15 March 2019

DISCLAIMER

This document is released on behalf of all TSOs of the Nordic Capacity Calculation Region only for the purposes of the public consultation on operational security coordination in accordance with Articles 76 and 77 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 regional operational security coordination does not in any case represent a firm, binding or definitive TSOs' position on the content.

This draft proposal may be subject to changes depending on the ACER decision on the proposal for a methodology for coordinating operational security analysis in accordance with Article 75 of SO GL (CSA methodology).

Whereas

- (1) This document is the common proposal of the Transmission System Operators (hereafter referred to as "TSOs") of Capacity Calculation Region (hereafter referred to as "CCR") Nordic regarding regional operational security coordination within CCR Nordic (hereafter referred to as "NROSC" or "Proposal") in accordance with Article 76 and 77 of Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereafter referred to as "SO GL").
- (2) This Proposal takes into account the general principles and goals set in SO GL as well as Commission Regulation (EC) 2015/1222 establishing a guideline on capacity allocation and congestion management (hereafter referred to as "CACM"). The objective of SO GL is to safeguard operational security, frequency quality and the efficient use of the interconnected system and resources. To facilitate these objectives, it is necessary to enhance standardisation of operational security analysis at least per synchronous area according Article 75 of SO GL respectively within capacity calculation regions according Article 76 of SO GL. Standardisation shall be achieved through a common methodology for coordinating operational security analysis according Article 75 of SO GL.
- (3) Articles 76 and 77 of SO GL constitute the legal basis for this Proposal and define several requirements that it should include at least: (a) conditions and frequency of intraday coordination of operational security analysis and updates to the common grid model by the regional security coordinator; (b) the methodology for the preparation of remedial actions managed in a coordinated way, considering their cross-border relevance as determined in accordance with Article 35 of CACM, taking into account the requirements in Articles 20 to 23 of SO GL and determining at least: (i) the procedure for exchanging the information of the available remedial actions between relevant TSOs and the regional security coordinator; (ii) the classification of constraints and the remedial actions in accordance with Article 22 of SO GL; (iii) the identification of the most effective and economically efficient remedial actions in case of operational security violations referred to in Article 23(2) of SO GL; (v) the sharing of the costs of remedial actions in accordance with Article 22 of SO GL; (v) the sharing of the costs of remedial actions referred to in Article 22 of SO GL; (v) the sharing of the costs of remedial actions referred to in Article 22 of SO GL, complementing, where necessary, the common methodology developed in accordance with Article 74 of CACM.
- (4) This Proposal contributes to and does not in any way hinder the achievement of the objectives of Article 4 of SO GL. NROSC defines how regional operational security assessment shall be applied in a coordinated manner in day-ahead and intraday within CCR Nordic. Furthermore, this Proposal defines the principles of the organisation of regional operational security coordination within CCR Nordic.
- (5) All TSOs of CCR Nordic appoint Nordic Regional Security Coordinator (hereafter referred to as "Nordic RSC") as the regional security coordinator of CCR Nordic that will perform tasks set forth in this Proposal. Nordic RSC shall support the TSOs and facilitate the regional operational security coordination of CCR Nordic. This ensures equal treatment of all TSOs participating in the regional operational security coordination of CCR Nordic.
- (6) This Proposal considers and where necessary complements the proposal for a methodology for coordinating operational security analysis in accordance with Article 75 of SO GL (hereafter referred to as "CSA Methodology").
- (7) This Proposal considers and, where necessary, complements the common Nordic methodology for coordinated redispatching and countertrading (hereafter referred to as "**CRC Methodology**") in accordance with Article 35 of CACM.

- (8) This Proposal considers and, where necessary, complements the common Nordic methodology for coordinated redispatch and countertrading cost sharing (hereafter referred to as "CRCCS Methodology") in accordance with Article 74 of CACM.
- (9) According to Article 6(6) of SO GL this Proposal includes a timescale for its implementation and a description of its expected impact on the objectives of the SO GL.
- (10) In conclusion, NROSC shall contribute to the general objectives of the SO GL to the benefit of all TSOs, the Agency, regulatory authorities and market participants.

Title 1

General Provisions

Article 1

Subject matter and scope

- 1. This Proposal for regional operational security coordination in accordance with Article 76 of SO GL and for organisation of regional operational security coordination in accordance with Article 77 of SO GL is the common proposal of all TSOs of CCR Nordic namely Energinet (Denmark), Fingrid (Finland), Kraftnät Åland (Åland), Statnett (Norway) and Svenska kraftnät (Sweden).
- 2. This Proposal shall cover the day-ahead and intraday regional operational security coordination within CCR Nordic. This Proposal shall apply to all TSOs, Nordic RSC, DSOs, CDSOs and SGUs within CCR Nordic.
- 3. This Proposal is subject to NRA approval in accordance with Article 6(3)(b) of SO GL.

Article 2

Definitions and interpretation

1. For the purpose of this Proposal, the terms used shall have the meaning of the definitions included in Article 3 of SO GL, Article 2 of CACM and the other items of legislation referenced therein. In addition, the following definitions shall apply:

'adjacent CCR' means a CCR directly connected to CCR Nordic such as CCR Baltic, CCR Hansa or CCR Core;

'affected TSOs' means all TSOs affected by an activation of a remedial action, i.e. requesting TSO(s), in which control area the remedial action resolves a violation of operational security limits and activating TSO(s), in which control area a remedial action or a set of remedial actions is activated. Affected TSO(s) are TSO(s) and can be TSO(s) of adjacent CCR(s);

'agreed remedial action' means a remedial action with cross-border relevance or a cross-border impacting remedial action for which all affected TSOs have given their agreement for the activation of this remedial action on the system, when it will become necessary. Before its activation, such a remedial action is expected to be necessary based on security analyses performed during regional operational planning coordination;

'congestion' means a violation of constraints respectively violation of operational security limits;

'constraint' means the restrictive factors respectively operational security limits, such as thermal limits or stability limits for grid elements;

'coordinated operational security analysis' means an operational security analysis performed by a TSO on a common grid model;

'coordinated regional operational security assessment' means an operational security analysis performed by Nordic RSC on a common grid model;

'costs' are the actual costs and income incurred by activation of agreed remedial actions in realtime operation to relieve violations of operational security limits;

'Critical Network Element' (CNE) means a network element either within a TSO's control area or between TSO's control areas taken into account in the coordinated security coordination process, limiting the amount of power that can be exchanged. Network element means a branch (power line or transformer) or a Power Transfer Corridor (PTC), which has a maximum admissible flow;

'cross-border impact' means the effect in terms of a change of power flows or voltage on an interconnector or a transmission system element located outside of the TSO's control area resulting from the activation of a remedial action in the TSO's control area;

'contingency list' means a list of contingencies to be simulated in order to test the compliance with the operational security limits;

'cross-border impacting remedial action' means a remedial action or a set of remedial actions within CCR Nordic. The remedial actions are considered to be activated by TSOs in CCR Nordic and whose activation have a significant influence on at least one TSO in CCR Nordic that is not involved in its activation and has no influence on TSOs of adjacent CCRs. Nordic RSC shall facilitate the coordination of cross-border impacting remedial action amongst the TSOs in CCR Nordic;

