

**Approval by All Regulatory Authorities of the Nordic
synchronous area**

on

**the Nordic TSOs' Proposal for limits for the frequency
quality defining parameters and the frequency quality
target parameter in accordance with Article 127 of the
Commission Regulation (EU) 2017/1485 of 2 August 2017
establishing a guideline on electricity transmission system
operation**

6 March 2019

I. Introduction and legal context

This document elaborates an agreement of all Regulatory Authorities of the Nordic synchronous area (hereinafter referred to as NRAs), agreed on 6 March 2019, on all TSOs of the Nordic synchronous area's (hereinafter referred to as TSOs) Proposal for limits for the frequency quality defining parameters and the frequency quality target parameter submitted in accordance with Article 127 of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereinafter referred to as respectively "Nordic limits for the frequency quality defining parameters and the frequency quality target parameter Proposal" and "Regulation 2017/1485").

This agreement of the NRAs shall provide evidence that a decision on the Nordic limits for the frequency quality defining parameters and the frequency quality target parameter Proposal does not need to be adopted by ACER pursuant to Article 6(8) of the Regulation 2017/1485 at this stage. This document is intended to constitute the basis on which all NRAs will each subsequently make national decisions pursuant to Regulation 2017/1485 Article 6(1) to approve the Nordic limits for the frequency quality defining parameters and the frequency quality target parameter Proposal submitted by the TSOs. The TSOs are Fingrid Oyj, Svenska kraftnät, Energinet, Kraftnät Åland AB and Statnett SF.

The legal provisions relevant to the submission and approval of the Nordic limits for the frequency quality defining parameters and the frequency quality target parameter Proposal, and this all NRAs, are 4(1), 5(1), 6(3)(d)(i), 6(6), 6(7), 11, 118(1)(c) and 127 of Regulation 2017/1485, listed below.

Article 4(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.

Article 5(1)

TSOs shall develop the terms and conditions or methodologies required by this Regulation and submit them for approval to the competent regulatory authorities in accordance with Article 6(2) and (3) or for approval to the entity designated by the Member State in accordance with Article 6(4) within the respective deadlines set out in this Regulation.

Article 6(3)(d)(i)

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:

methodologies, conditions and values included in the synchronous area operational agreements in Article 118 concerning:

the frequency quality defining parameters and the frequency quality target parameter in accordance with Article 127;

Article 6(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 on terms and conditions or methodologies subject to the approval by several or all regulatory authorities shall be submitted to the Agency at the same time that they are submitted to regulatory authorities. 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.

Article 6(7)

Where the approval of the terms and conditions or methodologies requires a decision by more than one regulatory authority, 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 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 regulatory authority or, where applicable, by the last regulatory authority concerned.

Article 11

- 1) TSOs responsible for submitting proposals for terms and conditions or methodologies or their amendments in accordance with this Regulation shall consult stakeholders, including the relevant authorities of each Member State, on the draft proposals for terms and conditions or methodologies listed in Article 6(2) and (3). The consultation shall last for a period of not less than 1 month.
- 2) The proposals for terms and conditions or methodologies submitted by the TSOs at Union level shall be published and submitted to public consultation at Union level. Proposals submitted by the TSOs at regional level shall be submitted to public consultation at least at regional level. Parties submitting proposals at bilateral or at multilateral level shall carry out a public consultation at least in the Member States concerned.
- 3) The TSOs responsible for developing the proposal for terms and conditions or methodologies shall duly take into account the views of stakeholders resulting from the consultations prior to its submission for regulatory approval. In all cases, a sound justification for including or not including the views resulting from the consultation shall be provided together with the submission of the proposal and published in a timely manner before, or simultaneously with the publication of the proposal for terms and conditions or methodologies.

Article 118(1)(c)

By 12 months after entry into force of this Regulation, all TSOs of each synchronous area shall jointly develop common proposals for:
the frequency quality defining parameters and the frequency quality target parameters in accordance with Article 127;

