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BETREFT Voorstel Hansa TSO's voor gemeenschappelijke bepalingen ten aanzien van regionale coördinatie van operationele veiligheid op basis van art. 76 en 77 van Verordening (EU) 2017/1485 (GL SO)

Geachte heer Don,

Hierbij ontvangt u een voorstel van de gezamenlijke TSO's van de Hansa-regio voor gemeenschappelijke bepalingen ten aanzien van regionale coördinatie van operationele veiligheid. Het voorstel is gebaseerd op de artikelen 76 en 77 van de Verordening (EU) 2017/1485 van 2 augustus 2017 tot vaststelling van richtsnoeren betreffende het beheer van elektriciteitstransmissiesystemen (op basis van de Engelse titel afgekort als: GL SO). Het betreft:

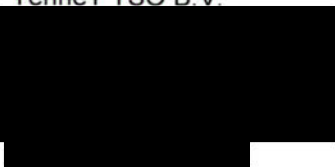
"Capacity Calculation Region Hansa TSOs' methodology for common provisions for regional operational security coordination in accordance with Articles 76 and 77 of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation" d.d. 20 december 2019

Ter toelichting is bij dit voorstel een Explanatory Document gevoegd.

Het voorstel bevat geen vertrouwelijke gegevens en kan integraal door u gepubliceerd worden.

U wordt verzocht het bijgevoegde voorstel goed te keuren krachtens artikel 6, eerste lid, van de GL SO.

Hoogachtend,
TenneT TSO B.V.



Senior Manager Regulation NL

**Capacity Calculation Region Hansa TSOs' methodology for
common provisions for regional 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.**

20 December 2019

Whereas

- (1) This document is a common methodology for the TSOs of Capacity Calculation Region (hereafter referred to as "CCR") Hansa as described in the methodology pursuant to Article 15 of Commission Regulation (EC) 2015/1222 establishing a guideline on capacity allocation and congestion management (hereafter referred to as "CACM Regulation").
- (2) This document is the common methodology of CCR Hansa for Regional Operational Security Coordination (hereafter referred to as "Hansa ROSC") in accordance with Articles 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 the "SO Regulation").
- (3) This methodology takes into account the general principles and goals set in the SO Regulation as well as CACM Regulation, and Commission 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").
- (4) The objective of the SO Regulation is to safeguard operational security, frequency quality level of all synchronous areas 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. Standardisation shall be achieved through a common methodology for coordinating operational security analysis.
- (5) Article 76(1) of the SO Regulation sets the requirements for the TSOs to jointly develop a methodology for common provisions for regional operational security coordination, to be applied by the regional security coordinators and the TSOs of the capacity calculation region. The methodology respects the methodologies for coordinating operational security analysis developed in accordance with Article 75 (hereafter referred to as "CSAM") and complements, where necessary, the methodologies developed in accordance with Article 35 of the CACM Regulation (hereafter referred to as "Hansa CRCM") and Article 74 of the CACM Regulation (hereafter referred to as "Hansa RCCSM").
- (6) This methodology ensures operational security in a fair and non-discriminatory treatment of TSOs. It ensures regional (Hansa) operational security coordination whereby Hansa RSCs are used as intermediary to facilitate regional coordination. This, in addition, ensures equal treatment of all TSOs participating in the regional operational security coordination of CCR Hansa.
- (7) 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 network elements identified are relieved using at least the remedial actions defined by TSOs;
 - b. each TSO affected by a cross-border impacting remedial action is informed about the operational security limits violations to be solved by these remedial actions.
- (8) CCR Hansa has appointed RSC Nordic and TSCNET Services GmbH (hereafter referred to as TSCNET) as RSCs for CCR Hansa. An advantage to this is that these two entities already oversee the adjacent AC grids for the TSOs in CCR Hansa. The Nordic RSC is foreseen to carry out operational security assessment for the TSOs of CCR Nordic control areas in the context of also being appointed RSC in these areas. TSCNET is foreseen to carry out operational security assessment for the TSOs of CCR Core in their control areas in the context of also being appointed RSC in these areas. This then entails taking the CCR Hansa bidding-zone borders into

account in the same operational security assessment and facilitate the exchange of remedial actions across the CCR Hansa bidding-zone borders.

- (9) The overall ambition of this methodology is to ensure operational security on the CCR Hansa bidding-zone borders. This shall be achieved through close cooperation with CCR Core and CCR Nordic. It is an ambition that the RSCs shall not carry out additional operational security assessment due to the existence of CCR Hansa. Rather the operational security assessment for CCR Hansa shall integrate with operational security assessment in CCR Core and CCR Nordic as in line with Article 75 of the SO Regulation. This is to improve the efficiency of the European electricity market and the efficient implementation of the Hansa ROSC.
- (10) Implementation of the Common Grid Model Methodology (hereafter referred to as "CGMM") is delayed and Swedish national security legislation requirements on information security currently hinder a common grid model where all Hansa RSC and TSOs are included. Due to this, Hansa CCR will implement two regional common grid models as an interim solution for Hansa ROSC. There will be a CCR Nordic grid model and a CCR Core grid model, and each of them will be in the format used in CCR Nordic and CCR Core respectively. When the conditions that enable the enduring solution are met, TSOs will implement the enduring solution which will also enable both RSCs to deliver each of the services to all TSOs of CCR Hansa.
- (11) According to Article 6(6) of the SO Regulation, this Methodology includes a timescale for its implementation and a description of its expected impact on the objectives of the SO Regulation.
- (12) The Methodology generally contributes to and does not in any way hamper the achievement of the objectives of Article 4 of the SO Regulation. The Methodology contributes to these objectives by specifying common provisions for regional operational security coordination and the organisation of regional operational security coordination.
- (13) The Methodology takes into account the possible dependencies with Commission Regulation (EU) 2017/2195 establishing a guideline on Electricity Balancing.

SUBMIT THE FOLLOWING ROSC METHODOLOGY TO ALL REGULATORY AUTHORITIES OF CCR HANSA:

TITLE 1

General provisions

Article 1.

Subject matter and scope

1. This methodology contains the common provisions for regional operational security coordination in accordance with Article 76 of the SO Regulation and the common provisions concerning the organisation of the regional operational security coordination in accordance with Article 77 of the SO Regulation. This is the joint methodology of all TSOs of CCR Hansa.
2. This Methodology is subject to National Regulatory Authority approval in accordance with Article 6(3)(b) of the SO Regulation.

Article 2.

Definitions and interpretation

For the purposes of this Methodology, the terms used shall have the meaning of the definitions included in Article 3 of the SO Regulation, Article 2 of the CACM Regulation, CSAM and the other items of legislation referenced therein. In addition, the following definitions shall apply:

1. 'critical network element' or 'CNE' means a network element as defined in Day-Ahead and Intraday Capacity Calculation Methodology of CCR Hansa in accordance with Article 20(2) of the CACM Regulation which is significantly impacted by cross-zonal trades, such as an overhead line, an underground cable or a transformer;
2. 'cross-border relevant network element' or 'XNE' means a network element identified as cross-border relevant in accordance with CSAM;
3. 'secured elements' are the network elements on which operational security violations have to be identified and managed in a coordinated way;
4. 'scanned elements' are the network elements on which the coordinated regional operational security assessment shall not create new operational security limit violations or worsen any existing violations;
5. 'DC Loop' is a remedial action used to relieve security-limit violations in AC networks by simultaneous change of scheduled exchanges on at least two HVDC links of the same amount of power in opposite directions. The aim of this remedial action is not to increase the capacities on the cross-border connections.
6. 'Temporal dependencies of remedial actions' means costs which are made to keep remedial actions available with a long lead time during a limited period of time where these remedial actions are not required, and other remedial actions to solve violations of operations security limits would lead to higher costs or would not bring a solution to the detected violation.