'cross-CCR impacting remedial action' means a remedial action or a set of remedial actions where at least one TSO of CCR Nordic and at least one TSO of an adjacent CCR are affected. The remedial actions are considered to be activated by TSOs in CCR Nordic or TSOs in adjacent CCRs and whose activation have a significant influence on at least one TSO either in CCR Nordic or adjacent CCRs that is not involved in its activation. Nordic RSC shall facilitate the coordination of cross-CCR impacting remedial action amongst the TSOs in CCR Nordic and the RSCs of adjacent CCRs;

'cross-CCR" means an activity between CCR Nordic and an adjacent CCR;

'curative remedial action' means a remedial action that has been identified in an operational planning process and is activated immediately subsequent to the occurrence of the respective contingency for compliance with the (N-1) criterion, taking into account transitory admissible overloads and their accepted duration;

'D-1 IGM' means the TSO's day-ahead individual grid model used in day-ahead regional operational security coordination process;

'eID-ROSCP-ROSCP' means the enduring intraday regional operational security coordination process;

'grid element' means any component of a transmission system, including interconnectors, or of a distribution system, including a closed distribution system, such as a single line, a single circuit, a single HVDC system, a single transformer, a single phase-shifting transformer, or a voltage compensation installation, which influences cross-border operational security.

'iID-ROSCP-ROSCP' means the interim intraday regional operational security coordination process;

'ID IGM' means the TSO's intraday individual grid model used in intraday regional operational security coordination process;

'market time unit' (MTU) means the period for which the market price is established;

'monitored elements' means a list of grid elements which violations of operational security limits shall be monitored in regional operational security process. The list shall include at least the CNEs;

'non-cross-border impacting remedial actions' means an available remedial action within a TSO's control area;

'Nordic D-1 CGM' means the Nordic day-ahead common grid model used in day-ahead regional operational security coordination process;

'Nordic ID CGM' means the Nordic intraday common grid model used in intraday regional operational security coordination process;

'observability area' means a TSO's own transmission system and the relevant parts of distribution systems and neighbouring TSOs' transmission systems, on which the TSO implements real-time monitoring and modelling to maintain operational security in its control area including interconnectors;

'power transfer corridor (PTC)' means a set of several transmission lines or other grid components imposing a MW limit for operational security reasons. PTCs are classified as CNEs;

'preventive remedial action' means a remedial action that is the result of an operational planning process and needs to be activated prior to the investigated timeframe for compliance with the (N-1) criterion;

'remedial action' means any measure applied by a TSO or several TSOs, manually or automatically, in order to maintain operational security;

'regional operational security coordination process' means a regional operational security coordination process performed by all TSOs and Nordic RSC within CCR Nordic and if necessary with other TSOs and RSCs of adjacent CCRs;

'relevant asset' means any relevant demand facility, relevant power generating module, or relevant grid element partaking in the outage coordination;

'RSC(s) of adjacent CCR(s)' means one or more regional security coordinator(s) active in adjacent CCR(s) such as Baltic RSC, CORESO or TSCNET Services;

'set of remedial actions' means a combination of remedial actions that are to be activated as a whole to maintain operational security;

'TSOs' means all TSOs of CCR Nordic namely Energinet (Denmark), Fingrid (Finland), Kraftnät Åland (Åland), Statnett (Norway) and Svenska kraftnät (Sweden);

'TSO' means a single TSO of CCR Nordic;

'TSO(s) of (an) adjacent CCR(s)' means (a) TSO(s) of an adjacent CCR such as CCR Core, CCR Hansa or CCR Baltic.

Abbreviations:

'CGM' stands for 'common grid model'.

'CGMES' stands for 'common grid model exchange standard'.

'CNE' stands for critical network element.

'D-1' stands for day-ahead.

'ID' stands for intraday.

'IGM' stands for 'individual grid model'.

'NRA' stands for 'national regulatory authority'.

'RSC' stands for 'regional security coordinator'.

'ROSCP' stand for 'regional operational security coordination process'

- 2. 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;
 - c) References to an "Article" are, unless otherwise stated, references to an article of this Proposal; and
 - d) 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.

Title 2

Proposal for Nordic regional operational security coordination

Chapter 1

Provisions for regional operational security coordination

Article 3

General provisions for Nordic day-ahead and intraday regional operational security coordination process

- 1. In day-ahead and intraday regional operational security coordination process, all TSOs and Nordic RSC shall manage violations of operational security limits and remedial actions that are deemed cross-border impacting within CCR Nordic, in a coordinated way with the affected TSOs.
- 2. All TSOs shall jointly determine the minimum set of grid elements on which violations of operational security limits have to be identified and solved in accordance with Article 11 of this Proposal. The list of grid elements in accordance with Article 11 of this Proposal shall at least include all critical network elements (hereafter referred to as "CNE") of the CCR Nordic. The regional operational security coordination process shall ensure that
 - a. violations of operational security limits caused by a contingency with cross-border impact on the grid elements identified are relieved using at least the remedial actions provided by TSOs,
 - b. each TSO affected by a cross-border impacting remedial action is informed about the violations of operational security limits to be solved by this remedial action.
- All TSOs and Nordic RSC shall perform the day-ahead regional operational security coordination process using the Nordic day-ahead common grid model (hereafter referred to as "Nordic D-1 CGM").

- 4. All TSOs and Nordic RSC shall perform the intraday regional operational security coordination process on the basis of the Nordic intraday common grid model (hereafter referred to as "**Nordic ID CGM**").
- 5. The scope of day-ahead and intraday regional operational security coordination process shall be on operational security analysis and coordinated regional operational security assessment.
- 6. Prior to the start of the regional operational security coordination process each TSO may perform a local (TSO internal) security analysis on the individual grid model in order to detect any violations of operational security limits on internal grid elements and apply remedial actions, if necessary. Each TSO may choose whether or not to relieve violations of operational security limits on
 - a. grid elements identified as they will be relieved during the subsequent regional operational security coordination process, and
 - b. any other grid elements provided those violations of operational security limits are likely to be solved by remedial actions which are not deemed cross-border impacting.
- 7. For a remedial action which is deemed cross-border or cross-CCR impacting the following conditions for the implementation of the proposed remedial action shall be met:
 - a. this remedial action is considered available in a consistent manner from the time frame of its decision to all the subsequent timeframes of security analyses, up to real time,
 - b. this remedial action is considered economically efficient to relieve violations of operational security limits,
 - c. when this remedial action is preventive, it is not setting the affected TSO's grid in an alert state based on the common grid models used for its decision,
 - d. when this remedial action is curative, it is not leading to a violation of an operational security limit in the affected TSO's grid after the simulation of the corresponding contingency based on the common grid models used for its decision.
- 8. When the conditions established in paragraph 7 of Article 3 of this Proposal are not met, each affected TSO shall accept or reject the implementation of the proposed remedial action. In case of rejection of the remedial actions by one or several TSOs, the concerned TSOs shall provide an explanation for the decision.
- 9. When providing remedial actions to the Nordic RSC each TSO shall assure that the remedial actions are available for the regional operational security coordination process of the respective market time unit (hereafter referred to as "MTU").
- 10. When relieving violations of operational security limits, each TSO shall take into consideration all the remedial actions already agreed during previously performed regional operational security coordination processes of the same market time unit. If an unscheduled outage has made a remedial action unavailable or the remedial action has become technically unavailable, this remedial action shall not be considered in the subsequent regional operational security coordination process.
- 11. When a TSO wants to modify the consistency of a remedial action which has been previously coordinated and agreed, this TSO shall again assess the cross-border impact of the new remedial action and, where necessary, shall coordinate it with the affected TSOs.
- 12. Each TSO shall include in the individual grid model all remedial actions already agreed as a result of previous regional operational security coordination processes.
- 13. All TSOs shall ensure that the coordination of cross-border impacting remedial actions and the coordination of remedial action of cross-border relevance as determined in accordance with CRC Methodology are treated in a consistent way.

