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Document title (for publication):

Methodology for Regional Operational Security Coordination for the SEE CCR TSOs proposal for common provisions

Link title:

Methodology for Regional Operational Security Coordination for the SEE CCR

Deadline to issue the decision:

02 April 2021

ACER Decision on SEE ROSC Methodology: Annex I

**Methodology for regional operational security
coordination for the SEE CCR**

in accordance with ~~Articles~~Article 76 and 77(1) of Commission
Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on
electricity transmission system operation

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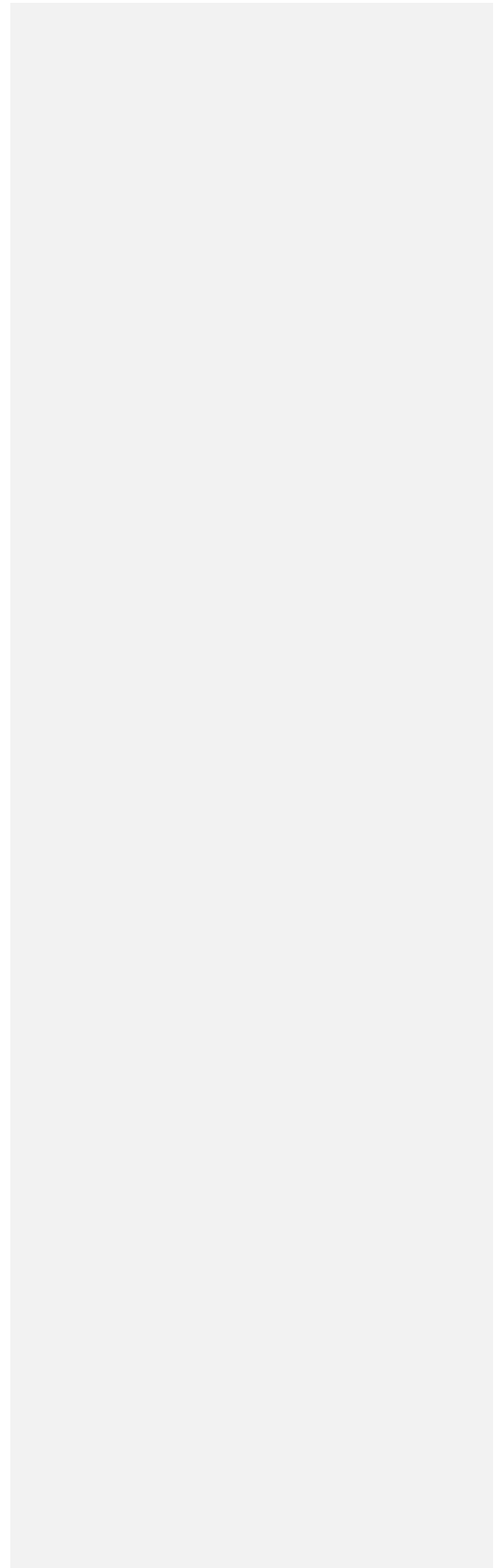
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TSOs of the South East Europe (SEE) Capacity Calculation Region, taking into account the following:

Whereas

[Commission Regulation \(EU\) 2017/1485 of 2 August 2017](#)



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Whereas

(1) This document describes the methodology for regional operational security coordination for the capacity calculation region SEE pursuant to Article 76(1) of the Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation (hereafter referred to as the “SO Regulation”) entered into force on 14 September 2017; “SO Regulation”). This document is hereafter referred to as the ‘ROSC Methodology’.