In this Methodology, the following terms shall have the meaning below:

7. 'RSC' means the Regional Security Coordinator(s) (RSC(s)) appointed for CCR Hansa, unless it is explicitly otherwise stated, according to Article 77(1)(a) of the SO Regulation that will perform the tasks allocated to this (these) RSC(s) according to Article 77(1)(c)(i) of the SO Regulation;

8. 'TSO' means the CCR Hansa TSO(s) unless it is explicitly otherwise stated.

In this Methodology, unless the context requires otherwise:

9. the singular indicates the plural and vice versa;
10. headings are inserted for convenience only and do not affect the interpretation of the methodology;
11. references to an "Article" are, unless otherwise stated, references to an Article of this Methodology, and;
12. 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

Organisation for CCR Hansa regional operational security coordination

Chapter 1

Common provisions concerning the organisation of regional operational security coordination

Article 3.

Appointment of the regional security coordinators in CCR Hansa

1. The CCR Hansa TSOs appoint Nordic RSC and TSCNET Services GmbH as regional security coordinators of CCR Hansa to perform tasks as set forth in Article 5 of this methodology in accordance with Article 77(1)(a) of SO the Regulation.

Article 4.

General rules concerning the governance and operation of the regional security coordinators

1. All parties shall enter into an agreement to define specific rules concerning the governance and operation of the regional security coordinators. Nordic RSC and TSCNET shall perform the tasks in a coordinated manner, as set forth in Article 4(2) of this methodology.
2. The appointed RSCs shall:
 - a. provide to TSOs of CCR Hansa coordination services for the secure and efficient operation of the Hansa interconnectors;
 - b. perform the coordinated regional operational security assessments (hereafter referred to as "CROSA");
 - c. make recommendations to TSOs in relation to the services they provide to the TSOs;
 - d. support the harmonisation of operational procedures and standards supporting TSOs to maintain security of supply.
 - e. treat TSOs in an equitable manner in the provision of services described in accordance with this methodology.

3. The responsibility for security of supply, secure system operation and any decision taken based on services from the Nordic RSC and TSCNET shall remain with the TSOs in line with national laws and regulations.
4. RSCs of CCR Hansa appointed in accordance with Article 3 shall coordinate the actions on each step of the processes referred to in Article 5, prior to the cross-CCR coordination in accordance with CSAM, to ensure consistent and efficient operation of the CCR Hansa region.
5. In accordance with Article 77(5) of the SO Regulation, the RSCs shall coordinate the execution of services in accordance with Article 5. They shall, to the extent possible, harmonise processes to avoid duplication and thereby ensure efficiency and continuity of services with RSCs of adjacent CCRs.
6. To achieve an effective coordination and decision-making process to resolve conflicting positions between RSCs;
 - a. RSCs shall try to resolve the conflicting positions via the coordination process of the CROSA process within CCR Hansa or adjacent CCRs, taking into account time limitations;
 - b. If RSCs are not able to resolve the conflicting positions, the relevant TSOs shall manage the issue keeping RSCs involved;

Chapter 2

Tasks of the regional security coordinators

Article 5.

Delegation of tasks to regional security coordinators

1. In accordance with Article 77(3)(a), (b), (c) and (d) of the SO Regulation, TSOs delegate the following tasks to the RSCs appointed in accordance with Article 3:
 - a. Regional operational security coordination in accordance with Article 78 of the SO Regulation and Article 6;
 - b. Building of common grid model in accordance with Article 79 SO of the Regulation and Article 7;
 - c. Regional outage coordination in accordance with Article 80 of the SO Regulation and Article 8;
 - d. Regional adequacy assessment in accordance with Article 81 of the SO Regulation and Article 9.

Article 6.

Regional operational security coordination for CCR Hansa

1. The two RSCs shall coordinate, where required, all the activities during the regional operational security analysis of the CCR Nordic and CCR Core to ensure operational security of CCR Hansa and the cross-CCR impact of the adjacent CCRs.
2. In accordance with Articles 77(2)(a) and 77(3)(a) of the SO Regulation, for the purpose of regional operational security coordination for CCR Hansa:

a. As interim solution:

- i. Nordic RSC shall conduct coordinated regional operational security assessment for TSOs that are also members of CCR Nordic, whereas
- ii. TSCNET shall conduct coordinated regional operational security assessment for the TSOs that are also members of CCR Core.
- iii. Nordic RSC and TSCNET shall coordinate between each other to ensure the coordinated regional operational security assessment for CCR Hansa.

b. Enduring solution:

- i. Nordic RSC and TSCNET shall jointly conduct coordinated regional operational security assessment in cooperation with adjacent RSCs.

Article 7.

Building a CGM

1. In accordance with Article 77(3)(b) of the SO Regulation, RSCs shall build a common grid model (hereafter referred to as CGM) in accordance with the methodology established pursuant to Articles 67(1) and 70(1) of the SO Regulation (hereafter referred to as "CGMM"). The RSCs shall utilise the CGM to carry out the tasks assigned to them.
2. Within ENTSO-E, TSOs will set up a consistent and harmonised approach at pan-European level to ensure that the solutions implemented to build CGMs and operated by RSCs will be compliant with the respective requirements set up in the relevant legislation in force, including SO Regulation (Article 79(5)), the CGMM and the CSAM, while ensuring reliability of the CGM delivery process and the aligned use of the resulting unique CGM.
3. TSOs shall supply the RSCs with information to achieve this in accordance with Article 14.
4. TSOs shall delegate the following specific tasks to the RSCs related to building a common grid model within CCR Hansa:
 - a. Assessing consistency and quality of IGMs (hereafter referred to as IGMs) provided by each Hansa TSO;
 - b. Assuring quality of the common grid model;
 - c. Building a common grid model in accordance with the provisions of article 79 of SO Regulation;
 - d. Coordination with the other RSC within CCR Hansa, and between other CCRs;
5. Nordic RSC and TSCNET shall merge the updated IGMs respectively as interim solution into the CCR Nordic and CCR Core CGMs in support of Article 6(1) of this methodology;
 - a. TSCNET shall utilise the IGMs of Hansa TSOs that are also members of CCR Core to build and include these in the CGM of the CCR Core
 - b. The Nordic RSC shall utilise the IGMs of Hansa TSOs that are also members of CCR Nordic to build and include these in the CGM of the CCR Nordic

- c. Energinet shall supply TSCNET with IGMs for DK1 in order for TSCNET to include the DK1 bidding zone in the observability areas of CCR Hansa and CCR Core as part of the CCR Core CROSA and CGM for the CCR Core.
- 6. The interim common grid model solution shall be used until all entities taking part in Hansa coordinated security analysis:
 - a. comply with information security requirements defined in national legislations;
 - b. fully implement CGMM.

