

**APPROVAL PAPER OF THE REGULATORY
AUTHORITIES OF THE SYNCHRONOUS AREA
CONTINENTAL EUROPE**

ON

**ALL TSOs PROPOSAL FOR DETERMINATION
OF LFC BLOCKS FOR THE SYNCHRONOUS
AREA CONTINENTAL EUROPE**

11 June 2025

1. Introduction and legal context

This document elaborates an agreement of the Regulatory Authorities of Synchronous Area Continental Europe (hereinafter referred to as: SA CE NRAs) of 11 June 2025 on all Synchronous Area Continental Europe Transmission System Operators` (hereinafter referred to as: SA CE TSOs) proposal for determination of Load-Frequency Control blocks (hereinafter referred to as: LFC blocks) for the Synchronous Area Continental Europe (hereinafter referred to as: SA CE). SA CE TSOs submitted the proposal with regard to Article 141(2) of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation as amended by Commission Implementing Regulation (EU) 2021/280 of 22 February 2021 amending Regulations (EU) 2015/1222, (EU) 2016/1719, (EU) 2017/2195 and (EU) 2017/1485 in order to align them with Regulation (EU) 2019/943 (hereinafter referred to as: SO GL).

This agreement of the SA CE NRAs shall provide evidence that a decision on all SA CE TSOs proposal for determination of LFC blocks for the SA CE does not, at this stage, need to be adopted by the Agency for the Cooperation of Energy Regulators pursuant to Article 6(8) of SO GL. It is intended to constitute the basis on which the SA CE NRAs will each subsequently approve the proposal pursuant to Article 7 of SO GL.

According to the legal procedure set out in Article 6 and Article 7 of SOGL, a joint decision by SA CE NRAs is expected by 27 August 2025.

The legal provisions that lie at all SA CE TSOs proposal for determination of LFC blocks for the SA CE, and this SA CE NRAs agreement on the mentioned proposal, can be found in Articles 4, 6, 141(2) and 141(11) of SO GL. They are set out here for reference.

SO GL

Article 4

Objectives and regulatory aspects

1. This Regulation aims at:

- (a) *determining common operational security requirements and principles;*
- (b) *determining common interconnected system operational planning principles;*
- (c) *determining common load-frequency control processes and control structures;*
- (d) *ensuring the conditions for maintaining operational security throughout the Union;*
- (e) *ensuring the conditions for maintaining a frequency quality level of all synchronous areas throughout the Union;*
- (f) *promoting the coordination of system operation and operational planning;*
- (g) *ensuring and enhancing the transparency and reliability of information on transmission system operation;*
- (h) *contributing to the efficient operation and development of the electricity transmission system and electricity sector in the Union.*

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) *[...]*
- (d) *[...]*

- (e) respect the responsibility assigned to the relevant TSO in order to ensure system security, including as required by national legislation;
[...]

Article 6

Approval of terms and conditions or methodologies of TSOs

1. Each regulatory authority or where applicable the Agency, as the case may be, shall approve the terms and conditions or methodologies developed by TSOs under paragraphs 2 and 3. The entity designated by the Member State shall approve the terms and conditions or methodologies developed by TSOs under paragraph 4. The designated entity shall be the regulatory authority unless otherwise provided by the Member State. Before approving the terms and conditions or methodologies, the regulatory authority, the Agency or the designated entity shall revise the proposals where necessary, after consulting the respective TSOs, in order to ensure that they are in line with the purpose of this Regulation and contribute to market integration, nondiscrimination, effective competition and the proper functioning of the market. (...)
 2. (...)
 3. The proposals for the following terms and conditions or methodologies and any amendments thereof shall be subject to approval by all regulatory authorities of the concerned region, on which a Member State may provide an opinion to the concerned regulatory authority:
 - (a) (...)
 - (b) (...)
 - (c) (...)
 - (d) (...)
 - (e) (...)
 - (f) (...)
 - (g) common proposal per synchronous area for the determination of LFC blocks in accordance with Article 141(2).
- [...]
6. 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. Proposals for terms and conditions or methodologies subject to the approval by several regulatory authorities in accordance with paragraph 3 shall be submitted to the Agency within 1 week of their submission to regulatory authorities. Proposals for terms and conditions or methodologies subject to the approval by a designated entity in accordance with paragraph 4 may be submitted to the Agency within 1 month of their submission at the discretion of the designated entity while they shall be submitted upon the Agency's request for information purposes in accordance with Article 3(2) of Regulation (EU) 2019/942 if the Agency considers the proposal to have a cross-border impact. Upon request by the competent regulatory authorities, the Agency shall issue an opinion within 3 months on the proposals for terms and conditions or methodologies.
 7. Where the approval of the terms and conditions or methodologies in accordance with paragraph 3 or the amendment in accordance with Article 7 requires a decision by more than one regulatory authority pursuant to paragraph 3, 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 or, where competent, the Agency shall take decisions concerning the submitted terms and conditions or methodologies in accordance with paragraphs 2 and 3 within 6 months following the receipt of the terms and conditions or methodologies by the Agency or the regulatory authority or, where applicable, by the last regulatory authority concerned. The period shall begin on the day following that on which the proposal was submitted to the Agency in accordance with paragraph 2 or to the last regulatory authority concerned in accordance with paragraph 3.