Article 4

Specific provisions for Nordic intraday regional operational security coordination process

- 1. All TSOs agree on a stepwise implementation of the intraday regional operational security coordination process.
- 2. The stepwise implementation of the intraday regional operational security coordination process is defined by an interim and an enduring intraday regional operational security coordination process. The implementation of the interim intraday regional operational security coordination process (hereafter referred to as "**iID-ROSCP**") shall be replaced by the implementation of the enduring intraday regional operational security coordination process (hereafter referred to as "**eID-ROSCP**") in accordance with Article 31 of this Proposal.
- 3. The interim intraday regional operational security coordination process shall be performed in accordance with Article 6 of this Proposal.
- 4. The enduring regional operational security coordination process shall be performed in accordance with Article 7 of this Proposal.

Chapter 2

Day-Ahead regional operational security coordination

Article 5

Day-Ahead regional operational security coordination process

- 1. All TSOs and Nordic RSC shall apply the following day-ahead regional operational security coordination process, where the respective hours (T0(D-1), T1(D-1), T2(D-1), T3(D-1), T4(D-1), T5(D-1)) are defined in accordance with Article 27 of this Proposal:
 - a. At latest by T0(D-1), all TSOs shall deliver the day-ahead individual grid model (hereafter referred to as "D-1 IGM") covering all market time units of the next day.
 - b. Nordic RSC shall check the consistency of the D-1 IGM provided by each TSO. In case of detected issues with D-1 IGM provided by a TSO, Nordic RSC shall contact the concerned TSOs to solve the issue. If necessary, the concerned TSOs shall provide an update of the D-1 IGM in accordance with Article 8 of this Proposal.
 - c. Nordic RSC shall merge the D-1 IGMs to the Nordic D-1 CGM and shall provide the Nordic D-1 CGM before T1(D-1) to all TSOs.
 - d. At latest by T1(D-1), Nordic RSC shall perform the day-ahead regional operational security assessment on the Nordic D-1 CGM.
 - e. At latest by T2(D-1), Nordic RSC shall deliver the results of the day-ahead regional operational security assessment to all TSOs.
 - f. In case of detected violations of operational security limits, at latest by T2(D-1) Nordic RSC shall recommend to the concerned TSOs an appropriate remedial action provided by the TSOs in accordance with Article 14 of this Proposal. Such recommendation for remedial actions shall be accompanied by an explanation to the concerned TSOs.

- g. Nordic RSC may also recommend remedial actions other than those provided by the TSOs in accordance with paragraph 4 of Article 16 of this Proposal.
- h. When Nordic RSC is not able to propose to the concerned TSOs an appropriate remedial action to relieve the violations of operational security limits, Nordic RSC shall attempt to determine a remedial action in coordination with concerned TSOs. Nordic RSC may also coordinate with RSCs of adjacent CCRs in accordance with Article 18 of this Proposal in order to find and recommend a remedial action. Nordic RSC shall inform the concerned TSOs about the results of such inter-RSC coordination.
- i. The concerned TSO shall evaluate the proposed remedial action recommended by the Nordic RSC. When the concerned TSO accepts the proposed remedial action, the respective remedial action shall be included in the TSO's update of the D-1 IGM in accordance with Article 8 (2a) of this Proposal. When the concerned TSO rejects the recommended remedial action the TSO shall provide an explanation for this decision to Nordic RSC and the other affected TSOs and propose a more effective and efficient remedial action or any other appropriate solution to solve the violations of operational security limits.
- j. Nordic RSC shall prepare a preliminary day-ahead report as a result of the initial day-ahead regional operational security coordination process and submit it to all TSOs. Each TSO shall confirm the agreed remedial actions in the day-ahead report.
- k. Before T3(D-1), all TSOs shall deliver updated D-1 IGMs with remedial actions agreed during the initial day-ahead coordinated regional operational security assessment.
- At latest by T3(D-1), Nordic RSC shall begin to merge the updated D-1 IGMs including agreed remedial actions to the updated Nordic D-1 CGM and shall provide the updated Nordic D-1 CGM before T4(D-1) to all TSOs. In case of detected issues with updated D-1 IGM provided by a TSO, Nordic RSC shall contact the concerned TSO to resolve the issue. If necessary, the concerned TSO shall provide an update of the D-1 IGM to Nordic RSC in accordance with Article 8 of this Proposal.
- m. At latest by T4(D-1), Nordic RSC shall perform, if necessary, an update of the day-ahead regional operational security assessment using the updated Nordic D-1 CGM.
- n. At latest by T5(D-1), Nordic RSC shall organize a videoconference where the results of the regional operational security coordination process shall be shared and discussed. During this session, TSOs and Nordic RSC shall consolidate the final outcomes of the day-ahead regional operational security coordination process. Nordic RSC shall prepare the final day-ahead report as a result of the day-ahead regional operational security coordination process and submit it to all TSOs.
- o. Each TSO shall include the agreed remedial actions in its ID IGM in accordance with Article 8 (2a) of this Proposal for the subsequent intraday regional operational security coordination process.
- 2. If necessary, all TSOs and Nordic RSC shall perform additional runs of the day-ahead regional operational security coordination process after T5(D-1) applying the process steps in accordance with paragraph 1 of Article 5 of this Proposal.
- 3. All TSOs and Nordic RSC shall take the final results and agreed remedial actions of the day-ahead regional operational security coordination process into account in the intraday regional operational security coordination process. Where violations of operational security limits remain unresolved at the end of the day-ahead regional operational security coordination process, the concerned TSOs and Nordic RSC shall agree on the objectives and the required steps to follow in intraday regional

operational security coordination process in order to coordinate the management of these remaining violations of operational security limits.

