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**Proposal from all TSOs of the Nordic synchronous area 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**

Date 09/03/2018

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**DISCLAIMER**

This document is released on behalf of all TSOs of the Nordic synchronous area 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

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All TSOs in the Nordic synchronous area, taking into account the following:

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### Whereas

- 10 (1) This document is a common proposal developed by all Transmission System Operators in  
11 Nordic synchronous area (hereafter referred to as “TSOs”) regarding the determination of load-  
12 frequency control (hereafter referred to as “LFC”) blocks within the Nordic synchronous area  
13 (hereafter referred to as “Nordic SA”) in accordance with Article 141(2) of Commission  
14 Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system  
15 operation (hereafter referred to as “SO Regulation”). This proposal is hereafter referred to as  
16 “Proposal”.
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- 18 (2) This Proposal takes into account the general principles and goals set in the SO Regulation as  
19 well as in the Regulation (EC) No 714/2009 of the European Parliament and of the Council of  
20 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity  
21 (hereafter referred to as “Regulation (EC) No 714/2009”). The goal of the SO Regulation and  
22 Regulation (EC) No 714/2009 is the safeguarding of operational security, frequency quality and  
23 the efficient use of the interconnected system and resources. Article 141(2) of the SO  
24 Regulation sets for this purpose requirements to determine the LFC blocks per synchronous  
25 area, which shall comply with the followings requirements:
- 26 a. *a monitoring area corresponds to or is a part of only one LFC area.*  
27 b. *a LFC area corresponds to or is a part of only one LFC block.*  
28 c. *a LFC block corresponds to or is a part of only one synchronous area; and*  
29 d. *each network element is part of only one monitoring area, only one LFC area and only*  
30 *one LFC block.*
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- 32 (3) The scope of this LFC blocks determination Proposal is to establish the LFC block for the  
33 Nordic SA, while respecting the requirements set in Article 141(2) of the SO Regulation and  
34 has been developed in accordance with Article 5(2) of the SO Regulation and decided in  
35 accordance with Article 5(7) of the SO Regulation.
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- 37 (4) This Proposal takes into account the load-frequency control structure of the Nordic SA in  
38 accordance with Article 139, 140 and 141 of SO Regulation.
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- 40 (5) In regards to regulatory approval, Article 6(3) of the SO Regulation states:  
41 *"The proposals for the following terms and conditions or methodologies shall be subject to*  
42 *approval by all regulatory authorities of the concerned region, on which a Member State*  
43 *may provide an opinion to the concerned regulatory authority:*  
44 *.....*  
45 *g) common proposal per synchronous area for the determination of LFC blocks in accordance*  
46 *with Article 141(2)."*
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- 48 (6) The Proposal generally contributes towards determining the load-frequency control processes  
49 and control structures required by Article 4(1)(c) of the SO Regulation.
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- 51 (7) The Proposal serves the objective to ensure the conditions for maintaining a frequency quality  
52 level of all synchronous areas throughout the Union (Article 4(1)(e) of the SO Regulation)  
53 through the determination of LFC blocks, LFC areas and monitoring areas that define the load-  
54 frequency control structure for the Nordic SA according to which the relevant TSOs shall  
55 specify the allocation of responsibilities on frequency containment and frequency restoration  
56 processes and define the frequency quality defining parameters and the frequency quality target  
57 parameters for monitoring the frequency quality level of the Nordic SA.

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59 (8) In regard of the objective to ensure and enhance the transparency and reliability of information  
60 on transmission system operation (Article 4(1)(g) of SO Regulation), the Proposal ensures the  
61 reliability of information by specifying each bidding zone as a LFC area and a monitoring area  
62 in which TSOs shall continuously calculate and monitor the real-time active power exchange  
63 between the bidding zones and the transparency of information for all balancing service  
64 providers by establishing a common balancing market for the Nordic SA and ensuring the  
65 application of market-based mechanisms in the widest possible extent. This is an outcome of  
66 having one LFC block in the Nordic SA.

