

**Proposal of all TSOs of the LFC Block  
TNG+TTG+AMP+50HZT+EN+CREOS concerning coordination actions  
aiming to reduce FRCE in accordance with Article 152(14) and Article  
152(16) of Commission Regulation (EU) 2017/1485 establishing a  
guideline on electricity transmission system operation**

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50Hertz Transmission GmbH (50HZT), Amprion GmbH (AMP), Creos Luxembourg S. A. (CREOS), Energinet (EN), TenneT TSO GmbH (TTG), TransnetBW GmbH (TNG), taking into account the following

**Whereas**

- (1) This document is a common proposal developed by all Transmission System Operators of Danish-German-Luxembourgish LFC Block (hereafter referred to as “TSOs”) regarding the coordinated actions aiming to reduce FRCE in accordance with Article 152(14) and Article 152(16) of Commission Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation (hereafter referred to as “SOGL”)
- (2) Article 6(3)(e)(ii) of SOGL requires the approval by all regulatory authorities of the concerned region of the proposal by all TSOs of an LFC block concerning “[...] *coordination actions aiming to reduce FRCE as defined in Article 152(14)*”.
- (3) Article 6(3)(e)(iii) of SOGL requires the approval by all regulatory authorities of the concerned region of the proposal by all TSOs of an LFC block concerning “[...] *measures to reduce FRCE as defined in Article 152(16)*”.
- (4) Article 152(14) of SOGL refers to operational conditions defined by Article 152(12) of SOGL and Article 152(13) of SOGL and defines the obligation to monitor the respective conditions and to specify coordinated actions in the LFC block operational agreement:  
*“14. The LFC block monitor shall be responsible for identifying any violation of the limits in paragraphs 12 and 13 and:  
(a) shall inform the other TSOs of the LFC block; and  
(b) together with the TSOs of the LFC block shall implement coordinated actions to reduce the FRCE which shall be specified in the LFC block operational agreement.”*
- (5) The operational conditions of Article 152(12) of SOGL and Article 152(13) of SOGL are as follows:  
*“12. Where the 1-minute average of the FRCE of a LFC block is above the Level 2 FRCE range at least during the time necessary to restore frequency and where the TSOs of a LFC block do not expect that FRCE will be sufficiently reduced by undertaking the actions in paragraph 15, TSOs shall have the right to require changes in the active power production or consumption of power generating modules and demand units within their respective areas to reduce the FRCE as specified in paragraph 16.*

*13. For the CE and Nordic synchronous areas, where the FRCE of a LFC block exceeds 25 % of the reference incident of the synchronous area for more than 30 consecutive minutes and if the TSOs of a LFC block do not expect to reduce sufficiently the FRCE with the actions taken pursuant to paragraph 15, the TSOs shall require changes in the active power production or consumption of power generating modules and demand units within their respective areas to reduce the FRCE as specified in paragraph 16.”*

- (6) Article 152(15) requires that “[...] all the TSOs of each synchronous area shall specify in the synchronous area operational agreement actions to enable the TSOs of a LFC block to actively reduce the frequency deviation with the cross-border activation of reserves. In cases referred to in paragraphs 11 to 13 the TSOs of the synchronous area shall endeavour to enable the TSOs of the concerned LFC block to reduce their FRCE.”
- (7) Article 152(16) of SOGL requires all TSOs of a LFC block to “[...] specify, in the LFC block operational agreement, measures to reduce the FRCE by means of changes in the active power production or consumption of power generating modules and demand units within their area.”
- (8) This proposal fulfils the requirements of the SOGL as follows:
  - (a) Article 3 defines the responsibility structure between the TSOs of the DE-LU-DK LFC block.
  - (b) Article 4 specifies the coordinated actions required by Article 152(14) and Article 152(16) of SOGL for the DE area.
  - (c) Article 5 specifies the coordinated actions required by Article 152(14) and Article 152(16) of SOGL for the DKW area.
- (9) The stipulations of the national energy laws regarding the possibility to adjust production and consumption remain unaffected by this proposal.
- (10) This proposal fulfils the objectives of SOGL as follows:
  - (a) The proposal determines common operational security requirements and principles, determines common load-frequency control processes and control structures and ensures the conditions for maintaining the required frequency quality level of the synchronous area CE by specifying the necessary coordinated actions to reduce FRCE under stressed operation conditions.
  - (b) The proposal contributes to efficiency and ensures that the TSOs use market-based mechanisms as far as possible by formulating the respective requirement in Article 4(2) and 5(2).
  - (c) The proposal respects the responsibility assigned to the TSOs for system security by the national legislation. In particular, national legislation applies for measures to reduce FRCE by changing the active power output of generating modules and demand units.
  - (d) The proposal ensures transparency by requiring the publication of the implemented measures in accordance with the national legislation.

