intended exchanges of energy as the result of ramping restrictions pursuant to Article 137(3) of the SO Regulation shall be settled at the average of the regulating power price in the dominating direction of the Danish bidding zone DK1 and the Danish bidding zone DK2 per TSO-TSO settlement period.

### **Annex 5 – Energinet/50 Hertz Transmission**

Intended exchanges of energy as the result of ramping restrictions pursuant to Article 137(3) of the SO Regulation shall be settled at the average of the day-ahead price in the Danish bidding zone DK2 and the German bidding zone per TSO-TSO settlement period.

### **Annex 6 – PSE/Svenska kraftnät**

Intended exchanges of energy as the result of ramping restrictions pursuant to Article 137(3) of the SO Regulation shall be settled at the average of the Polish imbalance price and the imbalance price in the Swedish bidding zone SE4 per TSO-TSO settlement period. For SE4, the imbalance price refers to the imbalance price of consumption until Sweden changes to single position used for imbalance calculation in accordance with EB Regulation Article 54(3)(a).



### **Annex 7 – PSE/Litgrid**

Intended exchanges of energy as the result of ramping restrictions pursuant to Article 137(3) of the SO Regulation shall be settled at the average of the Polish imbalance price and the Lithuanian imbalance price per TSO-TSO settlement period.

### **Annex 8 – Litgrid/Svenska kraftnät**

Intended exchanges of energy as the result of ramping restrictions pursuant to Article 137(3) of the SO Regulation shall be settled at the average of the Lithuanian imbalance price and the imbalance price in the Swedish bidding zone SE4 per TSO-TSO settlement period. For SE4, the imbalance price refers to the imbalance price of consumption until Sweden changes to single position used for imbalance calculation in accordance with EB Regulation Article 54(3)(a).

### **Annex 9 – Elering/Fingrid**

Intended exchanges of energy as the result of ramping restrictions pursuant to Article 137(3) of the SO Regulation shall be settled at the average of the Estonian imbalance price and the imbalance price in Finland per TSO-TSO settlement period. For Finland, the imbalance price refers to the imbalance price of consumption until Finland changes to single position used for imbalance calculation in accordance with EBGL Article 54(3)(a).