Article 8.

Regional outage coordination for Hansa

1. In accordance with Articles 77(2)(a) and 77(3)(c) of the SO Regulation, Nordic RSC and TSCNET carry out the task for regional outage coordination. The regional process shall be aligned with the pan-European outage coordination.
2. Nordic RSC shall collect the outage plans from TSOs that are also members of CCR Nordic. TSCNET shall collect outage plans from TSOs that are also members of CCR Core.
3. For the regional outage coordination, the RSCs shall:
 - a. perform quality check of availability plan and provide feedback to TSOs on quality check outcome;
 - b. coordinate with RSCs of other CCRs appointed in application of Article 76 of the SO Regulation;
 - c. detect and solve regional outage incompatibilities by performing a security assessment and provide the TSOs of the outage coordination region with a list of detected outage planning incompatibilities and the proposed solutions to solve those outage planning incompatibilities.

Article 9.

Regional adequacy assessment coordination for Hansa

1. For regional adequacy assessment coordination, the RSCs carrying out this task for the bidding zones connected by the CCR Hansa bidding-zone borders shall take into account the capacity of the CCR Hansa bidding-zone borders, subject to any outages planned in accordance with Article 8.
2. In accordance with Articles 77(2)(a) and 77(3)(d) of the SO Regulation, for the task of regional adequacy assessment coordination, the Nordic RSC shall conduct regional adequacy assessment for TSOs that are also members of CCR Nordic. TSCNET shall conduct the regional adequacy assessment for the TSOs that are also members of CCR Core. The regional adequacy assessment coordination in CCR Hansa shall be aligned with the cross-regional adequacy assessment coordination process.
3. TSOs delegate the following specific tasks to the RSCs related to regional adequacy assessment coordination within CCR Hansa:
 - a. Performing cross-regional adequacy assessment;
 - b. Detecting absence of adequacy and proposing solutions to solve adequacy issues;

- c. Developing and providing reports on adequacy assessment results;
- d. Facilitating regional adequacy assessment coordination process;
- e. Coordinating with other RSCs appointed in application of Article 76 of the SO Regulation.

Article 10.

Data provision for executing tasks by regional security coordinator

1. TSOs shall provide the RSCs with all relevant data and information to allow execution and coordination of the tasks set forth in Articles 7, 8 and 9.
2. RSCs and TSOs shall respect requirements established in national legislation on information security of the different TSOs when managing data used in the ROSC process for CCR Hansa. This includes, but is not limited to;
 - a. Information access;
 - b. Information storage;
 - c. Communication.

TITLE 3

Regional Operational Security Coordination

Chapter 3

Provisions for regional operational security coordination

Article 11.

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

1. TSOs in coordination with RSCs shall perform regional operational security coordination for CCR Hansa and coordinate with the process for regional operational security coordination established for CCR Nordic and CCR Core in accordance with Article 76 of the SO Regulation.
2. The day-ahead and intraday regional operational security coordination process shall at least contain the following steps:
 - a. Input data preparation, such as individual grid models as described in Articles 13, list of Secured elements as described in Article 15, list of contingencies as described in Article 17 and set up of available remedial actions as described in Article 19;
 - b. Building of the CGM by RSCs as described in Article 7;
 - c. Operational security analysis in accordance with Articles 23 and 24 of CSAM;
 - d. Identification of remedial actions as described in Article 18 and coordination of remedial actions as described in Article 20;
 - e. Coordination of cross-CCR impacting remedial actions as described in Article 23;
 - f. Activation of remedial actions as described in Article 22.
3. TSOs and RSCs shall perform in intraday a coordinated regional operational security assessment

for all remaining market time units of the day.

4. TSOs shall jointly determine the minimum set of Secured elements on which operational security limits violations have to be identified and relieved in accordance with Article 15. The list of Secured elements shall at least include all Hansa XNEs.
5. Operational security limits shall be monitored, and their violations identified and relieved during a regional operational security coordination process that shall include at least power flows or current limits of Secured Elements.
6. Prior to the start of the regional operational security coordination process, each TSO shall have the right to perform a local preliminary assessment in order to detect any operational security limits violations on internal network elements. When preparing IGMs, each TSO shall have the right to include remedial actions resulting from these preliminary assessments in accordance with Article 21 of CSAM.
7. RSCs shall assess the completeness and consistency of input data provided by TSOs. In case of any inconsistency in the delivered files, the RSC shall report this fact to the concerned TSO and request their updating.
8. By 12 months after approval of Hansa ROSC Methodology, Hansa TSOs shall submit a description of the monitoring requirements regarding this Hansa ROSC Methodology. Hansa TSOs shall consult Hansa National Regulatory Authorities to elaborate on the monitoring requirements.

Article 12.

Timings and frequency of day-ahead and intraday regional operational security coordination process

1. TSOs and RSCs shall perform the day-ahead coordinated regional operational security analysis in accordance with Article 23 of CSAM, respecting the timings defined in accordance with Article 45 of CSAM.
2. TSOs with support of relevant RSCs shall jointly define the timings of the intraday regional operational security coordination process taking into account the CGM process defined in Article 22 of CGMM.
3. The timings referred to in paragraph 2 shall describe the workflow of the intraday regional operational security coordination process, taking into account steps introduced in accordance with Article 11(2).
4. The timings referred to in paragraph 2 shall be aligned between RSCs of adjacent CCRs to ensure coordination of the results between them and be consistent with the approved methodologies set up by TSOs in the different CCRs in accordance with Article 76(1) of the SO Regulation.
5. Timings of the intraday regional operational security coordination process referred to in paragraph 2 shall be published by the RSCs of CCR Hansa on the ENTSO-E website.
6. TSOs and RSCs shall perform the intraday regional operational security analysis at least three times a day in accordance with Article 24 of CSAM.
7. This process shall respect the timings and the frequency of Capacity Calculation process for Day-Ahead and Intraday according to CCR Hansa Capacity Calculation Methodology.

Chapter 4
Updates to the individual and common grid model

Article 13.

Preparation and updates of individual grid models by TSOs

1. Each TSO shall prepare and deliver to the RSC day-ahead and intraday individual grid models for day-ahead and intraday regional operational security coordination process in accordance with CGMM and CSAM.
2. Each TSO may include any non-cross-border relevant remedial actions in the individual grid models in accordance with Article 21(4) of CSAM. If necessary, each TSO shall update the individual grid models during the regional operational security coordination processes.
3. Each TSO shall include in its IGM preventive RAs which were agreed and coordinated during the previous CROSA processes in accordance with Article 21 of CSAM.
4. If the amendment of Article 21 of CSAM contradicts the statements in this Article these statements shall be amended.

Article 14.