Chapter 3

Intraday regional operational security coordination processes

Article 6

Interim intraday regional operational security coordination process

- 1. All TSOs and Nordic RSC shall perform the interim intraday regional operational security coordination process at the following obligatory hours in intraday timeframe:
 - a. First interim intraday process starting at T0(iID-ROSCP1) = 23:15 (CET), (hereafter referred to as "iID-ROSCP1")
 - b. Second interim intraday process starting at T0(iID-ROSCP2) = 07:15 (CET), hereafter referred to as "iID-ROSCP2")
 - c. Third interim intraday process starting at T0(iID-ROSCP3) = 15:15 (CET), (hereafter referred to as "iID-ROSCP3")
- 2. Unless otherwise agreed upon by all TSOs and Nordic RSC the following market time units shall be analysed during the interim intraday regional operational security coordination process:
 - a. in iID-ROSCP1 the market time units between 00:00 (CET) and 08:00 (CET);
 - b. in iID-ROSCP2 the market time units between 08:00 (CET) and 16:00 (CET);
 - c. in iID-ROSCP3 the market time units between 16:00 (CET) and 24:00 (CET);
- 3. All TSOs and Nordic RSC may perform optional interim intraday regional operational security coordination processes when one or several of the following conditions are met:
 - a. Outage of a relevant asset
 - b. Significant change of forecasted generation or load
 - c. Significant changes in physical flows
 - d. Congestions on CNEs
 - e. Violation of operational security limits
 - f. Small amount of remaining cross-zonal intraday capacity
 - g. Upon request by a TSO
- 4. When performing an optional interim intraday regional operational security coordination process in accordance with paragraph 3 of Article 6 of this Proposal, all TSOs and Nordic RSC shall agree on the market time units to be analysed.
- 5. All TSOs and Nordic RSC shall apply the following intraday regional operational security coordination process, where the respective hours (T0(iID-ROSCP1), T1(iID-ROSCP1), etc.) are defined in accordance with Article 28 of this Proposal:
 - a. At latest by T0(iID-ROSCP1) / T0(iID-ROSCP2) / T0(iID-ROSCP3), all TSOs shall deliver the intraday individual grid model (hereafter referred to as "**ID IGM**") covering all market time units in accordance with paragraph 2 of Article 6 of this Proposal.
 - b. Nordic RSC shall check the consistency of the ID IGM provided by each TSO. In case of detected issues with ID IGM provided by a TSO, Nordic RSC shall contact the concerned TSO to solve the issue. If necessary, the concerned TSO shall provide an update of the ID IGM in accordance with Article 8 of this Proposal.

- c. Nordic RSC shall merge the ID IGMs to the Nordic ID CGM and shall provide the Nordic ID CGM before T1(iID-ROSCP1) / T1(iID-ROSCP2) / T1(iID-ROSCP3) to all TSOs.
- d. At latest by T1(iID-ROSCP1) / T1(iID-ROSCP2) / T1(iID-ROSCP3), Nordic RSC shall perform the intraday regional operational security assessment on the Nordic ID CGM.
- e. At latest by T2(iID-ROSCP1) / T2(iID-ROSCP2) / T2(iID-ROSCP3), Nordic RSC shall deliver the results of the intraday regional operational security assessment to all TSOs.
- f. In case of detected violations of operational security limits, at latest by T2(iID-ROSCP1) / T2(iID-ROSCP2) / T2(iID-ROSCP3) Nordic RSC shall recommend to the concerned TSOs an appropriate remedial action provided by the TSOs in accordance with Article 14 of this Proposal. Such recommendation for remedial actions shall be accompanied by an explanation to the concerned TSOs.
- g. Nordic RSC may also recommend remedial actions other than those provided by the TSOs in accordance with paragraph 4 of Article 16 of this Proposal.
- h. When Nordic RSC is not able to propose to the concerned TSOs an appropriate remedial action to remove the violations of operational security limits, Nordic RSC shall attempt to determine a remedial action in close coordination with concerned TSOs. Nordic RSC may also coordinate with RSCs of adjacent CCRs in accordance with Article 18 of this Proposal in order to find and recommend a remedial action. Nordic RSC shall inform the concerned TSOs about the results of such RSC-RSC coordination.
- i. The concerned TSO shall evaluate the proposed remedial action recommended by the Nordic RSC. When the concerned TSO accepts the proposed remedial action, the respective remedial action shall be included in the TSO's update of the ID IGM in accordance with Article 8 (2a) of this Proposal. When the concerned TSO rejects the recommended remedial action the TSO shall provide an explanation for this decision to Nordic RSC and the other affected TSOs and propose a more effective and efficient remedial action or any other appropriate solution to solve the violations of operational security limits.
- j. Nordic RSC shall prepare a preliminary intraday report as a result of the initial intraday regional operational security coordination process and submit it to all TSOs. Each TSO shall confirm the agreed remedial actions in the intraday report.
- k. Before T3(iID-ROSCP1) / T3(iID-ROSCP2) / T3(iID-ROSCP3), all TSOs shall deliver, if necessary, updated ID IGM with remedial actions agreed during the initial intraday regional operational security assessment.
- At latest by T3(iID-ROSCP1) / T3(iID-ROSCP2) / T3(iID-ROSCP3), Nordic RSC shall begin to merge, if necessary, the updated ID IGM including agreed remedial actions to the updated Nordic ID CGM and shall provide, if necessary, updated Nordic ID CGM before T4(iID-ROSCP1) / T4(iID-ROSCP2) / T4(iID-ROSCP3) to all TSOs. In case of detected issues with updated ID IGM provided by a TSO, Nordic RSC shall contact the concerned TSO to resolve the issue. If necessary, the concerned TSO shall provide an update of the ID IGM to Nordic RSC in accordance with Article 8 of this Proposal.
- m. At latest by T4(iID-ROSCP1) / T4(iID-ROSCP2) / T4(iID-ROSCP3), Nordic RSC shall perform, if necessary, an update of the intraday regional operational security assessment using the updated Nordic ID CGM.
- n. At latest by T5(iID-ROSCP1) / T5(iID-ROSCP2) / T5(iID-ROSCP3), Nordic RSC shall organize, if necessary, a videoconference, where the results of the intraday regional operational security coordination process shall be shared and discussed. During this session, TSOs and Nordic RSC shall consolidate the final outcomes of the intraday regional

operational security coordination process. Nordic RSC shall prepare the final intraday report as a result of the intraday regional operational security coordination process and submit it to all TSOs.

- o. Each TSO shall include the agreed remedial actions in its ID IGM in accordance with Article 8 (2a) of this Proposal for the next intraday regional operational security coordination process.
- 6. If necessary, all TSOs and Nordic RSC shall perform additional runs of the intraday regional operational security coordination process after T5(iID-ROSCP1) / T5(iID-ROSCP2) / T5(iID-ROSCP3) applying the process steps in accordance with paragraph 5 of Article 6 of this Proposal.
- 7. All TSOs shall take the final results and agreed remedial actions of the intraday regional operational security coordination process into account in real-time operation. Where security violations remain unresolved at the end of each intraday regional operational security process, the concerned TSOs shall agree on the necessary actions in real-time operation in order to coordinate the management of these remaining violations of operational security limits.

