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Capacity Calculation Region Hansa TSOs'
Coordinated Redispatching and Countertrading
Methodology in accordance with Article 35 of
Commission Regulation (EU) 2015/1222 of 24
July 2015 establishing a Guideline on Capacity
Allocation and Congestion Management

03 December 2020

All TSOs of the Capacity Calculation Region Hansa, taking into account the following:

Whereas

- (1) This document is a common methodology of the Transmission System Operators (hereafter referred to as “TSOs”) of Capacity Calculation Region (hereafter referred to as “CCR”) Hansa as described in the ACER decision¹.
- (2) This is a common methodology for Coordinated Redispatching and Countertrading (hereafter referred to as “**CRC Methodology**”) in accordance with Article 35 of Commission Regulation (EU) 2015/1222 establishing a guideline on Capacity Allocation and Congestion Management (hereafter referred to as the “CACM Regulation”).
- (3) This CRC Methodology takes into account the general principles, goals and other methodologies set in the CACM Regulation, Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereafter referred to as “SO Regulation”), Regulation (EU) 2019/943 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 (EU) 2019/943”) as well as the EC decision no. 2020/7948 of 11 November 2020 on the derogation for KF CGS following Article 64 of Regulation (EU) 2019/943. The CACM Regulation sets out rules to ensure optimal use of the transmission infrastructure, operational security and optimising the calculation and allocation of cross-zonal capacity, and it sets requirements for the TSOs to cooperate on the level of CCRs, on a pan-European level and across bidding-zone borders. The SO Regulation defines rules and requirements for methodology development for the purpose of safeguarding operational security, frequency quality and the efficient use of the interconnected system and resources.
- (4)
- (5) In accordance with Article 9(9) of the CACM Regulation, the proposed CRC Methodology for CCR Hansa contributes to and does not in any way hinder the achievement of the objectives of Article 3 of CACM Regulation. The CRC Methodology ensures operational security and fair and non-discriminatory treatment of TSOs (Article 3(c) and Article 3(e) of the CACM Regulation). It ensures operational security by specifying a process for coordination of redispatching and countertrading (hereafter referred to as “RD and CT”) measures of cross-border relevance whereby the Regional Security Coordinator(s) (hereafter referred to as “RSC”) is used as intermediary to ensure regional coordination and alignment. This in addition ensures equal treatment of TSOs.
- (6) In accordance with Article 35(2) of the CACM Regulation, the proposed CRC Methodology for CCR Hansa formalises the coordinated RD and CT on the CCR Hansa interconnectors, including facilitating the alleviation of physical congestion in the adjacent AC grids with cross-border relevance for the CCR Hansa bidding-zone borders. As such, a physical congestion in the adjacent AC grid on one side of the interconnector, that can be effectively alleviated by coordinated RD and CT on the CCR Hansa interconnectors, may impact the flow conditions in the adjacent AC grid on the other side of the interconnector.

¹ ACER’s definition of the Capacity Calculation Regions (CCRs) of 17 November 2016 (Annex I to CCR decision)
http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/ANNEXES_CCR_DECISION/Annex%20I.pdf