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~~(2) This document, including its possible annexes, is a common proposal developed by all Transmission System Operators (hereafter referred to as “TSOs”) of the SEE Capacity Calculation Region (SEE CCR) as defined in accordance with Article 15(1) of Regulation (EU) 2015/1222 on Capacity Allocation and Congestion Management (hereafter referred to as the “CACM Regulation”), for the methodology for regional operational security coordination (hereafter referred to as “ROSC methodology Proposal”) inside the SEE CCR, required by Article 76(1) and 77(1) of the SO Regulation.~~

~~(3) This ROSC methodology Proposal/Methodology takes into account the general principles and goals set out in the SO Regulation, as well as those of the CACM Regulation, 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”). Moreover, this ROSC methodology proposal follows the principles set out in the methodology for coordinating operational security analysis (hereafter referred to as “CSAm”) proposed by all TSOs in accordance with Article 75(1) of the SO Regulation, 2015/1222 establishing a guideline on capacity allocation and congestion management (hereafter referred to as the ‘CACM Regulation’).~~

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~~(4) In accordance with Article 76(1) of the SO Regulation, the ROSC methodology proposal “shall determine:~~

~~(3) conditions and This ROSC Methodology takes into account the possible dependencies with Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing, Commission Regulation (EU) 543/2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) 714/2009 (hereafter referred to as the “Transparency Regulation”) as well as Commission Regulation (EU) 1227/2011 on wholesale energy market integrity and transparency (hereafter referred to as the ‘REMIT Regulation’).~~

~~(4) Article 76 of the SO Regulation constitutes the legal basis and defines the requirements for the ROSC Methodology.~~

~~(a) (5) This ROSC Methodology defines an adequate frequency of intraday coordination of operational security analysis and updates to the common grid model by the regional security coordinator; CGM to ensure network security and stability in accordance with Article 76(1)(a) of the SO Regulation.~~

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~~(6) the methodology: This ROSC Methodology contributes to the objectives stated in Article 76(1)(b) of the SO Regulation introducing a coordination process with explicit rules for the preparation of cross-border relevant remedial actions managed in a coordinated way, considering their and assigns clear responsibilities for the SEE TSOs and SEE RSC.~~

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~~(b) (7) For the exchange of relevant information and preparation of cross-border relevance as determined; relevant remedial actions in accordance with Article 35 of Regulation (EU) 2015/1222, taking into account the requirements in Articles 20 to 23 and determining at least: 76(1)(b)(i) and Article 76(1)(b)(iv) of the SO Regulation, this ROSC Methodology determines all input data relevant for regional operational security coordination.~~

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~~(i) the procedure for exchanging the information of the available remedial actions; between relevant TSOs and the regional security coordinator;~~

[SEE TSOs proposal for common provisions for regional operational security coordination 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](#)

- ~~(ii) the classification of constraints and the~~ For the activation of cross-border relevant remedial actions in accordance with Article 22;
- ~~(iii) the identification of the most effective and economically efficient remedial actions in case of 76(1)(b)(iv) of the SO Regulation. this ROSC Methodology defines two types of coordination processes which aim to resolve operational security violations referred to in Article 22;~~
- ~~(iv) the preparation and activation of remedial actions in accordance with Article 23(2);~~
- ~~(v) the sharing of the costs of remedial actions referred to in Article 22, complementing where necessary the common methodology developed in accordance with Article 74 of Regulation (EU) 2015/4222. As a general principle, costs of non-cross-border relevant congestions shall be borne by the TSO responsible for the given~~

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~~control area and costs of relieving with cross-border relevant congestions shall be covered by TSOs responsible for the control areas in proportion to the aggravating impact of energy exchange between given control areas on the congested grid element."~~

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(5) ~~In accordance with Article 77(1) of the SO Regulation, the ROSC methodology proposal "shall also include common provisions concerning the organisation of regional operational security coordination, including at least:~~

- ~~(a) the appointment of the regional security coordinator(s) for that capacity calculation region;~~
- ~~(b) rules concerning the governance and operation of regional security coordinator(s), ensuring equitable treatment of all member TSOs;~~
- ~~(c) where the TSOs propose to appoint more than one regional security coordinator in accordance with subparagraph (a):~~
 - ~~(i) a proposal for a coherent allocation of the tasks between the regional security coordinators who will be active in that capacity calculation region, relevant remedial actions. The proposal shall take full account of the need to coordinate the different tasks allocated to the regional security coordinators;~~
 - ~~(ii) an assessment demonstrating that the proposed setup of regional security coordinators and allocation of tasks is efficient, effective and consistent with the regional coordinated capacity calculation established pursuant to Articles 20 and 21 of Regulation (EU) 2015/1222;~~
 - ~~(iii) an effective coordination and decision making process to resolve conflicting positions between regional security coordinators within the capacity calculation region."~~