Update of Hansa common grid models by RSC for CCR Hansa

1. RSCs shall check the consistency of the individual grid models provided by each TSO. In case the RSC detects an issue with an individual grid model provided by a TSO, the RSC shall contact the concerned TSO to solve the issue. If necessary, the concerned TSO shall provide an update of the individual grid model.
2. When 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, RSCs shall apply the substitution rules for individual grid models, defined in accordance with Article 20(4) of CGMM.

Chapter 5

Definition, preparation, coordination and activation of remedial actions in the regional operational security coordination process

Article 15.

Determination on secured elements

1. Each TSO shall define the network elements on which operational security violations have to be identified and managed in a coordinated way (hereafter referred to as "Secured Elements").
2. Secured Elements are equal to the CNEs. The CNEs in CCR Hansa are defined to be the interconnectors and other directly connected network elements forming a part of an interconnector.
3. TSOs shall update the Secured Elements when necessary and inform the RSC about the change.
4. Each TSO shall provide the list of Secured Elements to the RSCs.
5. RSCs shall consider the Secured Elements in the day-ahead and intraday regional operational security assessment.
6. RSCs shall evaluate the Secured Elements and may recommend to TSOs other network elements with operational security violations to be monitored during the regional operational security coordination process.
7. RSCs shall use the latest lists of secured elements shared by the TSOs.

Article 16.

Determination and exchange of information on cross-border relevant network elements

1. The XNEs of CCR Hansa represent Secured Elements defined in accordance with Article 15. All Secured elements in CCR Hansa are cross-border relevant (XNEs).

Article 17.

Definition and exchange of information on contingencies

1. Each TSO shall establish the list of contingencies to be simulated in the day-ahead and intraday regional operational security coordination process in accordance with Article 10 of CSAM (hereafter referred to as "contingency list").
2. Each TSO shall provide the RSC with the contingency list to be used in CROSA and shall inform the RSCs about any update of this list in accordance with Article 11 of CSAM.
3. RSCs shall evaluate the contingency lists provided by TSOs and may recommend to TSOs other contingencies that should be applied in regional operational security coordination process.
4. Each TSO shall inform the TSOs in its observability area about the external contingencies included in its contingency list.
5. Each TSO shall regularly update its contingency list and perform a full assessment of the list when necessary.
6. The RSCs shall use the latest contingency lists shared by the TSOs.

Article 18.
Preparation of remedial actions

1. Each TSO shall design remedial actions in accordance with Article 14 of CSAM.
2. Each TSO shall classify the remedial actions in accordance with Article 22 of the SO Regulation. The classification shall be done as costly or non-costly. Costly remedial actions are limited to countertrading, redispatching and curtailment.
3. When preparing remedial actions, each TSO shall consider constraints which may limit the usage of remedial actions. The following types of constraints shall be taken into account:
 - a. Technical limitations such as ramping restrictions, min/max output power, min/max redispatch or power change through HVDC systems;
 - b. Operational constraints and usage rules such as switching limitations, available range of taps, dependencies between topology measures;
 - c. Procedural constraints resulting from time limitations due to local or regional processes;
 - d. Legal requirements stated in national laws regarding the priority of activation of RAs.
4. When a TSO prepares remedial actions as defined in paragraph 3, the TSO shall perform a local security assessment to determine the potential of the interconnections for the exchange of Remedial Actions.
5. TSOs, in coordination with RSCs, shall identify whether the remedial actions designed in accordance with this Article are cross-border relevant;
6. If the designed remedial actions are provided in two or more CCRs, then this information shall be explicitly stated with restrictions on their use, such as priority of usage by one CCR or quantifiable share between CCRs for RA such as redispatching, countertrading, change of set point on HVDC systems or change of taps on phase-shifting transformers;
7. TSOs, in coordination with RSCs, shall qualitatively assess and agree on the cross-border relevance of remedial actions. In case of disagreement, the TSOs shall apply the quantitative assessment in accordance with Articles 15(4) and 15(5) of CSAM.
8. All remedial actions that are not identified as cross-border relevant shall be deemed as non-cross-border relevant.
9. If the identified XRA has an impact on a TSO from an adjacent CCR, the RSC shall share this information with the XRA-affected TSO and the RSC of that CCR.

Article 19.
Exchanging information on available remedial actions

1. Each TSO shall provide, to Hansa TSOs and RSCs, the list of available remedial actions for the purpose of the regional operational security coordination process, prepared in accordance with Article 18
2. The list of available remedial actions shall include information on cost and constraints of remedial actions defined in accordance with Article 18(3). In case costs cannot be established, the TSOs shall provide cost estimates.

3. When providing to its RSC the list of remedial actions, each TSO shall consider as available the remedial actions which were available for 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 more effective and efficient remedial action has become available.
4. If relevant, each Hansa TSO shall provide, to the Hansa RSCs, an updated list of remedial actions at the end of any coordination run of day-ahead or intraday regional operational security coordination process.
5. A common list for cross border relevant and non-cross-border relevant remedial actions shall be defined by the RSC based on the list of RAs delivered from the respective TSOs;
6. Each TSO shall inform the other TSOs and its RSC, in due time, about unavailable remedial actions for the coordination processes.
7. Each TSO shall inform its RSC whether a remedial action, provided to the RSC, is offered simultaneously to RSCs of adjacent CCRs.

Article 20.

Coordination of remedial actions

1. A coordinated security assessment shall be performed by the RSCs and TSOs.
2. In case of a detected operational security limit violation, the RSC shall recommend to the concerned TSOs appropriate remedial action provided by the TSOs in accordance with Article 19.
3. When identifying remedial action in accordance with Article 20(2), the RSC shall take into account the effectivity in relieving operational security violations of each remedial action and its cost.
4. When the RSC recommends remedial actions, it shall primarily recommend non-costly remedial actions. If there are no non-costly remedial actions which relieve operational security limit violations or their efficiency is insufficient, the RSC shall recommend also costly remedial actions.
5. The remedial actions identified for relieving operational security limit violations:
 - a. shall not lead to additional violations of operational security limits on other network elements;
 - b. should not worsen existing operational security limits violations on other network elements.
6. The RSC shall consider and, if possible, recommend remedial actions other than those provided by the TSOs. Such recommendation for remedial actions shall be accompanied by an explanation and is subject to validation by the concerned TSOs.
7. Recommendations of at least cross-border relevant remedial actions shall be made in the coordination process.
8. In case a remedial action is a combination of actions in more than one TSO's control area, such as DC Loop, both appointed RSCs shall consider this RA during the CROSA process and shall coordinate its application between each other and with the relevant RSCs of adjacent CCRs.