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68 (9) The Proposal contributes to the efficient operation and development of the electricity  
69 transmission system and electricity sector in the Union (Article 4(1)(h) of the SO Regulation)  
70 by the facilitation of the sharing and exchange of FRR reserves and the minimization of the  
71 amount of FRR counter activations between LFC areas through imbalance netting for activation  
72 between the LFC areas within the LFC block of the Nordic SA which shall be agreed in the LFC  
73 block operational agreement. This is a result of having one LFC block in the Nordic SA within  
74 which the sharing and exchange of reserves shall take place.

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76 (10) The Proposal facilitates the application of the principle of optimization between the highest  
77 overall efficiency and lowest total cost for all parties involved (Article 4(2)(c) of the SO  
78 Regulation) and the aim of ensuring that the TSOs make use of the market-based mechanisms  
79 as far as possible to ensure network security and stability (Article 4(2)(d) of the SO Regulation)  
80 by defining a LFC structure that contributes to common balancing markets for the activation of  
81 the most efficient resources to balance the Nordic SA. This is an outcome of having one LFC  
82 block in the Nordic SA.

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84 (11) Finally, the Proposal respects the responsibility assigned to the relevant TSO in order to ensure  
85 system security, including as required by national legislation. Each TSO in Nordic SA has the  
86 responsibility to monitor operational security on its own control area consisting of one or more  
87 bidding zones. This is a result of a bidding zone corresponding to a monitoring area.  
88 Furthermore, each TSO shall operate its control area with sufficient upward and downward  
89 active power reserves, which may include shared or exchanged reserves to face imbalances  
90 between demand and supply within its control area consisting of one or more bidding zones and  
91 as agreed between the TSOs belonging to the LFC block of the Nordic SA. This is a result of  
92 bidding zone corresponding to a LFC area.

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94 (12) In conclusion, the Proposal contributes to the general objectives of the SO Regulation to the  
95 benefit of the market participants and electricity end consumers.

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99 SUBMIT THE FOLLOWING LFC BLOCKS DETERMINATION PROPOSAL TO ALL  
100 REGULATORY AUTHORITIES:

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

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The determination of LFC blocks as established in this proposal shall be considered as the proposal from all TSOs of the Nordic SA complying with Article 2(2) of the SO Regulation in accordance with Article 141(2) of the SO Regulation.

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

- 109 1. For the purposes of the Proposal, terms used in this Proposal shall have the meaning of the  
110 definitions included in Article 3 of the SO Regulation and Article 2 of Regulation (EC) 714/2009,  
111 Regulation (EU) 543/2013 and Directive 2009/72/EC.  
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- 113 2. In this Proposal, unless the context requires otherwise:  
114 a) the singular indicates the plural and vice versa;  
115 b) headings are inserted for convenience only and do not affect the interpretation of this Proposal;  
116 and  
117 c) any reference to legislation, regulations, directive, order, instrument, code or any other  
118 enactment shall include any modification, extension or re-enactment of it then in force.  
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## **Article 3** **Synchronous Area Nordic LFC blocks, LFC areas and monitoring areas**

122 The Nordic SA corresponds to a LFC block and a bidding zone corresponds to a LFC area and a  
123 monitoring area.  
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## **Article 4** **Publication and implementation of the LFC blocks determination proposal**

- 127 1. The TSOs shall publish the Proposal without undue delay after all NRAs of the Nordic SA have  
128 approved the Proposal or a decision has been taken by the Agency for the Cooperation of Energy  
129 Regulators in accordance with Article 6(8) of the SO Regulation.  
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- 131 2. The Proposal shall enter into force immediately after it has been approved by the relevant NRAs.  
132 The TSOs shall implement the Proposal in Nordic SA after the Nordic synchronous area operational  
133 agreement concluded in accordance with Article 118 of the SO Regulation, LFC block operational  
134 agreement concluded in accordance with Article 119 of the SO Regulation and LFC area operational  
135 agreement concluded in accordance with Article 120 of the SO Regulation have been implemented.  
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## **Article 5** **Language**

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