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(6) ~~In accordance with Article 77(3) of the SO Regulation, the TSOs of each capacity calculation region shall propose the delegation of the following tasks:~~

a) ~~(8) regional operational security standard coordination process is called coordinated regional operational security analysis ('CROSA') in accordance with Article 78 of SO Regulation in order to support TSOs fulfil their obligations for the year-ahead, day-ahead and intraday time frames in Article 34(3) and Articles 72 and 74 of SO Regulation; the SO Regulation that is performed at a regional level by all SEE TSOs and RSC together. In cases where the CROSA cannot be applied, TSO(s) can apply a fact activation process, which is a limited coordination performed by a TSO(s) facing operational security violation in coordination with the RSC and other TSOs, which may be affected by application of remedial actions.~~

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b) ~~(9) building This ROSC Methodology defines all relevant types of common grid model constraints which are necessary to ensure the operational security in accordance with Article 79(1)(b)(ii) of the SO Regulation.~~

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(10) ~~regional outage coordination To identify the most effective and economically efficient remedial actions in accordance with Article 80(1)(b)(iii) of the SO Regulation, in order to support TSOs fulfil their obligations in Articles 98 and 100 this ROSC Methodology introduces the remedial action optimisation ('RAO'). The aim of this optimisation is to minimise the incurred cost as well as to ensure the remedial actions are applied effectively to address operational security violations.~~

e) ~~(11) In accordance with Article 76(1)(b)(v) of the SO Regulation, this ROSC Methodology complements the cost sharing methodology for the SEE CCR established pursuant to Article 74 of the CACM Regulation. While the cost sharing methodology determines the concrete cost sharing solution, this ROSC Methodology determines all the relevant input data and parameters that are required for the application of the cost sharing methodology.~~

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- ~~d) regional adequacy assessment in accordance with Article 81 of SO Regulation in order to support TSOs fulfil their obligations under Article 107~~

- (12) ~~This ROSC methodology proposal~~As the SEE CCR is characterised by a highly meshed network, all network elements of voltage equal or higher than 150 kV and all available remedial actions are generally considered as cross-border relevant. This is because in SEE CCR it is generally not possible to identify a network element that would be impacted only by remedial actions that do not have any impact on other cross-border relevant network elements. Still, exceptions to the rule are possible if all SEE TSOs agree that individual network elements can be considered as not cross-border relevant.
- (13) As all potential remedial actions are considered as cross-border relevant in SEE CCR, when it comes to coordinated regional operational security analysis, there is no need for qualitative or quantitative assessment of their cross-border relevance in accordance with CSAM. Nevertheless, after optimal cross-border remedial actions are determined by RAO, these can be further modified by subsequent coordination and fast activation process and these modifications need to be coordinated only among the TSOs which are directly affected by the concerned remedial action. For this purpose, this ROSC Methodology also defines a methodology for a qualitative and quantitative assessment of TSOs that are significantly affected by cross-border relevant remedial actions.
- (14) To achieve the objectives stated in Article 76(1) of the SO Regulation, the ROSC Methodology considers and, where necessary, complements:
- (a) the methodology for coordinating operational security analysis in accordance with Article 75 of the SO Regulation (hereafter referred to as ‘CSAM’);
 - ~~(7)(b) the common SEE CCR methodology for coordinated redispatching and countertrading (hereafter referred to as “RDCT Methodology”) proposed by the TSOs of SEE CCR Region in accordance with Article 35 of the CACM Regulation;~~
 - ~~(8)(c) This ROSC methodology proposal considers and, where necessary, complements the common SEE CCR methodology for coordinated redispatching and countertrading cost sharing (hereafter referred to as “RDCT cost sharing Methodology”) proposed by the TSOs of SEE Region methodology’) in accordance with Article 74 of the CACM Regulation.~~
- (15) In this ROSC Methodology, the CROSA, consists of a preparation step, a coordination step (containing one or more coordination runs) and a validation step. The goalCROSA describes the coordination between TSOs and the RSC of the SEE CCR as well as coordination of SEE TSOs and the RSC with the TSOs and RSC(s) of other CCRs.
- (16) In accordance with Recital (15) of the SO Regulation, synchronous areas do not stop at the European Union's (EU) borders and can include the territory of third countries. The TSOs should aim for secure system operation inside all synchronous areas which include EU countries. This ROSC Methodology is open to safeguard operational security, frequency quality and the efficient participation of third country TSOs subject to a common agreement and equal rights and responsibilities.
- (17) To ensure the tools implemented to build CGMs and operated by RSC(s) will be compliant with the respective requirements set up in the relevant legislation in force, including the SO Regulation (notably Article 79(5) of the SO Regulation), the CGMM and the CSAM, while ensuring reliability of the CGM delivery process and the aligned use of the interconnected system and resources. The ROSC methodology Proposalresulting unique CGM, a consistent and harmonised approach at pan-European level is needed. This should be facilitated by ENTSO-E where all EU TSOs are involved.
- (18) This ROSC Methodology also includes the appointment of an RSC and rules concerning the governance and operation of the RSC, according to Articles 77(1), 77(2) and 77(3) of the SO Regulation.