- (7) The CRC Methodology of CCR Hansa promotes coordination of RD and CT actions, which will enable efficient and secure use of the transmission infrastructure (Articles 3(b) and 3(c) of the CACM Regulation). By enhancing coordination between TSOs and allowing for more effective use of RD and CT resources, the CRC Methodology ensures and enhances the transparency and reliability of information and contributes to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union (Article 3(f) and (g) of the CACM Regulation).
- (8) CCR Hansa TSOs consider countertrading a measure with the objective of relieving physical congestions between two bidding zones, where the precise generation or load pattern alteration is not predefined, and redispatching a measure with the objective of relieving physical congestions by altering a particular generation and/or load pattern. Specifically, RD refers to one or several TSO(s), when congestion appears, and requires specific generators (or specific consumers) to start or increase production and specific other generators to stop or reduce production in order to maintain the network security.
- (9) The need for RD and CT, which has an impact on the CCR Hansa bidding-zone borders, can be identified in different timeframes, i.e. from day-ahead until real-time, in order to alleviate congestions and to maintain operational security. This CRC Methodology ensures that RD and CT measures that have been identified in the planning phase in one timeframe are also taken into account in the following timeframes.
- (10) RD and CT may be used in real-time operation according to Article 23 of the SO Regulation, which sets out the principles for preparation, activation and coordination of remedial actions².
- (11) According to Article 78(1)(b) of the SO Regulation, each TSO shall provide the CCR Hansa RSC with an updated list of possible remedial actions and their anticipated costs among the categories listed in Article 22 of the SO Regulation.
- (12) The CCR Hansa RSC will recommend the most effective and economically efficient RD and CT to relieve operational security violations, based on the information available for the RSC at any given time, following the SO Regulation Article 78(2)(a).
- (13) In the coordinated operational security analysis, the CCR Hansa RSC identifies the need and makes proposals to the CCR Hansa TSOs for the planning of RD and CT; this being based on the most effective and economically efficient measures. This continuous process, fed by updated information such as updated CGMs, will take place from day-ahead into the day of operation. The activation of RD or CT measures will be done as close to the time of operation as possible. This point in time should be coordinated between TSOs to allow for the planning to be updated with the latest information. This process allows for improvement of the selection of RD and CT measures and an activation of those measures only when they are needed.
- (14) This CRC Methodology ensures that the need to utilise RD and CT is documented through the operational security analysis carried out by the CCR Hansa RSC or by the CCR Hansa TSO and in real-time by the TSOs, as written in Article 7. RD and CT measures of cross-border relevance, which have been identified and tested as solutions to violations of the operational security limits in the operational security analysis are thereby verified as being needed to ensure system security.

² Remedial actions according to the SO Regulation include RD and CT

- (15) The details of the coordinated operational security analysis and regional operational security coordination regarding timing, scope etc. shall be decided under SO Regulation Articles 75 to 78.
- (16) With the EC decision no. 2020/7948 of 11 November 2020 on the derogation for KF CGS following Article 64 of Regulation (EU) 2019/943 the KF CGS was granted a 10 year exception. The decision sets out that the capacity to be used for calculating the minimum capacity shall be the residual capacity after deduction of the capacity necessary for transporting the forecasted electricity production by the wind farms connected to the Kriegers Flak Combined Grid Facility at the day ahead stage to the respective national onshore systems, rather than the total transmission capacity. The Hansa CRC Methodology is reflecting this decision in the solutions described for KF CGS by explicitly referring to an interconnector to which a number of windfarms are directly connected in Article 3(1)(c).

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

Article 1

Subject, matter and scope

1. This CRC Methodology shall be considered the common methodology of the CCR Hansa TSOs in accordance with Article 35 of CACM Regulation and covers the coordinated RD and CT on bidding-zone borders included in CCR Hansa to which the CACM Regulation applies and based on which the sharing of costs for redispatching and countertrading in CCR Hansa can be done in accordance with Article 74 of the CACM Regulation.
2. The CRC Methodology covers the timeframes from day-ahead until real-time, corresponding to the timeframes covered by the Capacity Calculation Methodology developed in CCR Hansa according to Article 20 of the CACM Regulation.

Article 2

Definitions and interpretation

1. For the purposes of the CRC Methodology, terms used in this document shall have the meaning of the definitions included in Article 2 of the CACM Regulation, of the Regulation (EU) 2019/943, of the Directive (EU) 2019/944, of the Commission Regulation (EU) 543/2013 (hereafter referred to as “Transparency Regulation”) and in the EC decision no. 2020/7948 of 11 November 2020 on the derogation for KF CGS following Article 64 of Regulation (EU) 2019/943.
2. In addition, in this CRC Methodology, the following terms shall have the meaning below:
 - a. ‘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;
 - b. ‘TSO’ means the CCR Hansa TSO(s) unless it is explicitly otherwise stated.
3. In this CRC Methodology, unless the context requires otherwise:
 - a. The singular indicates the plural and vice versa.
 - b. Headings are inserted for convenience only and do not affect the interpretation of the methodology.
 - c. References to an “Article” are, unless otherwise stated, references to an article of this CRC Methodology; and
 - d. Any reference to legislation, regulations, directives, orders, instruments, codes or any other enactment includes any modification, extension or re-enactment of it when in force.