Article 127

- 1) The frequency quality defining parameters shall be:
 - a) the nominal frequency for all synchronous areas;
 - b) the standard frequency range for all synchronous areas;
 - c) the maximum instantaneous frequency deviation for all synchronous areas;
 - d) the maximum steady-state frequency deviation for all synchronous areas;
 - e) the time to restore frequency for all synchronous areas;
 - f) the time to recover frequency for the GB and IE/Ni synchronous areas;
 - g) the frequency restoration range for the GB, IE/Ni and Nordic synchronous areas;
 - h) the frequency recovery range for the GB and IE/Ni synchronous areas; and
 - i) the alert state trigger time for all synchronous areas.
- 2) The nominal frequency shall be 50 Hz for all synchronous areas.
- 3) The default values of the frequency quality defining parameters listed in paragraph 1 are set out in Table 1 of Annex III.
- 4) The frequency quality target parameter shall be the maximum number of minutes outside the standard frequency range per year per synchronous area and its default value per synchronous area are set out in Table 2 of Annex III.
- 5) The values of the frequency quality defining parameters in Table 1 of Annex III and of the frequency quality target parameter in Table 2 of Annex III shall apply unless all TSOs of a synchronous area propose different values pursuant to paragraphs 6, 7 and 8.
- 6) All TSOs of CE and Nordic synchronous areas shall have the right to propose in the synchronous area operational agreement values different from those set out in Tables 1 and 2 of Annex III regarding:
 - a) the alert state trigger time;
 - b) the maximum number of minutes outside the standard frequency range.
- 7) All TSOs of the GB and IE/Ni synchronous areas shall have the right to propose in the synchronous area operational agreement values different from those set out in Tables 1 and 2 of Annex III regarding:
 - a) time to restore frequency;
 - b) the alert state trigger time; and
 - c) the maximum number of minutes outside the standard frequency range.
- 8) The proposal for modification of the values pursuant to paragraph 6 and 7 shall be based on an assessment of the recorded values of the system frequency for a period of at least 1 year and the synchronous area development and it shall meet the following conditions:
 - a) the proposed modification of the frequency quality defining parameters in Table 1 of Annex III or the frequency quality target parameter in Table 2 of Annex III takes into account:
 - i) the system's size, based on the consumption and generation of the synchronous area and the inertia of the synchronous area;
 - ii) the reference incident;

- iii) grid structure and/or network topology;
 - iv) load and generation behaviour;
 - v) the number and response of power generating modules with limited frequency sensitive mode — over frequency and limited frequency sensitive mode — under frequency as defined in Article 13(2) and Article 15(2)(c) of Regulation (EU) 2016/631;
 - vi) the number and response of demand units operating with activated demand response system frequency control or demand response very fast active power control as defined in Articles 29 and 30 of Regulation (EU) 2016/1388; and
 - vii) the technical capabilities of power generating modules and demand units;
- b) all TSOs of the synchronous area shall conduct a public consultation concerning the impact on stakeholders of the proposed modification of the frequency quality defining parameters in Table 1 of Annex III or the frequency quality target parameter in Table 2 of Annex III.
- 9) All TSOs shall endeavour to comply with the values for the frequency quality defining parameters or for the frequency quality target parameter. All TSOs shall verify the fulfilment of the frequency quality target parameter at least annually.

II. The TSO proposal

The Nordic limits for the frequency quality defining parameters and the frequency quality target parameter Proposal was submitted to the NRAs on 14 September 2018 together with a separate explanatory document. The proposal included a timescale for its implementation according to article 6(6), the proposal will be implemented no later than when the Nordic synchronous area operational agreement enters into force in accordance with Article 118. A description of impact of the proposed limits for frequency quality defining parameters and the frequency quality target parameter on the objectives in Article 4(1)(d), 4(1)(e), 4(1)(f), 4(1)(g) and 4(1)(h) of Regulation 2017/1485 was included in the proposal.

Regulation 2017/1485 requires NRAs to consult and closely cooperate and coordinate with each other in order to reach agreement and make decisions within six months following receipt of submissions of the last NRA concerned. A decision is therefore required by each NRA by 14 March 2019.

III. NRAs' position

The NRAs are of the opinion that the Nordic limits for the frequency quality defining parameters and the frequency quality target parameter Proposal enables the achievement of the objectives of Article 4 of Regulation 2017/1485.

The NRAs have therefore reached an agreement that the limits for the frequency quality defining parameters and the frequency quality target parameter Proposal meet the requirements of Regulation 2017/1485.

IV. Conclusions

All NRAs have assessed, consulted and closely cooperated to reach an agreement that the Nordic limits for the frequency quality defining parameters and the frequency quality target parameter Proposal meet the requirements of Regulation 2017/1485 and as such can be approved by all NRAs.

NRAs shall, on the basis of this agreement, make their national decisions by 14 March 2019. The Nordic limits for the frequency quality defining parameters and the frequency quality target parameter Proposal will be adopted upon the decision of the last NRA of Nordic synchronous area. Following the national decisions by all NRAs, TSOs are required to publish the Nordic limits for the frequency quality defining parameters and the frequency quality target parameter Proposal as approved, according to Article 8(1) of Regulation 2017/1485. All TSOs must respect the implementation deadlines provided in the Nordic limits for the frequency quality defining parameters and the frequency quality target parameter Proposal.