Article 7

Enduring intraday regional operational security coordination process

- 1. All TSOs and Nordic RSC shall perform the enduring intraday regional operational security coordination process at least three times in intraday.
- 2. Nordic RSC shall perform a coordinated regional operational security assessment at each market time unit in intraday timeframe for all remaining market time units of the day.
- 3. All TSOs and Nordic RSC shall apply the following intraday regional operational security coordination process, where the respective hours (T0(eID-ROSCP), T1(eID-ROSCP), etc.) are defined in accordance with Article 29 of this Proposal:
- 8. All TSOs and RSC shall apply the following enduring intraday coordinated operational security assessment process:
 - a. At latest by T0(eID-ROSCP), all TSOs shall deliver the intraday individual grid model covering all market time units in accordance with paragraph 2 of Article 7 of this Proposal.
 - b. Nordic RSC shall check the consistency of the ID IGM provided by each TSO. In case of detected issues with ID IGM provided by a TSO, Nordic RSC shall contact the concerned TSO to solve the issue. If necessary, the concerned TSO shall provide an update of the ID IGM in accordance with Article 8 of this Proposal.
 - c. Nordic RSC shall merge the ID IGMs to the Nordic ID CGM and shall provide the Nordic ID CGM before hour T1(eID-ROSCP) to all TSOs.
 - d. At latest by T1(eID-ROSCP), Nordic RSC shall perform the intraday regional operational security assessment on the Nordic ID CGM.
 - e. At latest by T2(eID-ROSCP), Nordic RSC shall deliver the results of the intraday regional operational security assessment to all TSOs.
 - f. In case of detected violations of operational security limits, at latest by T2(eID-ROSCP) Nordic RSC shall recommend to the concerned TSOs an appropriate remedial action provided by the TSOs in accordance with Article 14 of this Proposal. Such

recommendation for remedial actions shall be accompanied by an explanation to the concerned TSOs.

- g. Nordic RSC may also recommend remedial actions other than those provided by the TSOs in accordance with paragraph 4 of Article 16 of this Proposal.
- h. When Nordic RSC is not able to propose to the concerned TSOs an appropriate remedial action to remove the violations of operational security limits, Nordic RSC shall attempt to determine a remedial action in coordination with concerned TSOs. Nordic RSC may also coordinate with RSCs of adjacent CCRs in accordance with Article 18 of this Proposal in order to find and recommend a remedial action. Nordic RSC shall inform the concerned TSOs about the results of such RSC-RSC coordination.
- i. The concerned TSO shall evaluate the proposed remedial action recommended by the Nordic RSC. When the concerned TSO accepts the proposed remedial action, the respective remedial action shall be included in the TSO's update of the ID IGM in accordance with Article 8 (2a) of this Proposal. When the concerned TSO rejects the recommended remedial action the TSO shall provide an explanation for this decision to Nordic RSC and the other affected TSOs and propose a more effective and efficient remedial action or any other appropriate solution to solve the violations of operational security limits.
- j. Nordic RSC shall prepare a preliminary intraday report as a result of the initial intraday regional operational security coordination process and submit it to all TSOs. Each TSO shall confirm the agreed remedial actions in the intraday report.
- k. Before hour T3(eID-ROSCP), all TSOs shall deliver, if necessary, updated ID IGM with remedial actions agreed during the initial intraday coordinated regional operational security assessment.
- At latest by T3(eID-ROSCP), Nordic RSC shall begin to merge, if necessary the updated ID IGM including agreed remedial actions to the updated Nordic ID CGM and shall provide, if necessary, updated Nordic ID CGM before T4(eID-ROSCP) to all TSOs. In case of detected issues with updated ID IGM provided by a TSO, Nordic RSC shall contact this concerned TSO to solve the issue. If necessary, concerned TSO shall provide an update of the ID IGM to Nordic RSC in accordance with Article 8 of this Proposal.
- m. At latest by T4(eID-ROSCP), Nordic RSC shall perform, if necessary, an update of the intraday regional operational security assessment using the updated Nordic ID CGM.
- n. At latest by T5(eID-ROSCP), Nordic RSC shall organize, if necessary, a videoconference, where the results of the intraday regional operational security coordination process shall be shared and discussed. During this session, TSOs and Nordic RSC shall consolidate the final outcomes of the intraday regional operational security coordination process. Nordic RSC shall prepare the final intraday report as a result of the intraday regional operational security coordination process and submit it to all TSOs.
- o. Each TSO shall include the agreed remedial actions in its ID IGM in accordance with Article 8 (2a) of this Proposal for the next intraday regional operational security coordination process.
- 4. All TSOs shall take the final results and agreed remedial actions of the intraday regional operational security coordination process into account in real-time operation. Where security violations remain not solved at the end of each intraday regional operational security coordination process, the concerned TSOs shall agree on the necessary actions in real-time operation in order to coordinate the management of these remaining violations of operational security limits.

Chapter 4

Updates to the individual and common grid model

Article 8

Preparation and updates of individual grid models by TSOs

- 1. Each TSO shall prepare day-ahead and intraday individual grid models for day-ahead and intraday regional operational security coordination process.
- 2. Each TSO shall include in its day-ahead and intraday individual grid models:
 - a. any cross-border impacting remedial actions already agreed as a result of previous regional operational security coordination processes;
 - b. any cross-CRR impacting remedial actions already agreed as a result of previous regional operational security coordination processes;
 - c. any planned outage of relevant assets already agreed as a result of previous outage planning coordination;
 - d. any unplanned or forced outages or changes of outage schedules of relevant assets.
- 3. Each TSO may include any non-cross-border impacting remedial actions in the individual grid models.
- 4. Each TSO shall deliver the individual grid models for the day-ahead and intraday regional operational security coordination processes.
- 5. If necessary, each TSO shall update the individual grid models during regional operational security coordination processes.

Article 9

Update of Nordic common grid model by Nordic RSC

- 1. Nordic RSC shall check during day-ahead and intraday regional operational security coordination process the consistency of the individual grid models provided by each TSO. In case of detected issues with individual grid models provided by a TSO, Nordic RSC shall contact the concerned TSO to resolve the issue. If necessary, the concerned TSO shall provide an update of the individual grid model in accordance with Article 8 of this Proposal.
- 2. Nordic RSC shall merge the updated individual grid models to the updated Nordic common grid model.
- 3. If a TSO is not able to provide an individual grid model or an update of the individual grid model for the day-ahead and intraday regional operational security coordination process in due time, Nordic RSC shall apply the substitution rules for individual grid models in accordance with the document "All TSOs' proposal for a common grid model methodology in accordance with Articles 67(1) and 70(1) of Commission Regulation (EU) 2017/1485 of 02 August 2017 establishing a guideline on electricity transmission system operation" (hereafter referred to as "CGM Methodology"). Nordic RSC shall take topology changes such as planned outages into account when substituting individual grid models. Nordic RSC shall update the Nordic common grid model during the day-ahead and intraday regional operational security coordination processes.

Article 10

Monitoring of inclusion of agreed remedial actions in the individual grid models

- 1. Nordic RSC shall monitor during the day-ahead regional operational security coordination process the inclusion of the agreed remedial actions in D-1 IGM.
- 2. Nordic RSC shall monitor during the intraday regional operational security coordination process the inclusion of the agreed remedial actions in ID IGM.
- 3. When Nordic RSC identifies that a previously agreed remedial action has not been included by a TSO in the individual grid model, Nordic RSC shall contact the concerned TSO. The concerned TSO shall correct its individual grid model and provide an update of the individual grid model in accordance with Article 8 of this Proposal.