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(19) In accordance with Article 35(2) of Regulation 2019/943 of the European Parliament and of the Council on the internal market for electricity (hereafter referred to as “Electricity Regulation”), the regional coordination centres (‘RCCs’) shall replace the RSCs established pursuant to the SO Regulation and shall enter into operation by 1 July 2022. The SEE RCC shall complement the role of TSOs by performing the tasks of regional relevance assigned to it in accordance with Article 37 of Electricity Regulation.

(9)(20) This ROSC Methodology contributes and does not in any way hinder the achievement of to the objectives of Article 4 of the SO Regulation as follows:

a) Article 4(1)(a) of SO Regulation aims at determining for the SEE CCR common operational security requirements and principles. The SEE CCR ROSC methodology Proposal serves this objective by are followed with the common remedial action optimisation in accordance with Article 4(1)(a) of the SO Regulation as well as introducing common set of principles to be followed by TSOs in the Region for coordinated interconnected system operational security coordination.

(d) planning principles for remedial actions in accordance with Article 4(1)(d) of the SO Regulation aims at ensuring:

b)(a) it ensures the conditions for maintaining the operational security throughout the Union. The SEE CCR ROSC methodology Proposal serves this objective by setting out specifying the rules provisions and process for the coordination both of operational security within the Region SEE CCR, as well as on cross-regional level, thus ensuring operational security also beyond the limits with neighbouring CCR systems in accordance with Article 4(1)(d) of the Region SO Regulation;

e) Article 4(1)(e) of SO Regulation aims at ensuring the conditions for maintaining a frequency quality level of all synchronous areas throughout the Union. The SEE CCR ROSC methodology Proposal serves this objective since maintaining the operational security is essential (together with the balancing mechanisms) for safeguarding the frequency quality in the interconnected system.

d)(b) Article 4(1)(f) of SO Regulation aims at promoting the coordination of system operation and operational planning. The SEE CCR ROSC methodology Proposal serves this objective by setting out rules for the preparation of remedial actions to be coordinated by using for the SEE CCR a common remedial action optimisation where the RSC together with TSOs will ensure efficient coordination in accordance with Article 4(1)(f) of the SO Regulation;

e)(c) Article 4(1)(g) of SO Regulation aims at ensuring and enhancing the ensuring transparency and reliability of information on transmission system operation. The SEE CCR ROSC methodology Proposal serves this objective by introducing specific provisions for the exchange of necessary information among the TSOs in the Region for achieving the necessary coordination, and the efficient operation of the electricity transmission system in the Union by introducing common monitoring obligations and communication formats in accordance with Article 4(1)(g) of the SO Regulation;

f)(d) Article 4(1)(h) of SO Regulation aims at contributing to the efficient operation and development of the electricity transmission system and electricity sector in the Union. The SEE CCR ROSC methodology Proposal serves this objective since this specific Region is an integral part of the European interconnected system. Therefore, by safeguarding secure operation in the Region, the overall security is guaranteed, and the markets can function in a way that provides the right incentives for the development of the system and the electricity sector in the Union, making sure that the most efficient resources are used in the optimisation for relieving congestions in accordance with Article 4(1)(h) of the SO Regulation;