9. Each TSO shall evaluate the impact of the recommended remedial actions, taking into account the following conditions:
 - a. The remedial action is considered available for the specific market-time unit and the remedial actions relieve all operational security-limit violations on the affected network elements;
 - b. The remedial action is not setting the XRA-affected TSO's control area in a warning or alert state based on the common grid model used in the coordination process;
 - c. The remedial action is not leading to a violation of operational security limits in the XRA-affected TSO's control area after the simulation of the corresponding contingency based on the common grid model used in the coordination process.
10. The RSC shall coordinate with the other appointed CCR Hansa RSC, prior to proposing a remedial action.
11. When the TSOs accept the proposed remedial action, this remedial action shall be considered as agreed and included in the TSO's update of the individual grid model in accordance with Article 13.
12. When a TSO rejects the recommended remedial action, the TSO shall provide an explanation for this decision to its RSC and the other affected TSOs. The concerned TSO shall coordinate with the RSC and other TSOs to identify and plan alternative remedial actions to relieve the operational security limits violations in a coordinated way.
13. RSCs shall perform the coordinated cross-regional operational security assessment in accordance with Article 30 of CSAM, taking into account the following conditions:
 - a. The RSC shall exchange the results of the regional operational security coordination process with relevant RSCs of adjacent CCRs for cross-CCR impact assessment.
 - b. The RSC shall coordinate with RSCs of adjacent CCRs in order to find and recommend remedial actions.
 - c. The RSC shall inform all affected TSOs about the results of such cross-CCR coordination.

Article 21.

Identification of most effective and economically efficient remedial actions

1. The RSC shall assess the technical effectiveness and economic efficiency of the remedial actions provided by the TSOs.
2. The RSC shall define a merit order list per bidding-zone border of the most economically efficient remedial actions and share it with the TSOs.
3. The selection of the remedial action shall reflect the balance of the flow sensitivity of the remedial action and its economic efficiency.

Article 22.

Activation of remedial actions

1. Each TSO shall activate the remedial actions agreed in the operational security coordination processes in due time.
2. Where security violations remain unsolved 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 operational security limit violations. If an agreed remedial action becomes unnecessary, concerned TSOs may jointly decline an activation of a remedial action or may, where possible, deactivate an already activated remedial action. The concerned TSOs shall inform the RSCs about their decision.

Article 23.

Coordination of cross-CCR impacting remedial actions

1. In case of cross-CCR impacting remedial action, this remedial action shall be coordinated between RSCs of all impacted CCRs.
2. The use of remedial action potential of adjacent CCRs shall respect the provisions defined in Articles 18 and 20.

Chapter 6

Sharing of the costs of remedial actions

Article 24.

General provision for cost sharing of remedial actions

1. Cost sharing shall be applied for costly cross-border relevant remedial actions.
2. Each TSO shall provide the information about the expected costs of the remedial action in accordance with Article 19.
3. The cost-sharing principles pursuant to Article 25 shall complement Hansa RCCSM.
4. Cost-sharing principles shall be applied for activated remedial actions after the day-ahead and the intraday regional operational security coordination process.
5. Cost-sharing principles shall consider temporal dependencies of remedial actions.

Article 25.

Cost-sharing principles for activation of cross-border relevant remedial actions

1. When calculating the costs to be shared between relevant TSOs, the price for the activated and cross-border impacting remedial actions used shall be based on the actual bid prices or the cost calculated transparently on the basis of incurred costs.
2. The costs shall be incurred by the TSO on the market where the remedial action is activated.
3. The costs of redispatching and countertrading shall be covered in accordance with the Hansa RCCSM.

Chapter 7

Impact Assessment and timescale for implementation

Article 26.

Reporting

1. Remedial actions will be reported by TSOs as described in Article 13(1) of the Transparency Regulation (EC) 543/2013 and the regulation for Energy Market Integrity and Transparency 1227/2011.
2. RSCs shall record and share all necessary data to enable TSOs to fulfil the obligations regarding this Methodology, Hansa RCCSM and Article 17 of the SO Regulation.

Article 27.

Timescale for implementation

1. All TSOs and RSCs of CCR Hansa shall implement the Hansa ROSC Methodology without undue delay after the approval of the methodology, ensuring the following provisions are met:
 - a. regulatory approval and implementation of the amendments of CSAM in accordance with Article 27 (3), Article 21 (6) and Article 30 of CSAM;
 - b. implementation of Common Grid Model Methodology in accordance with Articles 67(1) and 70(1) of the SO Regulation;
 - c. development, testing and implementation of the IT tools, systems and procedures required to support the Hansa ROSC Methodology;
 - d. all the other methodologies and requirements which are necessary in order to establish ROSC process.
2. The implementation of this target solution shall consider the following steps:
 - a. High-level business solution consisting, among others, on drafting of the business process, performing the gap analysis with the current situation, screening the market for potential solution to fill the gaps and drafting related business, IT and service level requirements for tools and hardware and determining the acceptance criteria for validating the accuracy and robustness of the solution;
 - b. Tendering consisting in preparing and performing the selection and contracting of the vendors for the different tools and hardware solution identified in the step 2(a);
 - c. Development of the solution including the negotiation of performance requirements, Functional Acceptance Test, Site Acceptance Test and User Acceptance Test;
 - d. Experimentation of the solution by Core TSOs and Core RSCs experts and key users aiming at tuning the different parameters to ensure accuracy and robustness of the solution towards the acceptance criteria defined in the step 2(a);
 - e. Parallel operational run where Core TSOs and Core RSCs will train their operators and perform operational runs in parallel with the existing operational processes to assess the

accuracy and robustness of the solution towards the acceptance criteria defined in step 2(a);

3. The full implementation of this methodology depends on processes outside the control of the TSOs and RSCs in CCR Hansa, most notably the implementation of the CGMM. Intermediate steps in the implementation are therefore necessary, as described in Articles 6 and 7.
4. The implementation of the intermediate solution shall be done within 3 months after the go-live of regional CGMs in CCR Core and CCR Nordic. If the implementation of the requirements in this methodology is hampered by delays in implementation of other processes or products outside the control of the Hansa TSOs and RSCs, the TSOs and RSCs shall jointly consider implementing temporary solutions. If the TSOs and RSCs find benefits outweighing costs for a temporary solution, this solution shall be implemented without undue delay.
5. TSOs and RSCs shall report the progress of the implementation to National Regulatory Authorities of the Hansa CCR TSOs.

Chapter 8

Final Provisions

Article 28.

Publication of this Methodology

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

Article 29.

Language

The reference language for this Methodology shall be English. For the avoidance of doubt, where TSOs need to translate this Methodology into national language(s), in the event of inconsistencies between the English version published by TSOs in CCR Hansa 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 Methodology.

Statnett **Tennet**
taking power further **SVENSKA
KRAFTNÄT****PSE** **50hertz****ENERGINET**

Explanatory document to support the common regional coordinated operational security analysis methodology for Capacity Calculation Region Hansa in accordance with Article 76 and 77 of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation

20 December 2019

1. Introduction

The purpose of this document is to support the CCR Hansa ROSC methodology and provide more in-depth explanations on the issues that are covered by the methodology.

2. Hansa CCR - the link between Core and Nordic CCRs

Hansa CCR is located between CCR Core and CCR Nordic, including the borders defined in accordance with the CCR decision. Except for the DK1-DE/LU and the DK1-NL borders, the CCR Hansa borders interconnect the synchronous areas of Central Europe and the Nordic countries. Hansa CCR borders consist out of HVDC interconnections and radial AC connections. On a high level the Hansa CCR facilitates as bridge functionality for coordination between the CCRs of Core and Nordic. The Hansa CCR TSOs' vision is that the Hansa CCR business process can be included to current Core and Nordic CCR business processes. In Figure 1, a high-level overview of Hansa CCR in relation to Core and Nordic CCR is given. The figure depicts CCR Hansa in relation to the adjacent CCRs Core and Nordic, as well as how TSOs and RSCs interact being members of two CCRs. Statnett is included in the figure as it is foreseen to be part of Hansa CCR in a near future. This will take place when Statnett is certified as a TSO and the CCR configuration is amended in 2020.