Article 3

General provisions for redispatching and countertrading measures within CCR Hansa

1. RD and CT measures in CCR Hansa, based on appropriate mechanisms and agreements in accordance with CACM Article 35(3), are applied:

- a. In order to maintain minimum technical limits for stable operation of a CCR Hansa HVDC interconnector.
 - b. In order to handle fault, failure or unplanned outage on a CCR Hansa interconnector, including converter stations.
 - c. In order to maintain the capacity on the interconnector made available to the market in case a congestion occurs on an interconnector to which a number of windfarms are directly connected, and that congestion is due to a wind forecast error for one of the windfarms.
 - d. In case the RD and CT related to the CCR Hansa bidding-zone borders is proposed based on the operational security analysis carried out by the RSC other than referred to in Articles 3(1)(a), 3(1)(b) and 3(1)(c).
 - e. In case the RD and CT is coordinated between neighbouring TSOs of CCR Hansa in situations, other than referred to in Articles 3(1)(a), 3(1)(b), 3(1)(c) and 3(1)(d),
2. The coordination of the measures described in the Article 3(1)(a) to (d) shall follow the provision set in Articles 4 and 5, while the coordination of measures in Article 3(1)(e) shall follow the provisions set in Article 5.

Article 4

Regionally coordinated redispatching and countertrading

1. Articles 70(4), 76(1)(b) and 78 in the SO Regulation apply to the coordination of RD and CT to solve physical congestion identified within the coordinated operational security analysis. In addition, the following applies:
 - a. TSOs shall supply a list of possible RD and CT measures and their anticipated costs to the RSC. The list shall be supplied to the RSC prior to the operational security analysis being carried out. This list shall, to the extent possible, be based on existing market mechanisms and appropriate mechanisms and agreements applicable to TSOs' control areas, including interconnectors.
 - b. When the RSC detects a physical congestion related to the CCR Hansa bidding-zone borders within the coordinated operational security analysis and the RSC recommends to the relevant TSOs RD and CT measures, then the most effective and economically efficient RD and CT measures shall be selected.
 - c. When identifying appropriate RD and CT measures, the RSC shall coordinate with RSCs of other CCRs.
2. When a TSO receives, from the RSC, a proposal for RD and CT measures, it shall evaluate the recommended measures for the elements located in its control area. The TSO shall decide whether to implement the recommended RD and CT measures, and where the TSO decides to implement the recommended measures, the TSO shall apply them for the elements located in its control area, provided that it is compatible with real-time conditions.
3. In case a TSO does not agree with the RD and CT measure proposed by the RSC, the TSO must provide an explanation to the RSC for not following the RSC recommendation and:
 - a. Suggest different options found in the TSOs own control area to solve the physical

congestion. The RSC shall evaluate the new proposal from the TSO in relation to solving the physical congestion; or

- b. Request the RSC to present a new proposal. In such cases, the RSC should make new proposals to solve the physical congestion until an agreement is reached.
4. In case no RD and CT measure following Article 4(3)(a) or 4(3)(b) can be agreed upon by the TSOs and RSC, the physical congestion shall be handled according to Article 5.

Article 5

Bilaterally coordinated redispatching and countertrading

1. The TSOs shall, in order to ensure coordination in case of events that cause physical congestions happen in the timeframe between the last relevant coordinated operational security analysis and real-time, or if elements are not taken into account in the RSC coordinated operational security analysis:
 - a. Coordinate bilaterally with neighbouring TSOs in order to plan and carry out RD and CT;
 - b. Inform directly impacted TSOs and the RSC;
 - c. Include the RD and CT measures in the next relevant individual grid models.
 - d. Abstain from unilateral or uncoordinated RD and CT measures of cross-border relevance according to Article 35(4) of the CACM Regulation.
 - e. Shall make best efforts to ensure that a RD or CT measure does not create congestions in third TSOs' grid.