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[SEE TSOs proposal for common provisions for regional operational security coordination 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](#)

(10)(21) In conclusion, this ROSC ~~methodology proposal~~Methodology contributes to the general objectives of the SO₂ Regulation, ~~and of the Electricity Regulation and to the benefit of all market participants and electricity end-users.~~

^ ~~SUBMIT THE FOLLOWING ROSC METHODOLOGY PROPOSAL TO ALL REGULATORY AUTHORITIES:~~

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TITLE 1

GENERAL PROVISIONS

Article 1

Subject matter and scope

1. This Proposal for regional operational security coordination ROSC Methodology is developed in accordance with Article 76 of the SO Regulation and for organisation of regional operational security coordination in accordance with Article 77 of the SO Regulation is the common proposal of all TSOs of SEE CCR Region.
2. This Proposal ROSC Methodology shall cover the year-ahead, day-ahead and intraday regional operational security coordination within SEE CCR Region. (SEE TSOs: ADMIE, ESO EAD, Transelectrica).
3. TSOs from jurisdictions outside the area referred to in Article 2(2) of the SO Regulation may participate in the coordinated security analysis on a voluntary basis, provided that
 - a) for them to do so is technically feasible and compatible with the requirements of the SO Regulation;
 - b) they agree that they This ROSC Methodology shall have the same rights and responsibilities with respect to the coordinated security analysis as the TSOs referred to in paragraph 2;
 - c) they accept any other conditions related to the voluntary nature of their participation in the coordinated security analysis that the TSOs referred to in paragraph 2 may set;
 - d) the TSOs referred to in paragraph 2 have concluded an agreement governing the terms of the voluntary participation with the TSOs referred to in this paragraph;
 - e) once TSOs participating in the coordinated security analysis on a voluntary basis have demonstrated objective compliance with the requirements set out in (a), (b), (c), and (d), the TSOs referred to in paragraph 2, after checking that the criteria in (a), (b), (c), apply to all TSOs and (d) are met, have approved an application from the TSO wishing to participate on a voluntary basis in accordance with the procedure set out in Article 5(3) of the SO Regulation.
4. The TSOs referred to in paragraph 2 the RSC within the SEE CCR. This ROSC Methodology shall monitor that TSOs participating in coordinated security analysis on a voluntary basis apply to SEE RCC(s) upon their establishment pursuant to paragraph 3 respect their obligations. If a TSO participating in the coordinated security analysis pursuant to paragraph 3 does not respect its essential obligations in a way that significantly endangers the implementation and operation of the SO Regulation, the TSOs referred to in paragraph 2 shall terminate that TSO's voluntary participation in the coordinated security analysis process in accordance with the procedure set out in Article 5(3) of the SO Article 35 of the Electricity Regulation.
4. This ROSC Methodology shall also apply to third country TSO(s), if such TSO(s) have signed an agreement with all SEE TSOs that they shall comply with this ROSC Methodology, as well as the SEE methodologies pursuant to Article 35 and Article 74 of the CACM Regulation and accept all the rights and obligations stemming from them. In such case the reference to SEE TSO(s) and SEE CCR in this methodology shall also include such third country TSO(s).

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Article 2 Definitions and interpretation concepts

1. For the purposes of this ~~proposal~~ ROSC Methodology, the terms used shall have the meaning of the definitions included in Article 3 of the SO Regulation, Article 2 of ~~Regulation 2015/1222 and the other items of legislation referenced therein. In addition, the following definitions shall apply:~~ the CACM Regulation, Article 2 of the Electricity Regulation and Article 2 of the Transparency Regulation.