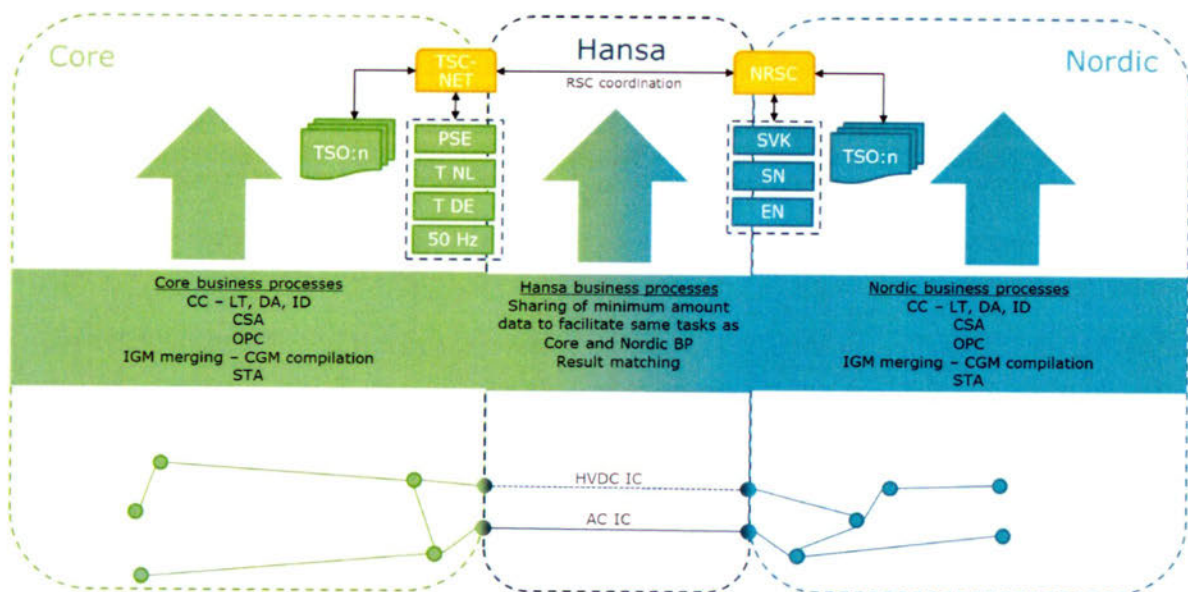


Figure 1 CCR Hansa relation to the adjacent CCRs Core and Nordic

3. Remedial actions in CCR Hansa – different market designs, agreements and mechanisms

There are different ways of providing remedial actions (RA) in CCR Hansa, consisting of different mechanisms, markets and agreements for the different control areas. The following section provides an overview of some the current mechanisms and agreements in place in each control area.

3.1 Denmark

Energinet, i.e. the Danish bidding zones in CCR Hansa, are part of the Nordic mFRR market – usually referred to as the Nordic Regulating Power Market (Nordic RPM). Balance Responsible Parties (BRPs) in the Nordics submit their bids for up- and downward regulation to the Nordic RPM on a voluntary basis, and TSOs combine the bids in a single merit order curve, from which they can activate the regulation in order to secure the physical balance of the power system and to relieve network congestions. If the bids are used to relieve internal network congestions, this is referred to as “special regulation” and functions as Countertrade. Towards the DK1-DE border Energinet uses RPM bids in DK1, and it is also considered to be used on the future DK1-NL border (Cobra).

Energinet does not have the possibility of conducting redispatch, as the location of the precise

generation or load in the Danish system is not known, so all network congestions are relieved by using countertrade.

3.2 Norway

Statnett also uses the Nordic RPM for balancing purposes in the Norwegian bidding zone NO2, in the same way as Energinet. In addition, Statnett uses this market for Redispatching. This is possible due to the geographical information connected to the Norwegian bids. Norwegian bids are marked by which substation group (stasjonsgruppe) the market participant is connected to. The bids in the Nordic RPM market are firm only 45 minutes prior to operations, and the volume and location of bids vary from one hour to the next. There are currently no mechanisms in place to secure redispatch bids in the planning phase.

3.3 Sweden

Svenska kraftnät also use the Nordic RPM for balancing purposes in the same way as Energinet and Statnett. At Svenska kraftnät's side of Swepol interconnector bids from the Nordic RPM are used when handling faults on the Swepol interconnector or if PSE requests resources for internal grid problems on the Polish side of the interconnector. Bids used for handling faults on the interconnector or for Polish grid problems are always seen as countertrade.

3.4 Poland

At PSE's side of the SwePol interconnector, RD and CT resources are activated within the Integrated Scheduling Process (ISP) run by PSE based on the volume of remedial measure (RD/CT) agreed with Svenska kraftnät. The ISP process is a bid-based security constraint unit commitment and economic dispatch, where balancing, reserve procurement and congestion management are co-optimised within one integrated process run by PSE just immediately after the day-ahead market closure and continues until real time. Commitment and operational set-points of all centrally controlled generation units in Poland are determined by PSE within the abovementioned ISP, minimising the global cost. The price used in the settlement of remedial measure reflects energy delivery/receipt cost of energy at the balancing market, i.e. it is based on the balancing market price and/or cost of activated resources when the location of resources is relevant to realise remedial measure.

3.5 The Netherlands

TenneT NL uses a nationally organised system for mFRR and aFRR bids. Within this system, a specific category of bids (so-called 'biedingen overige doeleinden') is introduced for, among others, redispatch purposes. In case of network congestions, a bid in the region at one side of the congestion is activated. A counterbid of the same magnitude is activated in any region other than the former region. The most economically efficient bids will be activated first in this system. The counteraction has a relatively large locational freedom, but pure countertrading is not used in the Netherlands. In case of an outage of NorNed, only the activation of bids in one direction is necessary to solve the imbalance the outage causes. In case no additional congestion occurs, there is no regional limitation necessary for these bids.

3.6 Germany

The German legal and regulatory framework allows German TSOs to incorporate significant grid users into redispatching. Planning data and redispatch potential are continuously submitted and updated from approximately D-1 14.00 until real time. From operational planning to close to real time, German TSOs have the possibility of ordering redispatching of specific generation units. This means the upward regulation and corresponding downward regulation while maintaining the overall energy balance. According to German law, curtailment of renewable energy sources is only allowed in exceptional cases in which no other measures, like redispatching or countertrading, are available or those measures are not effective.

As of October 2021, generation units of all energy sources greater than 100 kW can be used for redispatching and the law mentioned above will expire.

All CCR Hansa TSOs are currently considering if the future European Balancing platforms can be used for redispatch and countertrade, however this needs to be further investigated as the potential of these platforms depends on their design, gate opening and gate closure time, which are still under development by the European Balancing platforms projects.