Article 6

Cross-regionally coordinated redispatching and countertrading

1. In addition to the RD and CT measures described in Article 3, the following two cases are applicable for cross-regionally coordinated RD and CT across CCR Hansa bidding-zone borders in accordance with appropriate mechanisms and agreements pursuant to CACM Article 35(3), and are subject to confirmation by relevant TSOs, in order to handle a physical congestion in the adjacent AC grid:
 - a. RD and CT related to the CCR Hansa bidding-zone borders is proposed by the RSC of neighbouring CCRs, through the RSC.
 - b. RD and CT related to the CCR Hansa bidding-zone borders is requested by a TSO of a neighbouring CCR, through the relevant connected TSO after the last relevant coordinated operational security analysis carried out by the RSC of that CCR.
2. The RSC can request RD and CT measures through the RSC of neighbouring CCRs.
3. After the last relevant coordinated operational security analysis carried out by the RSC, the TSOs can request RD and CT measures from neighbouring CCR, through the relevant connected TSO participating in that CCR.

Article 7

Documentation of redispatching and countertrading measures

1. The documentation following from Article 7 is limited to measures coordinated according to this CRC Methodology.
2. The CCR Hansa RSC is obliged to keep a record for 5 years regarding RD and CT covering the following:
 - a. the list of all possible RD and CT measures and their anticipated cost, as provided by the individual TSOs to the RSC in accordance with Article 78(1)(b) of the SO Regulation;
 - b. all RD and CT recommendations made by the RSC to TSOs;
 - c. the RD and CT measures carried out in line with the RSC recommendations based on information received from TSOs;
 - d. the justification for RSC RD and CT recommendations not carried out;
 - e. any alternative RD and CT measures taken, following Article 4(3) and 4(4), including not taking any actions at the given time, and the justification thereof or bilaterally coordinated RD and CT measures carried out in relation to the CCR Hansa borders.
3. In case alternative RD and CT is carried out, or no action is taken at the given time, the relevant TSO shall inform the RSC of such decisions and the justifications thereof in order for these to be recorded by the RSC.
4. In the event of launching bilateral RD and CT measures pursuant to Article 5(1), the TSOs have to inform the RSC of such measures in order for these to be recorded by the RSC.
5. The RSC shall record the following information, on a market time-unit basis, for each redispatching measure activated, in line with in the Transparency Regulation:
 - a. the measure taken (i.e. production increase or decrease, load increase or decrease, in MW);
 - b. the duration of the measure (in multiples of the market time unit);
 - c. the identification, location and type of network elements concerned by the measure;
 - d. the reason for the measure; and
 - e. capacity affected by the measure taken (in MW).
6. The RSC shall record the following information, on a market time-unit basis, for each countertrading measure activated in their control area, in line with the Transparency Regulation:
 - a. The measure taken (i.e. cross-zonal exchange increase or decrease, in MW);
 - b. the duration of the measure (in a multiple of the market-time unit);
 - c. the bidding zone concerned;
 - d. the reason for the measure; and
 - e. change in cross-zonal exchange (in MW).
7. Each TSO shall provide the RSC with the information of Articles 7(5) and 7(6) when bilaterally coordinated RD and CT actions are taken in accordance with Article 5(1).

8. Upon request of the NRAs, the TSOs are obliged to provide a complete record of the items documented based on Article 7.

Article 8

Publication and implementation of the CRC Methodology

1. The implementation of this CRC Methodology is subject to:
 - a. Regulatory approval of Redispatching and Countertrading Cost Sharing Methodology required by Article 74 of CACM Regulation in accordance with Article 9 of CACM Regulation.
 - b. The implementation of Coordinated Operational Security Analysis Methodology according to Article 75 of the SO Regulation.
 - c. The appointment and entry into operation of RSCs for CCR Hansa, CCR Core and CCR Nordic.
 - d. The implementation of the common provisions for regional operational security coordination for CCR Hansa, CCR Core and CCR Nordic according to Article 76 of the SO Regulation.
2. The methodology will be implemented 6 months after the provisions of this article are fulfilled.

Article 9

Language

The reference language for this methodology shall be English. For the avoidance of doubt, where TSOs need to translate this methodology into their national language(s), in the event of inconsistencies between the English version published by TSOs in accordance with Article 9(14) of the CACM Regulation and any version in another language, the relevant TSOs shall be obliged to dispel any inconsistencies by providing a revised translation of this methodology to their relevant national regulatory authorities.