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# Explanatory note for the determination of LFC blocks proposal for synchronous area Continental Europe

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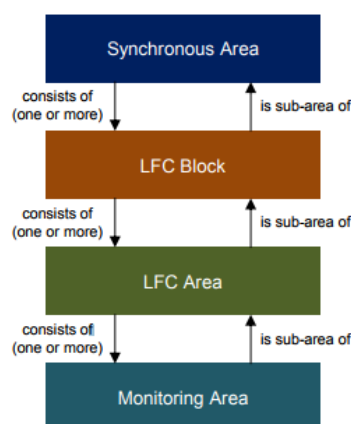
## **DISCLAIMER**

This document is released on behalf of the all transmission system operators (“TSOs”) only for the purposes of the public consultation on the all TSOs’ proposal for the determination of LFC blocks (“LFC blocks determination”) in accordance with Article 141(2) of the Commission Regulation (EU) No 2017/1485 of 2 August establishing a guideline on electricity transmission system operation (“SO GL”). This version of the LFC blocks determination Proposal does not in any case represent a firm, binding or definitive TSOs’ position on the content.

## Explanatory note

The operation of Load-Frequency Control (LFC) processes is based on operational areas, where every area has their individual responsibilities with respect to the LFC structure. The superior structure is the synchronous area in which frequency is the same for the whole area. The synchronous area Continental Europe (CE) consists of several LFC Blocks, each LFC Block consists of one or more LFC Areas. An LFC Area itself consists of one or more Monitoring areas.

The above described hierarchy is illustrated in Figure 1. Each of these operational areas has their own obligations. A Monitoring Area has the obligation to calculate and measure the active power interchange in real-time in that area. A LFC Area has the additional obligation to fulfil the frequency restoration quality target parameters by using the frequency restoration process. A LFC Block is in addition responsible for the dimensioning of frequency restoration reserve (FRR) and replacement reserves (RR). The Synchronous Area has the obligation to fulfil the frequency quality target parameters by using the frequency containment process.



**Figure 1. Types and hierarchy of areas operated by TSOs**

According to the Article 141(2) of Commission Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation (hereafter referred to as “SO GL”), 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 LFC blocks, which shall comply with the following requirements:

- a monitoring area corresponds to or is part of only one LFC area;
- a LFC area corresponds to or is part of only one LFC block;
- a LFC block corresponds to or is part of only one synchronous area; and
- each network element is part of only one monitoring area, only one LFC area and only one LFC block.

This proposal covers all the previous requirements, taking into account the load-frequency control structure in accordance with Article 139 of SO GL.

Finally, and according to the Article 6(3)(g), this proposal shall be subject to approval by all regulatory authorities of the Synchronous Area Continental Europe.