8. *Where the regulatory authorities have not been able to reach an agreement within the period referred to in paragraph 7 or upon their joint request, or upon the Agency's request according to the third subparagraph of Article 5(3) of Regulation (EU) 2019/942, the Agency shall adopt a decision concerning the submitted proposals for terms and conditions or methodologies within 6 months, in accordance with Article 5(3) and the second subparagraph of Article 6(10) of Regulation (EU) 2019/942.*

[...]

Article 141

1. *When specifying the process responsibility structure, all TSOs of each synchronous area shall take into account at least the following criteria:*

- (a) the size and the total inertia, including synthetic inertia, of the synchronous area;*
- (b) the grid structure and/or network topology; and*
- (c) the load, generation and HVDC behaviour.*

2. *By 4 months after entry into force of this Regulation, all TSOs of a synchronous area shall jointly develop a common proposal regarding the determination of the LFC blocks, which shall comply with the following requirements:*

- (a) a monitoring area corresponds to or is part of only one LFC area;*
- (b) a LFC area corresponds to or is part of only one LFC block;*
- (c) a LFC block corresponds to or is part of only one synchronous area; and*
- (d) each network element is part of only one monitoring area, only one LFC area and only one LFC block.*

3. (...)

4. (...)

5. (...)

6. (...)

7. (...)

8. (...)

9. (...)

10. (...)

11. *All TSOs of two or more LFC areas connected by interconnections shall have the right to form an LFC block if the requirements for the LFC block set out in paragraph 5 are fulfilled.*

[...]

2. The SA CE TSOs' proposal

The Baltic countries (Estonia, Latvia, and Lithuania) have successfully synchronised their electricity systems with the SA CE on 9 February 2025. This is a key milestone for the Baltic States and for Europe strengthening the energy resilience and independence across the region. The synchronisation enables the Baltic States to

manage their electricity grids in close cooperation with all other SA CE countries, with stable and reliable frequency control, significantly enhancing regional energy security. All electricity interconnections with Russia and Belarus have been permanently disconnected.

With the synchronization, the Baltic TSOs¹ established a Baltic LFC block in accordance with Article 141(11) of SO GL.

The Baltic LFC block consists of three LFC areas (Lithuanian LFC area, Latvian LFC area and Estonian LFC area). Each Baltic LFC area is operated by an individual TSO. The Baltic LFC block will ensure high cooperation between the Baltic TSOs in the load frequency control in the Baltic States and in the implementation of the Baltic balancing capacity and balancing energy markets. To this extent the Baltic TSOs:

- 1) started participating in a Frequency containment process (FCP) within the SA CE;
- 2) implemented a time control process according to Article 181 of SO GL and to SA CE Framework Agreement (SAFA) requirements;
- 3) implemented a Frequency restoration process (FRP) within the Baltic LFC block with the accession to the Platform for the International Coordination of automated Frequency Restoration and Stable System Operation (PICASSO);
- 4) started the imbalance netting process according to the International Grid Control Cooperation (IGCC) requirements.

The all SA CE TSOs proposal for determination of LFC blocks for the SA CE includes the new Baltic LFC block in the LFC block structure for the SA CE. The proposal was consulted from 9 December 2024 to 10 January 2025² and the last SA CE NRA received it on 27 February 2025, which determined the deadline for an SA CE NRAs agreement by 27 August 2025.

Despite the proposal mentions a full implementation within two months after the approval of the SA CE NRAs, the new LFC Block structure nonetheless started being operational, even if not formally approved, already on the date of the synchronization (9 February 2025), in order to ensure consistency with the overall frequency control process in the SA CE.

3. The SA CE NRAs position

The proposal for the determination of LFC blocks generally contributes towards determining the common load-frequency control processes and control structures required by Article 4 of SO GL. In particular, the LFC blocks determination specifies the LFC blocks, LFC areas and Monitoring areas, organized in order to improve the performance of the LFC control and the efficiency of the reserves dimensioning process, ensuring consistency with the existing bidding zones. The structure contributes to system security and common control process, and therefore to the achievement of the objectives of Article 4 of SO GL.

The all SA CE TSOs proposal matches the above-mentioned general requirements by describing how the frequency process operates in the SA CE after the synchronization with the Baltic electricity system.

¹ Elering AS, AS "Augstsprieguma tīkls", Litgrid AB

² The public consultation is available on the ENTSO-e website:

<https://consultations.entsoe.eu/system-operations/all-tsos-proposal-for-amending-the-determination-o/>

The SA CE NRAs are also aware that the Baltic LFC block is already operational even if not formally approved. This situation was clearly unavoidable, since the new LFC block configuration necessarily entered into operation on the date of the synchronization in order to ensure a smooth and efficient frequency control process, while a formal approval by the SA CE NRAs is a bit delayed since the last NRA received the proposal only after the synchronization date.

4. Conclusions

The SA CE NRAs welcome the submitted all SA CE TSOs proposal for determination of LFC blocks for the SA CE. The SA CE NRAs have assessed, consulted and closely cooperated and coordinated to reach an agreement on the mentioned proposal which meets the requirements of the SO GL and as such can be approved by the SA CE NRAs.

The SA CE NRAs agree to issue their national approval decisions on the basis of this approval paper and commit to adopt these decisions by 30 June 2025 at the latest in order to provide legal support to the new LFC block structure that has already been into operation since the synchronization date.