4. Remedial actions in CCR Hansa – relevant resources utilised

CCR Hansa consists mainly out of bidding-zone borders between CCR Core and CCR Nordic which are HVDC interconnectors, except for the DE-DK connection. The natural remedial actions which can be offered in CCR Hansa are adjustments of active power flows through HVDC systems (in accordance with article 22 of the SO Regulation).

Changing the flow on a Hansa Interconnector can be an option for relieving congestion within the internal AC networks of one of the Hansa TSOs. This is not the scope of the regional optimisation in CCR Hansa but will have to be arranged as a cross-CCR action between CCR CORE, CCR Hansa and CCR Nordic. This is particularly relevant if a TSO cannot maintain the given Day Ahead (DA) capacities and this is known in the planning phase (just after the DA market results are received). If a TSO gives capacity with the intention of altering the flow on a Hansa interconnector after the DA market, separate agreements must be in place between the TSOs on both sides on the interconnector.

The HVDC lines of the CCR Hansa can both facilitate redispatching and countertrading actions between the Hansa TSOs and be used as remedial action itself. For both options the technical parameters, such as HVDC losses, ramping restrictions and other restrictions, should be respected. Next to this the impact to the connected AC networks should be taken into account when adjusting the active flows on HVDC interconnectors. When the HVDC lines are used to support redispatching and countertrading actions, at least two TSOs activate redispatching at both sides in either upward direction or downward direction. The active flows on the HVDC line will be adjusted accordingly to facilitate the redispatching action. In case of single countertrading, a marketplace may be involved. In this case market parties will trade the volumes in the intraday market requested by the TSO. The active flows of the HVDC interconnector will be adjusted accordingly based on the market outcome.

The HVDC interconnections can also be used as remedial action. An example of such remedial action is the so-called 'DC Loop'. It is a simultaneous change of scheduled exchanges on at least two HVDC links of the same amount of power in opposite directions. Such changes of exchange schedules do not lead to any change of generation level in any control area involved, which means there is no need to increase or decrease any generation (no redispatching nor countertrading involved). The aim of this remedial action is not to affect the market capacity on the cross-border connections.

A DC Loop is already used across the Baltic Sea utilising Kontek and SwePol HVDC links.

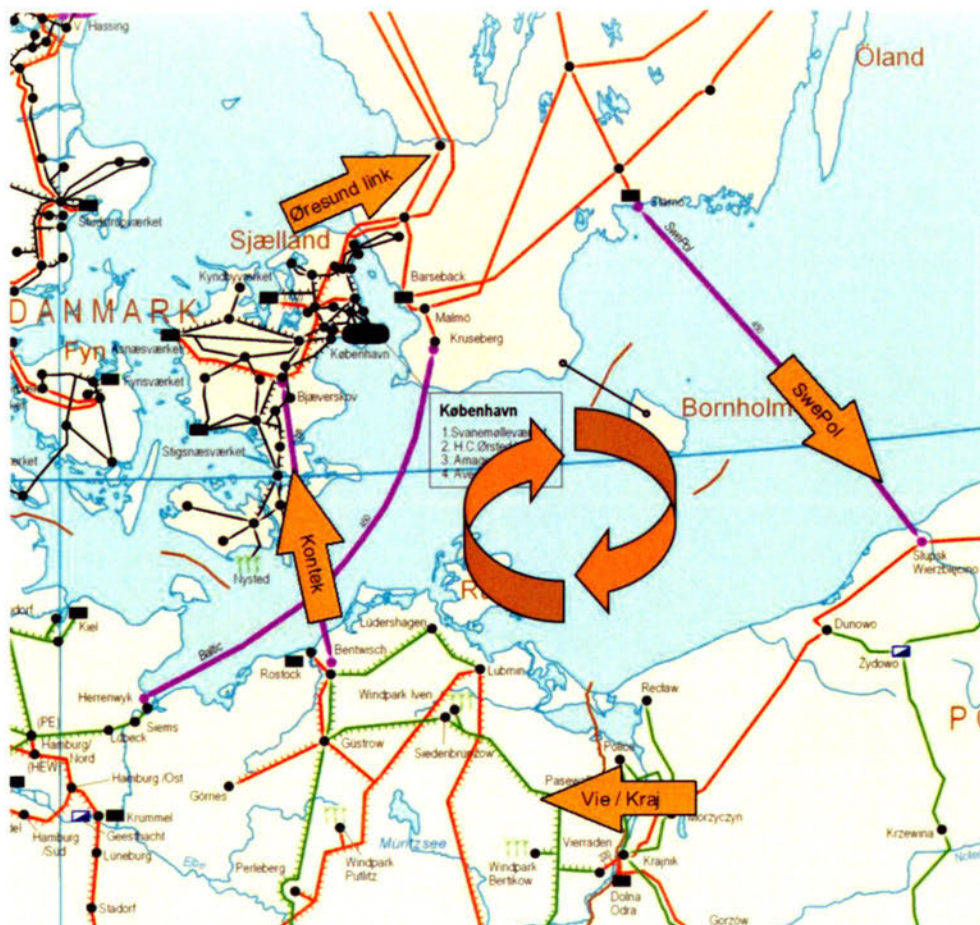


Figure 2 Connections involved in the DC Loop used currently across the Baltic Sea (clockwise DC loop)

Depending on the direction of the power-flow change, the DC Loop can be clockwise or counterclockwise. It relieves operational security limits on the German-Poland and Denmark-Sweden border as well as voltage problems on both sides of the interconnections. The maximum amount of power to be rescheduled in a closed loop is limited by the lowest free transmission capacity available on the affected profiles in a given time period. Due to the intraday market, the feasibility of the agreed and planned current DC loop flow schedule has to be verified on an hourly basis in the preparation frame of the next operational hour.

With the development of DC interconnections between countries in the Baltic Sea, the usage of the DC Loop can be extended with other connections also involving adjacent regions such as CCR Baltic.

5. Consistency with other Hansa methodologies

The ROSC methodology follows the previous definitions of which network elements that are considered for CCR Hansa. This view is chosen to maintain consistency in the business processes for capacity allocation and operational security analysis as well as outage planning and adequacy assessment. Not maintaining consistency through the business process will create a cumbersome management and increase the risks in the business process.

XNE are therefore defined as the CNE in the CCM for DA/ID as well as LT CCM which are the interconnectors. The scope of CCR Hansa with regards to secured elements is as defined in article 15 of Hansa ROSC methodology the XNEs.

6. Justification of selection of two RSCs for CCR Hansa

CCR Hansa appoints the Nordic RSC and TSCNET as the regional security coordinators to perform the

tasks, according to SOGL article 77(3). The consideration behind the appointment stems from the following aspects;

1. RSCs to be considered: An RSC is either a company or a joint office owned by its clients, the TSOs. It performs services for the TSOs, e.g. coordinated security assessment, capacity calculations, outage planning coordination, amongst others. Performing such critical services requires an RSC to be equipped with in-depth expertise in power system operation, IT tooling, and coordination skills with TSOs and neighbouring RSCs, etc. Currently, there are five RSCs in Europe available that CCR Hansa could appoint (see figure below).