**SUBMIT THE FOLLOWING PROPOSAL TO THE REGULATORY AUTHORITIES OF DENMARK, GERMANY AND LUXEMBOURG:**

**Article 1**

**Subject matter, scope and responsibility structure**

- (1) This proposal is based on the LFC block and LFC area structure defined by “All TSOs’ proposal for the determination of LFC blocks for the Synchronous Area Continental Europe in accordance with Article 141(2) of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation” and approved by the regulatory authorities.
- (2) In accordance with (1), the proposal applies only for the part of Denmark which is synchronously connected to the synchronous area CE.
- (3) This proposal defines the coordination actions aiming to reduce FRCE in accordance with Article 152(14) of SOGL and measures to reduce FRCE by requiring changes in the active power production or consumption of power generating modules and demand units in accordance with Article 152(16) of SOGL in the DE-LU-DK LFC block.

**Article 2**

**Definitions and interpretation**

- (1) For the purpose of the proposal, the terms used shall have the meaning given to them in Article 3 of SOGL.
- (2) ‘DE area’ means the monitoring areas 50HZT, AMP, CREOS, TNG and TTG.
- (3) ‘DKW area’ means the monitoring area EN which is synchronously interconnected with the synchronous area CE.
- (4) ‘DE-LU-DK LFC block’ means the LFC block comprising the DE area and the DKW area.

**Article 3**

**General Principles and Responsibilities**

- (1) The LFC block monitor shall identify the violation of limits in accordance with Article 152(12) of SOGL and Article 152(13) of SOGL for the whole DE-LU-DK LFC block.
- (2) Energinet shall identify the violation of limits in accordance with Article 152(12) of SOGL and Article 152(13) of SOGL for its monitoring area.
- (3) In case of violation of these limits,
  - (a) All TSOs of the DE area shall be responsible to reduce the FRCE of the DE area implementing the coordinated actions in accordance with Article 4.
  - (b) Energinet shall be responsible to reduce the FRCE of the DKW area implementing the coordinated actions in accordance with Article 5.
- (4) The TSOs shall publish the implementation of measures set forth by this proposal in accordance with the national legislation.

#### **Article 4**

##### **Coordinated actions aiming to reduce FRCE in accordance with Article 152(14) and Article 152(16) in DE Area**

- (1) All TSOs of the DE area shall apply the following coordinated actions to reduce the FRCE of the DE area:
  - (a) First priority: Activation of aFRR and mFRR including cross-border activation;
  - (b) Second priority:
    - i. activation of other reserves contracted in accordance with national legislation;
    - ii. procurement of energy in the intraday market;
  - (c) Third priority: Activation of emergency contracts with other TSOs.
- (2) All TSOs of the DE area shall
  - (a) endeavour to make use of market-based mechanisms in accordance with Article 4(2)(d) of SOGL;
  - (b) apply the actions in accordance with 1(b) and 1(c) in case actions in accordance with (1)(a) are not sufficient to reduce FRCE and to the extent necessary to restore or to support the required level of FRR to be prepared for additional system imbalances;
  - (c) prioritise actions in accordance with 1(b)(i) and 1(b)(ii) based on the criteria in accordance with (3).
- (3) While implementing the coordinated actions in accordance with (1) all TSOs of the DE area shall take into account:
  - (a) availability of measures in accordance with Article 152(15) of SOGL;
  - (b) availability of all reserve types;
  - (c) gate closure times, activation lead times, full activation times, minimum and maximum duration periods and other time constraints related to the available measures;
  - (d) operational security.

#### **Article 5**

##### **Coordinating actions aiming to reduce FRCE in accordance with Article 152(14) and Article 152(16) in DKW Area**

- (1) Energinet shall apply the following coordinated actions to reduce the FRCE of the DKW area:
  - (a) First priority: Activation of aFRR and mFRR including cross-border activation;
  - (b) Second priority: Activation of other reserves contracted in accordance with national legislation;
  - (c) Third priority: Activation of emergency contracts with other TSOs.
- (2) In accordance with Article 4(2)(d) of SOGL, Energinet shall endeavour to make use of market-based mechanisms (1)(a) and (1)(b) while applying the actions specified in (1) as far as possible.

- (3) While implementing the coordinated actions in accordance with (1) Energinet shall take into account:
- (a) availability of measures in accordance with Article 152(15) of SOGL;
  - (b) availability of all reserve types;
  - (c) gate closure times, activation lead times, full activation times, minimum and maximum duration periods and other time constraints related to the available measures;
  - (d) operational security.

**Article 6**  
**Implementation Timescale**

The TSOs shall implement the proposal with the entry into force of the LFC block operational agreement in accordance with the deadlines defined by Article 119(2) of SOGL.

**Article 7**  
**Language**

The reference language for this proposal shall be English. For the avoidance of doubt, where TSOs need to translate the proposal into their national language(s), in the event of inconsistencies between the English proposal proposed by TSOs in accordance with Article 6 of the SOGL and any version in another language, the relevant TSOs shall be obliged to dispel any inconsistencies by providing a revised translation of the proposal to their relevant national regulatory authorities.