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**Proposal from the Transmission system operators, Energinet, Svenska kraftnät and Statnett for the determination of LFC blocks within the Nordic Synchronous Area 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**

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**DISCLAIMER**

This document is released on behalf of the transmission system operators Energinet, Affärsverket Svenska kraftnät and Statnett SF only for the purposes of the public consultation on the determination of LFC blocks within the Nordic Synchronous Area 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. This version of the LFC blocks determination proposal does not in any case represent a firm, binding or definitive TSOs' position on the content.

Transmission system operators Energinet, Svenska kraftnät and Statnett, taking into account the following:

### Whereas

- (1) This document is the proposal developed by the Transmission System Operators Energinet, Svenska kraftnät and Statnett regarding the determination of LFC blocks within the Nordic Synchronous Area (hereafter referred to as “**Nordic SA**”) in accordance with Article 141(2) of Commission Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation (hereafter referred to as “**SO GL Regulation**”).
- (2) This LFC blocks determination proposal takes into account the general principles and goals set in the SO GL Regulation as well as in the 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 “**Regulation (EC) No 714/2009**”). The goal of the SO GL Regulation/Regulation (EC) No 714/2009 is the safeguarding of operational security, frequency quality and the efficient use of the interconnected system and resources. Article 141(2) of the SO GL Regulation sets for this purpose requirements to determine the LFC blocks per synchronous area, which shall comply with the followings requirements:
  - a. *a monitoring area corresponds to or is a part of only one LFC area.*
  - b. *an LFC area corresponds to or is a part of only one LFC block.*
  - c. *an LFC block corresponds to or is a 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) The scope of this LFC blocks determination proposal is to establish the LFC blocks for the Nordic SA, while respecting the requirements set in Article 141(2) of the SO GL Regulation.
- (4) This LFC blocks determination proposal takes into account the load-frequency control structure of the Nordic synchronous area in accordance with Article 139, 140 and 141 of SO GL Regulation.
- (5) In regards to regulatory approval, Article 6(3) of the SO GL Regulation states:  
*"The proposals for the following terms and conditions or methodologies 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:*  
.....  
*g) common proposal per synchronous area for the determination of LFC blocks in accordance with Article 141(2)."*
- (6) The TSOs of Denmark (DK2), Sweden and Norway have agreed to form an LFC block in the Nordic SA in accordance with article 141(11) in the SO GL Regulation:  
*"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."*
- (7) According to Article 6(6) of the SO GL Regulation, the expected impact of the LFC blocks determination Proposal on the objectives of the SO GL Regulation has to be described. It is presented below.

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- (8) The proposed LFC blocks determination proposal generally contributes toward determining the load-frequency control processes and control structures required by Article 4(1)(c) of the SO GL Regulation.
- (9) In conclusion, the LFC blocks determination proposal contributes to the general objectives of the SO GL Regulation to the benefit of all market participants and electricity end consumers.

**SUBMIT THE FOLLOWING LFC BLOCKS DETERMINATION PROPOSAL TO ALL REGULATORY AUTHORITIES OF THE NORDIC SYNCHRONOUS AREA:**

**Article 1**  
**Subject matter and scope**

The determination of LFC blocks as established in this proposal shall be considered as the proposal from the TSOs Energinet, Svenska kraftnät and Statnett for the Nordic SA in accordance with Article 141(2) of SO GL Regulation.

**Article 2**  
**Definitions and interpretation**

1. For the purposes of the LFC blocks determination proposal, terms used in this document shall have the meaning of the definitions included in Article 3 of the SO GL Regulation, of Regulation (EC) 714/2009 and Directive 2009/72/EC.
2. In this LFC blocks determination proposal, unless the context requires otherwise:
  - a) the singular indicates the plural and vice versa;
  - b) headings are inserted for convenience only and do not affect the interpretation of this LFC blocks determination proposal; and
  - 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**  
**Determination of LFC blocks**

The LFC blocks, LFC areas and monitoring areas for the Nordic SA are set out in Table 1 below.

Country	TSO (full company name)	TSO (short name)	Monitoring Area	LFC Area	LFC Block
Finland	Fingrid Oyj	Fingrid	FI	FI	Finland
Denmark	Energinet	Energinet	DK2	DK2	Denmark(DK2)+Sweden+Norway
Sweden	Affärsverket Svenska kraftnät	Svk	SE1	SE1	Denmark(DK2)+Sweden+Norway
		Svk	SE2	SE2	Denmark(DK2)+Sweden+Norway
		Svk	SE3	SE3	Denmark(DK2)+Sweden+Norway
		Svk	SE4	SE4	Denmark(DK2)+Sweden+Norway
Norway	Statnett SF	Statnett	NO1	NO1	Denmark(DK2)+Sweden+Norway
		Statnett	NO2	NO2	Denmark(DK2)+Sweden+Norway
		Statnett	NO3	NO3	Denmark(DK2)+Sweden+Norway
		Statnett	NO4	NO4	Denmark(DK2)+Sweden+Norway
		Statnett	NO5	NO5	Denmark(DK2)+Sweden+Norway

Table 1: Determination of LFC blocks in the Nordic Synchronous Area with monitoring and LFC areas

#### **Article 4**

##### **Publication and implementation**

1. The TSOs shall publish the LFC blocks determination proposal without undue delay after all NRAs have approved the proposal or a decision has been taken by the Agency for the Cooperation of Energy Regulators in accordance with Article 8(1) of the SO GL Regulation.
2. By 18 months after entry into force of SO GL Regulation, the TSOs shall implement the LFC blocks determination proposal as soon as regulatory authorities have approved the proposal in accordance with Article 6 (3) SO GL Regulation or a decision has been taken by the Agency in accordance with Article 6(8) SO GL Regulation.

#### **Article 5**

##### **Language**

The reference language for this LFC blocks determination proposal shall be English. For the avoidance of doubt, where TSOs need to translate this LFC blocks determination proposal into their national language(s), in the event of inconsistencies between the English version published by TSOs in accordance with Article 8 of the SO GL Regulation and any version in another language, the relevant TSOs shall, in accordance with national legislation, provide the relevant national regulatory authorities with an updated translation of the LFC blocks determination proposal.