Figure 3 RSCs in Europe

2. The Nordic RSC, owned by the Nordic TSOs including Energinet, provides services for the TSOs of CCR Nordic and Norway and is foreseen to be appointed as the regional security coordinator of CCR Nordic. Similarly, the four Central European (CE) TSOs in CCR Hansa and Energinet are currently being supported by TSCNET in providing various services, for instance in the TSC-wide DACF process. It is foreseen that TSCNET will be appointed as one of the regional security coordinators in CCR Core. The rest of the three RSCs either do not have an existing service arrangement with any of the Hansa TSOs or cannot be considered redundant in terms of the current existing services between the Hansa TSOs and TSCNET or the Nordic RSC.
3. CCR Hansa definition: Geographically, CCR Hansa is located between CCR Nordic and CCR Core and links the Nordic and CE synchronous areas. It is efficient for CCR Hansa to appoint its regional security coordinator considering the appointment of its neighbouring CCRs. This will mean that the RSCs which today have an in-depth knowledge of the grid in a given geographical area will keep this focus and will not have to master new parts of the grid, which would take significant time.

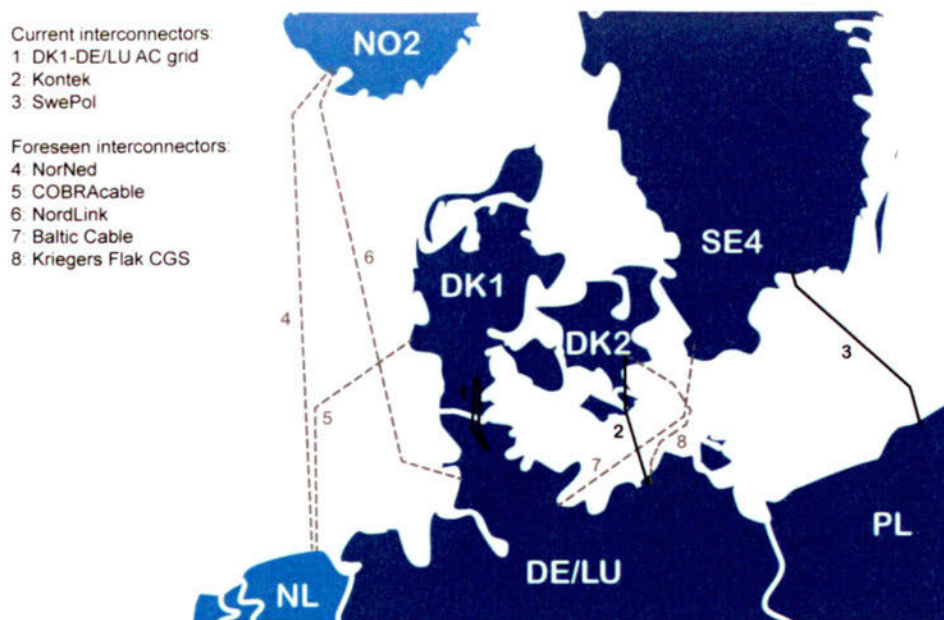


Figure 4 Current and future interconnections of CCR Hansa

4. Practical considerations (data security): The CCR Hansa TSOs consist of six TSOs, being three Nordic TSOs and four CE TSOs, with Energinet being part of both synchronous areas. The data security policy of these TSOs is not the same. Specifically, Swedish national security legislation requires Svenska kraftnät to only share its IGM if the 'Operational Planning Data Environment (OPDE) secret' level is fulfilled. OPDE Secret being the highest security level for the data exchange, defined by ENTSO-E. Other TSOs require 'OPDE confidential' security level, being the second most secure data exchange level. The IGMs of 'OPDE secret' TSOs are not allowed to be shared with other TSOs/RSCs that only require and are only equipped to handle lower security levels. The Nordic RSC aims at and is working towards achieving the highest 'OPDE secret' level, whereas TSCNET is equipped to handle the 'OPDE confidential'. In order to receive the 'OPDE secret' IGMs, all involved TSOs and RSCs must upgrade their security level to 'OPDE secret'. Such an upgrade is not planned for and is not foreseen to be in place before the go-live of operational data exchange, which is essential for all services that the RSCs need to perform. This leads to the conclusion that, for the foreseeable future, the IGMs of Svenska kraftnät cannot be shared outside the Nordic TSOs and the Nordic RSC.
5. The TSOs of CCR Core use a different format for the current exchange of IGMs than the TSOs of CCR Nordic. This is foreseen to be aligned during the implementation of CGMM. Before the implementation of CGMM it will be difficult share information through IGMs of different data structures as it is cumbersome to merge the two different file structures into a CGM.
6. In all development of CCR Hansa methodologies, the aim is to bridge the gaps between the methodologies in CCR Core and CCR Nordic. CCR Hansa does not want to duplicate work already done for these CCRs, but rather facilitate a close inter-CCR cooperation. Additionally, it will be efficient for the TSOs to avoid direct involvement with many RSCs. Bringing in a new RSC would complicate all processes and communication, increasing the risk of mistakes being made as well as duplicating setup cost. Adding new tasks for CCR Hansa will only represent a small extension of responsibility for Nordic RSC and TSCNET and will give each TSO one RSC as single point of contact.

Based on the considerations stated above, the CCR Hansa TSOs propose to appoint both Nordic RSC and TSCNET as the regional security coordinators, to jointly perform the tasks for the CCR Hansa TSOs.

7. Governing of CCR Hansa RSC

The overall cooperation between the RSCs and TSOs of CCR Hansa shall be governed by each respective RSC's competent governing body. The two governing bodies for each respective RSC with the competence for the overall cooperation within each RSC are jointly responsible for the overall management and cooperation and take the respective decisions with mutual consent. The two governing bodies are responsible for the strategic management of the cooperation, including the determination of the overall objectives and strategies of the cooperation as well as preparation for decisions on changes and further development of the cooperation. The RSCs and TSOs can decide to set up and terminate working groups or task forces required to fulfil agreed tasks or investigate and prepare proposals for further development of the cooperation.

8. National legislation

CCR Hansa encompasses bidding-zone borders for Denmark, Germany, the Netherlands, Poland and Sweden (Norway ratified the third package of energy legislation in 2019 and is expected to join the CCR during 2020). In order for the methodology to be implementable by the TSOs in their respective countries, the TSOs must adhere to the relevant national legislation independent of the European Energy legislation.

The Swedish Public Access to Information and Secrecy Act defines requirements for sharing of information vital for Sweden. The Swedish society is highly dependent on the supply of electrical energy. A consequence of this is that information regarding the transmission system is encompassed by the national security legislation.

Some of the data to be exchanged according to Hansa CCR ROSC may be subject to the Swedish Public Access to Information and Secrecy Act (2009:400). This may restrict the ability of Svenska kraftnät to exchange such data and that such data may only be exchanged with the Nordic RSC or other TSOs once certain conditions are met.

The provisions in article 10 of the ROSC are defined to ensure that national legislation is respected by all parties.

9. Response to consultation comments

The CCR Hansa ROSC methodology was available for public review from 17 October to 15 November on the ENTSO-E consultation platform. No comments were received from the public during the consultation.