Chapter 5

Definition of and exchanging information on constraints and contingencies

Article 11

Definition of and exchanging information on constraints

- 1. Each TSO shall define the grid elements for which operational security violations shall be monitored during the day-ahead and intraday regional operational security processes (hereafter referred to as "**Monitored Elements**"). The Monitored Elements shall include at least the CNEs.
- 2. All TSOs shall regularly update the Monitored Elements and shall perform a full assessment of the Monitored Elements, when necessary.
- 3. Each TSO shall provide the Monitored Elements to Nordic RSC. Each TSO shall inform Nordic RSC about any update of the Monitored Elements.
- 4. Nordic RSC shall consider the Monitored Elements of all TSOs in day-ahead and intraday regional operational security assessment.
- 5. Nordic RSC shall evaluate the Monitored Elements and may recommend to TSOs other grid elements for which operational security violations should be monitored during the regional operational security process.

Article 12

Definition of and exchanging information on contingencies

- 1. Each TSO shall define the contingencies to be simulated in the day-ahead and intraday regional operational security coordination processes (hereafter referred to as "**Contingency List**") in accordance with Article 33 of SO GL.
- 2. Each TSO shall regularly update its Contingency List and shall perform a full assessment of the list, when necessary.
- 3. Each TSO shall inform the TSOs in its observability area about the external contingencies included in its Contingency List.

- 4. Each TSO shall provide the Contingency List to Nordic RSC. Each TSO shall inform Nordic RSC about any update of the Contingency List.
- 5. Nordic RSC shall consider the Contingency Lists of all TSOs in the day-ahead and intraday regional operational security coordination processes.
- 6. Nordic RSC shall evaluate the Contingency Lists and may recommend to TSOs other contingencies to be applied during the regional operational security coordination process.

Chapter 6

Determination, preparation, coordination and activation of cross-border impacting remedial actions

Article 13

Determination of cross-border impacting remedial actions

- 1. When determining cross-border impacting remedial actions based on influence factors all TSOs shall agree on using either a qualitative or a quantitative approach or a combination of them:
 - a. in case of a qualitative assessment all TSOs shall consider remedial actions as cross-border impacting when the remedial action influence factor is higher than 5% or higher than an agreed value or threshold;
 - b. in case of a quantitative assessment of the cross-border impact of a remedial action, all TSOs shall define a commonly agreed threshold value for the remedial action influence factor other than the factor applied in accordance with paragraph 1a of Article 13 of this Proposal.
- 2. All TSOs shall inform Nordic RSC without undue delay about the selected threshold values in accordance with paragraph 1a of Article 13 of this Proposal.
- 3. In case of a combined qualitative and quantitative approach, all TSOs shall define the cases where a respective combined approach for determining cross-border impacting remedial actions shall be applied.
- 4. Each TSO shall consider cross-border impacting remedial actions for which the remedial action influence factor is higher than the commonly defined threshold value, in day-ahead and intraday regional operational security coordination.
- 5. In case of a quantitative assessment of the cross-border impact of a remedial action based on change of voltage, all TSOs shall agree on the list of nodes where such assessment will take place.
- 6. All TSOs in coordination with Nordic RSC shall jointly determine which violations of operational security limits and remedial actions are deemed cross-border impacting and the corresponding TSOs affected by those remedial actions.
- 7. All TSOs in coordination with Nordic RSC shall jointly determine violations of operational security limits and remedial actions are deemed cross-CCR impacting and the corresponding TSOs and RSCs affected by those remedial actions.
- 8. Each TSO shall inform the Nordic RSC about the determined cross-border impacting violations of operational security limits and remedial actions.

Article 14

Exchanging information on cross-border impacting remedial actions

- 1. Each TSO shall exchange with concerned TSOs and Nordic RSC relevant information on remedial actions that are deemed cross-border impacting for the purpose of day-ahead and intraday regional operational security coordination process.
- 2. When providing to Nordic RSC the information of possible remedial actions, each TSO shall consider as available the remedial actions which were available for the previously performed coordinated regional operational security assessments of the same MTU, except if
 - a. an unforeseen event has made a remedial action unavailable, or
 - b. the remedial action has become technically unavailable, or
 - c. a new and more effective and efficient remedial action has become available.
- 3. If necessary, each TSO shall update the information of remedial actions prior to the start of the dayahead and intraday regional operational security coordination processes.
- 4. Each TSO shall inform the other TSOs and Nordic RSC in due time about unavailable remedial actions for the coordination processes.
- 5. Each TSO shall inform Nordic RSC whether a remedial action provided to Nordic RSC is offered simultaneously to RSCs of adjacent CCRs.

Article 15

Preparation and coordination of cross-border impacting remedial actions

- 1. In case of a detected violation of operational security limits, Nordic RSC shall recommend to the concerned TSOs an appropriate remedial action provided by the TSOs in accordance with Article 14 of this Proposal. Nordic RSC may also recommend remedial actions other than those provided by the TSOs. Such recommendation for remedial actions shall be accompanied by an explanation to, and validation by the concerned TSOs.
- 2. Each TSO shall assess that he recommended remedial actions meet the following conditions:
 - a. the remedial action is considered available for the specific MTU in a consistent manner from the time frame of its decision in the coordination process up to all the subsequent timeframes of security analyses including real time;
 - b. the remedial actions relieve all congestions on the affected grid elements;
 - c. the remedial action is not setting the affected TSO's grid in a warning or alert state based on the common grid model used in the coordination process;
 - d. the remedial action is not leading to any violations of operational security limits in the affected TSO's grid after the simulation of the corresponding contingency based on the common grid model used in the coordination process;
 - e. the remedial action is considered the most effective and economically efficient remedial action to relieve the congestion.
- 3. When the concerned TSO accepts the proposed remedial action, the respective remedial action shall be included in the TSO's update of the individual grid model in accordance with Article 8 of this Proposal.

- 4. When the concerned TSO rejects the recommended remedial action the TSO shall provide an explanation for this decision to Nordic RSC and the other affected TSOs and propose a more effective and efficient remedial action or any other appropriate solution to solve the violations of operational security limits.
- 5. When Nordic RSC is not able to propose to the concerned TSOs an appropriate remedial action to relieve the violations of operational security limits, Nordic RSC shall determine an effective and efficient remedial action in close coordination with concerned TSOs.
- 6. If necessary, Nordic RSC shall exchange the results of the regional operational security coordination process with relevant RSCs of adjacent CCRs for the purpose of cross-CCR impact assessment. Nordic RSC shall coordinate with RSCs of adjacent CCRs in order to find and recommend remedial actions. Nordic RSC shall inform the all TSOs about the results of such cross-CCR coordination.

Article 16

Identification of most effective and economically efficient cross-border impacting remedial actions

- 1. When exchanging information on remedial actions to Nordic RSC in accordance with Article 14 of this Proposal, each TSO shall provide relevant information on technical effectiveness and expected cost level of the remedial action.
- 2. Nordic RSC shall assess the technical effectiveness and economic efficiency of the remedial actions provided by the TSOs.
- 3. In day-ahead and intraday regional operational security coordination process, Nordic RSC shall define a list of the most effective and economically efficient remedial actions and share it with the TSOs.
- 4. If necessary, Nordic RSC shall assess in coordination with the TSOs the technical effectiveness and economic efficiency of a new remedial action prior to the implementation in a day-ahead and intraday regional operational security coordination process.

