Nordic synchronous area proposal for the FRR dimensioning rules in accordance with Article 157(1) of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation

28 June 2018

DISCLAIMER
This document is released on behalf of all TSOs of the Nordic synchronous area only for the purposes of the public consultation on FRR dimensioning rules in accordance with Article 157(1) of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation. This version of the proposal for FRR dimensioning rules does not in any case represent a firm, binding or definitive TSOs' position on the content.

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

Whereas

(1) This document is the common proposal developed by all Transmission System Operators within the Nordic synchronous area (hereafter referred to as "**TSOs**") for the FRR dimensioning rules in accordance with Article 157(1) of Commission Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation (hereafter referred to as "**SO Regulation**"). This proposal is hereafter referred to as "**Proposal**".

(2) The Proposal takes into account the general principles and goals set in SO Regulation as well as 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 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 119(1)(h) of the SO Regulation sets for this purpose requirements for the TSOs to "*jointly develop common proposals for: [..] the FRR dimensioning rules defined in accordance with Article 157(1);"*

(3) Article 157(1) of the SO Regulation defines the scope of this Proposal: *"1. All TSOs of a LFC Block shall set out FRR dimensioning rules in the LFC Block operational agreement.".* In Article 157(2) of the SO Regulation the minimum requirements for the FRR dimensioning rules are specified.

(4) The TSOs apply two types of Frequency Restoration Reserves (FRR). This Proposal covers the dimensioning of both manual FRR (mFRR) and automatic FRR (aFRR).

(5) This Proposal describes the existing rules and does not comply with the requirements in Article 157 of the SO Regulation in all aspects. The TSOs have agreed on an approach for a new Nordic balancing model. Within the implementation process, the TSOs are developing a FRR dimensioning process which will comply with the requirements in Article 157 of the SO Regulation. Once defined, the TSOs will start an amendment process to this proposal.

(6) In regard to regulatory approval, Article 6(3) of the SO 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: […]
(e) methodologies and conditions included in the LFC block operational agreements in Article 119, concerning: […]
(iv) the FRR dimensioning rules in accordance with Article 157(1);"

(7) According to Article 6(6) of the SO Regulation the expected impact of the Proposal on the objectives of the SO Regulation has to be described and is presented below.

(8) The Proposal generally contributes to and does not in any way hamper the achievement of the objectives of Article 4 of the SO Regulation. In particular, the Proposal contributes to these objectives by specifying the dimensioning rules for mFRR and aFRR, which are key reserves that are used in the common Nordic load-frequency control processes. Sufficient mFRR and aFRR guarantee the right FRCE and frequency quality level and consequently maintain the operational security by reducing the risk for automatic Under Frequency Load Shedding (UFLS), automatic reduction of generation and for system blackouts due to under or over frequency.

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

SUBMIT THE FOLLOWING PROPOSAL TO ALL REGULATORY AUTHORITIES OF THE NORDIC SYNCHRONOUS AREA:

Article 1 - Subject matter and scope

1. The FRR dimensioning rules between the TSOs described in this Proposal are the common proposal of TSOs in accordance with article 157(1) of the SO Regulation. The Proposal applies solely to the Nordic synchronous area.

2. This Proposal is subject to approval in accordance with Article 6(3) of the SO Regulation.

Article 2 - Definitions and interpretation

3. For the purposes of this Proposal, the terms used shall have the meaning of the definitions included in Article 3 of the SO Regulation.

4. In this Proposal, unless the context requires otherwise:
   a) the singular indicates the plural and vice versa;
   b) the headings are inserted for convenience only and do not affect the interpretation of the Proposal; and
   c) any reference to legislation, regulations, directives, orders, instruments, codes or any other enactment shall include any modification, extension or re-enactment of it when in force.

Article 3 – mFRR dimensioning

1. Each TSO is responsible for dimensioning of mFRR for their control area and for determining the required geographical distribution of mFRR capacity within their control area;
2. The mFRR capacity dimensioned for the control area shall at least cover the dimensioning incidents in the control area, in which the ‘dimensioning incidents’ is defined as ‘faults which entail the loss of individual major components (production units, lines, transformers, bus bars, consumption etc.) and entail the greatest impact upon the power system from all fault events that have been taken into account.’. Both upward and downward mFRR shall be dimensioned.

Article 4 – aFRR dimensioning

1. Each quarter of a year, all Nordic TSOs determine the hours for which aFRR shall be dimensioned and the dimensioned amount of aFRR capacity based on the targeted frequency quality and the specifications in 2 and 3 below;
2. The hours for which aFRR shall be dimensioned shall at least include the hours where the frequency variations are most challenging;
3. Dimensioned aFRR capacity will be at least 300 MW.

Article 5 – Publication and implementation

1. The relevant TSOs shall publish (in accordance with Article 8 of the SO Regulation) the Proposal without undue delay after the competent NRAs have approved the Proposal or a decision has been taken by the Agency for the Cooperation of Energy Regulators in accordance with Article 6 of the SO Regulation.

2. The TSOs shall implement the Proposal not later than when Nordic LFC block operational agreement enters into force in accordance with Article 119 of the SO Regulation.

Article 6 - Language

The reference language for this Proposal shall be English. For the avoidance of doubt, where TSOs needs to translate this Proposal into national language(s), in the event of inconsistencies between the English version published by TSOs in Nordic Synchronous Area in accordance with Article 8(1) of the SO Regulation and any version in another language the relevant TSOs shall, in accordance with national legislation, provide the relevant national regulatory authority with an updated translation of the Proposal.