

**Proposal of all TSOs of the LFC Block
TNG+TTG+AMP+50HZT+EN+CREOS concerning ramping restrictions
for active power output in accordance with Article 137(3) and Article
137(4) 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 ramping restrictions for active power output in accordance with Article 137(3) and Article 137(4) of Commission Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation (hereafter referred to as “SOGL”)
- (2) Article 6(3)(e)(i) of SOGL requires the approval by all regulatory authorities of the concerned region of the proposal by all TSOs of an LFC block concerning “[...] *ramping restrictions for active power output in accordance with Article 137(3) and (4)*”.
- (3) Article 137(3) of SOGL gives the right to all connecting TSOs of an HVDC interconnector “[...] *to determine in the LFC block operational agreement common restrictions for the active power output of that HVDC interconnector to limit its influence on the fulfilment of the FRCE target parameter of the connected LFC blocks by agreeing on ramping periods and/or maximum ramping rates for this HVDC interconnector. Those common restrictions shall not apply for imbalance netting, frequency coupling as well as cross-border activation of FRR and RR over HVDC interconnectors.*”
- (4) Article 137(3) of SOGL states: “*All TSOs of a synchronous area shall coordinate these measures within the synchronous area.*”
- (5) Article 137(4) of SOGL gives all TSOs of an LFC block the right “[...] *to determine in the LFC block operational agreement the following measures to support the fulfilment of the FRCE target parameter of the LFC block and to alleviate deterministic frequency deviations, taking into account the technological restrictions of power generating modules and demand units*”.
- (6) This proposal fulfils the requirements of the SOGL by defining the maximum gradient for the HVDC interconnectors in Article 3(1).
- (7) The TSOs do not propose to introduce ramping restrictions in accordance with Article 137(4) of SOGL.
- (8) The coordination between the TSOs of the synchronous area required by Article 137(3) of SOGL is part of the synchronous area operational agreement.

- (9) This proposal fulfils the objectives of Article 4(1) of SOGL as follows:
- (a) The proposal determines common operational security requirements and principles for the ramping restrictions in the DE-LU-DK LFC block.
 - (b) The proposal respects the responsibility assigned to the TSOs for system security by the national legislation.
 - (c) The transparency is ensured by definition of the ramping restrictions of the proposal.
 - (d) The proposal for ramping restrictions for HVDC interconnectors does not introduce limitations to the market, as it allows a trade of 1200 MW/h from Nordic to Continental Europe and vice versa, while not impacting operational security in one of the synchronous areas.
 - (e) The proposal promotes the coordination of system operation since this proposal is a joint proposal of all TSOs of the DE-LU-DK LFC block. The coordination on the synchronous area level is part of the synchronous area operational agreement.

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 ramping restrictions in accordance with Article 137(3) of SOGL and Article 137(4) 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
Ramping Restrictions for Active Power Output of HVDC Interconnectors
in Accordance with Article 137(3)

- (1) The gradient of active power output of each HVDC interconnector to the synchronous area Nordic shall not exceed ± 30 MW/min.
- (2) The following conditions apply to DK1-NO, DK1-SE3 and DK1-DK2 HVDC lines:
 - (a) The condition of 30 MW/min with a maximum ramping of 600 MW/h limitation as a combined limitation on DK1-NO and DK1-SE3 HVDC lines.
 - (b) The conditions of 30MW/min with a maximum ramping of 600 MW/h limitation on the DK1-DK2 HVDC line.
- (3) The ramping restrictions shall support the fulfilment of the FRCE target parameter of the DE-LU-DK LFC block defined in the synchronous area operational agreement in accordance with Article 128(1) of SOGL and Article 128(2) of SOGL.
- (4) The ramping restrictions of the DKW area shall support the fulfilment of the FRCE target parameter of the DKW area defined in accordance with Article 128(4) of SOGL and shall not decrease the FRCE quality of the DE area.

Article 4
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 5
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.