Article 17

Activation of cross-border impacting remedial actions

- 1. Each TSO shall activate the cross-border impacting remedial actions agreed in day-ahead and intraday regional operational security coordination processes in due time.
- 2. Where security violations remain not solved at the end of each coordination process, the concerned TSOs shall agree on the necessary remedial actions in real-time operation in order to coordinate the management of these remaining violations of operational security limits.
- 3. If an agreed remedial action becomes unnecessary, the concerned TSO can decline an activation of a remedial action or can deactivate an already activated remedial action. The concerned TSO shall ensure that declining an activation respectively the deactivation of the remedial action is not deemed cross-border impacting and does not affect other TSOs. The concerned TSO shall provide an explanation for this decision to Nordic RSC and the other TSOs.

Article 18

Coordination of cross-CCR impacting remedial actions with adjacent CCRs

- 1. Nordic RSC shall coordinate with RSCs of adjacent CCRs when day-ahead or intraday regional operational security coordination processes in accordance with Articles 5, 6 and 7 have identified the need for cross-CCR impacting remedial actions between CCR Nordic and adjacent CCRs.
- 2. Nordic RSC shall exchange all relevant results of the regional operational security coordination process within CCR Nordic with RSCs of adjacent CCRs in order to coordinate cross-CCR impacting remedial actions between CCR Nordic and adjacent CCRs.
- 3. Nordic RSC shall inform all TSOs about the results of the coordination with RSCs of adjacent CCRs on respective cross-CCR impacting remedial actions.
- 4. Nordic RSC shall define the cross-CCR Monitored Elements, cross-CRR Contingencies and cross-CCR impacting remedial actions in cooperation with all TSOs as well as TSOs and RSCs of adjacent CCRs.

Chapter 7

Sharing of costs of remedial actions

Article 19

General provisions for sharing of the costs for activation of cross-border impacting remedial actions within CCR Nordic in real-time operation

- 1. The principals for sharing the costs of cross-border impacting remedial actions complement, where necessary, the common Nordic methodology for coordinated redispatching and countertrading cost sharing (CRCCS Methodology).
- 2. The cost sharing principles shall be applied on cross-border impacting remedial actions agreed in day-ahead and intraday regional operational security coordination process which are activated in real-time operation to relieve violations of operational security limits.
- 3. The price for the activated remedial actions used when calculating the cost to be shared between TSOs shall be the actual bid prices paid by the TSO on the market where the bids are activated.

Article 20a

Cost sharing principles for activation of cross-border impacting remedial actions within CCR Nordic in real-time operation

- 1. The cost sharing principles for cross-border impacting remedial actions agreed in the day-ahead and intraday regional operational security coordination processes and activated in real-time operation shall apply to the following situations:
 - a. Cross-border impacting remedial actions to relieve violations of operational security limits on cross-border grid elements located in control areas of TSOs in CCR Nordic.
- 2. Costs and income incurred by activation of cross-border impacting remedial actions in accordance with paragraph 1(a) of Article 20a of this Proposal shall be shared equally between those TSOs in

CCR Nordic in whose control areas the operational security limits violation of the cross-border grid element was relieved.

3. Costs and income incurred by activation of non-cross-border impacting remedial actions within CCR Nordic shall be borne by those TSO in whose control area the violations of operational security limits of the grid element was relieved.

Article 20b

Cost sharing principles for activation of cross-CCR impacting remedial actions in real-time operation

- 1. The cost sharing principles for cross-CRR impacting remedial actions agreed in the day-ahead and intraday regional operational security coordination processes and activated in real-time operation shall apply to the following situations:
 - a. Cross-CCR impacting remedial actions to relieve operational security limits violation on cross-border grid elements located between a control area of a TSO in CCR Nordic and a control area of a TSO in adjacent CCR.
 - b. Cross-CCR impacting remedial actions to relieve operational security limits violation on grid elements located in control areas of TSOs in adjacent CCR.
- 2. TSOs of CCR Nordic and TSOs of adjacent CCRs shall define in separate agreements cost sharing principles for costs and income incurred by activation of cross-CCR impacting remedial actions in accordance with paragraph 1(a) and 1(b).

Article 21

Monitoring of activation of remedial actions in real-time operation

1. For monitoring purposes, TSOs shall collect data on activation of remedial actions and publish related information on ENTSO-E Transparency platform according to Article 13 of Commission Regulation (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets.

Title 3

Organisation for Nordic regional operational security coordination

Chapter 1

Common provisions concerning the organisation of regional operational security coordination

Article 22

Appointment of the regional security coordinator in CCR Nordic

1. All TSOs of CCR Nordic appoint Nordic RSC as regional security coordinator of CCR Nordic that will perform tasks set forth in Article 24 of this Proposal.

Article 23

General rules concerning the governance and operation of regional security coordinator

- 1. Nordic RSC shall be a service provider for all TSOs in CCR Nordic. Nordic RSC shall perform the tasks delegated to it by the Nordic TSOs set forth in Article 24 of this Proposal.
- 2. Nordic RSC shall
 - a. provide to all TSOs of CCR Nordic coordination services for the secure and efficient operation of the Nordic transmission system;
 - b. build consistent regional data;
 - c. perform regional operational assessments and analyses;
 - d. make recommendations to all TSOs (such as remedial actions); and
 - e. support the harmonisation of operational procedures and standards helping all TSOs to maintain security of supply.
- 3. The security of supply will remain the responsibility of each individual TSO according to national laws and regulations. The responsibility for secure system operation and any decision taken based on services from the Nordic RSC shall remain with the TSOs.
- 4. For the avoidance of doubt, these rules do not replace any provision of national or European law that may apply to any of the TSOs. The provisions of these rules shall be complementary and interpreted in accordance with the applicable regulations. In case of contradictions between these rules and the applicable laws and regulations, the provisions of these rules shall be amended accordingly.
- 5. All TSOs with services delegated to Nordic RSC shall enter into an agreement to define specific rules concerning the governance and operation of the regional security coordinator Nordic RSC.

Chapter 2

Tasks of regional security coordinator

Article 24

Delegation of tasks to regional security coordinator

- 1. All TSOs shall agree on delegation of tasks and responsibilities to Nordic RSC related to TSO regional coordination in CCR Nordic.
- 2. In accordance with Article 77(3) of SO GL all TSOs delegate the following tasks to Nordic RSC related to TSO regional coordination in CCR Nordic:
 - a. regional operational security coordination;
 - b. building of common grid model;
 - c. regional outage coordination;

- d. regional adequacy assessment coordination.
- 3. All TSOs delegate specific tasks to Nordic RSC related to regional operational security coordination in CCR Nordic as set forth in this Proposal.
- 4. All TSOs delegate the following specific tasks to Nordic RSC related to building the common grid models for CCR Nordic:
 - a. Assuring quality of individual and common grid model;
 - b. Performing pre-alignment service for predicting the upcoming operational situation;
 - c. Building common grid model;
 - d. Facilitating the respective coordination process amongst all TSOs;
 - e. Coordinating with other RSCs.
- 5. All TSOs delegate the following specific tasks to Nordic RSC related to regional outage coordination within CCR Nordic:
 - a. Detecting and analysing of outage planning incompatibilities;
 - b. Proposing solutions for resolving outage planning incompatibilities;
 - c. Preparing an annual report on outage planning incompatibilities;
 - d. Facilitating the regional outage planning coordination process;
 - e. Coordinating with other RSCs.
- 6. All TSOs delegate the following specific tasks to Nordic RSC related to regional adequacy assessment coordination within CCR Nordic:
 - a. Performing cross-regional adequacy assessment;
 - b. Detecting absence of adequacy and proposing solutions to mitigate/solve adequacy issues;
 - c. Develop and provide reports on adequacy assessment results;
 - d. Facilitating regional adequacy assessment coordination process;
 - e. Coordinating with other RSCs.
- 7. All TSOs with services delegated to Nordic RSC shall, in close cooperation with Nordic RSC, develop operational procedures related to the tasks set forth in paragraphs 2, 3, 4, 5 and 6.

Article 25

Data provision for executing tasks by regional security coordinator

1. Each TSO with services delegated to Nordic RSC shall provide Nordic RSC with all relevant data and information to allow execution and coordination of the tasks set forth in Article 24, and the data provisions shall follow the prevailing CGM exchange standard (hereafter referred to as "CGMES").

Article 26

Coordination of tasks between regional security coordinator of CCR Nordic and RSCs of adjacent CCRs

Nordic RSC with services delegated by TSOs of CCR Nordic shall coordinate activities with RSCs of adjacent CCRs with regard to the delegated tasks set forth in Article 24.

Title 4

Definition of business process hours and assessment timeframes for day-ahead and intraday regional operational security coordination processes

Article 27

Definition of business process hours for day-ahead regional operational security coordination processes

- 1. Unless otherwise defined in accordance with paragraph 2 of Article 27 of this Proposal, the following default values shall apply:
 - a. T0(D-1) = 18:00 (CET)
 - b. T1(D-1) = 19:00 (CET)
 - c. T2(D-1) = 19:15 (CET)
 - d. T3(D-1) = 19:45 (CET)
 - e. T4(D-1) = 20:15 (CET)
 - f. T5(D-1) = 20:30 (CET)
- 2. By 3 months after the approval of this Proposal, all TSOs in coordination with Nordic RSC shall jointly define the hours T0 to T5 for day-ahead regional operational security coordination as defined in Article 5 of this Proposal.

Article 28

Definition of business process hours for interim intraday regional operational security coordination processes

- 1. Unless otherwise defined in accordance with paragraph 4 of Article 28 of this Proposal, the following default values shall apply for iID-ROSCP1:
 - a. T0(iID-ROSCP1) = 23:15 (CET)
 - b. T1(iID-ROSCP1) = 23:25 (CET)
 - c. T2(iID-ROSCP1) = 23:30 (CET)
 - d. T3(iID-ROSCP1) = 23:35 (CET)
 - e. T4(iID-ROSCP1) = 23:40 (CET)
 - f. T5(iID-ROSCP1) = 23:45 (CET)
- 2. Unless otherwise defined in accordance with paragraph 4 of Article 28 of this Proposal, the following default values shall apply for iID-ROSCP2:
 - a. T0(iID-ROSCP2) = 07:15 (CET)
 - b. T1(iID-ROSCP2) = 07:25 (CET)
 - c. T2(iID-ROSCP2) = 07:30 (CET)
 - d. T3(iID-ROSCP2) = 07:35 (CET)

- e. T4(iID-ROSCP2) = 07:40 (CET)
- f. T5(iID-ROSCP2) = 07:45 (CET)
- 3. Unless otherwise defined in accordance with paragraph 4 of Article 28 of this Proposal , the following default values shall apply for iID-ROSCPiID-ROSCP3:
 - a. T0(iID-ROSCP3) = 15:15 (CET)
 - b. T1(iID-ROSCP3) = 15:25 (CET)
 - c. T2(iID-ROSCP3) = 15:30 (CET)
 - d. T3(iID-ROSCP3) = 15:35 (CET)
 - e. T4(iID-ROSCP3) = 15:40 (CET)
 - f. T5(iID-ROSCP3) = 15:45 (CET)
- 4. At latest after 6 months of implementation of Article 6 of this Proposal in accordance with Article 32(2) of this Proposal, all TSOs in coordination with Nordic RSC shall jointly define the hours T0 to T5 for interim intraday regional operational security coordination as set forth in Article 6 of this Proposal.

Article 29

Definition of business process hours for enduring intraday regional operational security coordination processes

- 1. Unless otherwise defined in accordance with paragraph 1, the following default values shall apply for eID-ROSCP:
 - a. T0(eID-ROSCP) = Time of MTU (CET)
 - b. T1(eID-ROSCP) = Time of MTU + 10 minutes (CET)
 - c. T2(eID-ROSCP) = Time of MTU + 15 minutes (CET)
 - d. T3(eID-ROSCP) = Time of MTU + 20 minutes (CET)
 - e. T4(eID-ROSCP) = Time of MTU + 25 minutes (CET)
 - f. T5(eID-ROSCP) = Time of MTU + 30 minutes (CET)
- 2. At latest after 6 months of implementation of Article 7 of this Proposal in accordance with Article 32(3) of this Proposal, all TSOs in coordination with Nordic RSC shall jointly define the hours T0 to T5 for enduring intraday regional operational security coordination as set forth in Article 7 of this Proposal.

Article 30

Assessment of operational performance of day-ahead and intraday regional operational security coordination processes

1. All TSOs in coordination with Nordic RSC shall assess at least every three years the operational performance of day-ahead and intraday regional operational security coordination processes as defined in Articles 5, 6 and 7 of this Proposal.

2. The results of the first assessment shall be available not later than 24 months after approval of this Proposal.

Title 5

Impact Assessment and timescale for implementation

Article 31

Impact Assessment

1. The Proposal generally contributes to and does not in any way hamper the achievement of the objectives of Article 4 of SO GL. In particular, the Proposal serves the objectives to (1)(a) determining common operational security requirements and principles, 1(b) determining common interconnected system operational planning principles, (1)(d) ensuring the conditions for maintaining operational security throughout the Union (and Norway), (1)(f) promoting the coordination of system operation and operational planning, (1)(g) ensuring and enhancing the transparency and reliability of information on transmission system operation and (1)(h) contributing to the efficient operation and development of the electricity transmission system and electricity sector in the Union (and Norway). The Proposal contributes to these objectives by specifying common provisions for regional operational security coordination and the organisation of regional operational security coordination.

Article 32

Timescale for implementation

- 1. After approval of this Proposal, and unless differently stipulated in the previous articles or in the following paragraphs of this article, each TSO and Nordic RSC shall implement the requirements set forth in the Articles of this Proposal within 3 months after its approval.
- 2. All TSOs and Nordic RSC shall implement the requirements of Article 6 within 6 months after approval of this Proposal.
- 3. All TSOs and Nordic RSC shall implement the requirements of Article 7 at the earliest 18 months and at the latest 24 months after approval of this Proposal providing a stable and successful operation of interim intraday regional operational security coordination process for at least 12 months.

Title 6

Final provisions

Article 33

Publication of this Proposal

1. Upon approval of the present proposal each TSO shall publish it on the internet in accordance with Article 8(1) of SO GL.

Article 34

Language

1. The reference language for this Proposal shall be English. For the avoidance of doubt, where TSOs need to translate this Proposal into national language(s), in the event of inconsistencies between the English version published by TSOs in CCR Nordic in accordance with Article 8(1) of SO GL 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.