~~In addition, the following acronyms and definitions shall apply:~~

- a) ~~'cross-border relevant remedial action' or 'RA' means any measure according to Article 22.1 of the SO Regulation which is applied by a TSO or several TSOs, manually or automatically, in order to maintain operational security;~~
- (a) 'preventive remedial action' or 'PRA/XRA' means a remedial action identified as cross-border relevant and needs to be applied in a coordinated way;
- b) ~~'available XRA' means an XRA 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;~~
- c) ~~'curative remedial action' or 'CRA' means a remedial action that is the result of an operational planning process and is activated straight 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) ~~'restoring remedial action' or 'RRA' means a remedial action that is activated subsequent to the occurrence of an alert state for returning the transmission system into normal state again;~~
- e) ~~'agreed remedial action' means a RA which TSOs in CCRs agreed to implement;~~
- f) ~~'activated RA' means the ordered RA with the resource provider;~~
- g) ~~'ordered remedial action' is the subset of the Agreed RA that is bindingly ordered by the TSO which cannot be reassessed in the following operational security assesment considering the lead time required for its activation;~~
- h) (b) 'shared RA' means a RA available for the global optimisation CROSA, to relieve operational security limit violations;
- (c) 'recommended XRA' is an XRA determined as optimal by RAO and/or recommended by RSC(s) to TSOs;
- (d) 'agreed XRA' means an XRA which has been agreed during the coordination among SEE TSOs and RSC(s);
- (e) 'ordered XRA' is an agreed XRA that is bindingly ordered after the end of CROSA;
- (f) 'agreed but not ordered XRA' or 'ANORA' is an agreed XRA that has not been ordered after the end of CROSA;
- (g) 'activated XRA' means ordered XRA that has been implemented by the XRA connecting TSO(s), or the request for their activation has been sent to the third party XRA provider;
- (h) 'CGM' means the common grid model as defined in Article 2(2) of the CACM Regulation;
- (i) 'CGMM' means the common grid model methodology pursuant to Articles 67 and 70 of the SO Regulation;
- i) (j) 'conditionally shared RA'/available XRA' means a shared RA an XRA, whose applicability/availability depends on conditions provided/determined by the XRA Connecting TSO(s);
- j) ~~'non-shared RA'/'CSAM' means a RA used to relieve specific~~ the methodology for

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- coordinating operational security limits violations and not available for the global optimisation;
- k) 'set analysis pursuant to Article 75 of remedial actions' means a combination of remedial actions that are to be activated as a whole to maintain operational security the SO Regulation;
- l) 'CROSA' or 'coordinated regional operational security assessment' or 'regional CSA' means a process of an operational security analysis performed by a RSC on a common grid model RSC(s) in accordance with Article 78 of the SO Regulation;
- m) 'coordinated operational security analysis' means an operational security analysis performed by a TSO on a common grid model, in accordance with Article 72(3) and 72(4) of the SO Regulation;
- n) 'critical network element' or 'CNE' 'ID RSA' means the network elements significantly influenced by cross-zonal power exchanges whose intraday regional operational security limits and contingencies are monitored during analysis as referred to in Article 72(1)(d) of the capacity calculation process SO Regulation;
- o) 'area of common interest' or 'ACI' 'IGM' means the list of critical network elements pursuant to the coordinated Redispatching and Countertrading methodology (XNEs) developed in accordance with Article 35 individual grid model as defined in Article 2(1) of the CACM Regulation;
- p) 'Constraint' 'RAO' means a situation in which there is a need to prepare and activate a remedial action in order to respect operational security limits optimisation that determines optimal set of XRAs within each CROSA;
- q) 'cross-border relevant remedial action' or 'XRA' means a remedial action consisting of RD and CT means 'redispatching and countertrading identified countertrading', as cross-border relevant and needs defined pursuant to Article 2(26) and Article 2(13) of the Transparency Regulation;
- r) 'ROSC' means 'regional operational security coordination';
- s) 'scanned element' means a network element which is monitored during CROSA such that CROSA does not worsen, or create new operational security violations;
- t) '(X)RA connecting TSO' means a TSO responsible for the control area where the (X)RA is located or connected. In case of an interconnector, the TSO executing the topological change shall be applied in a coordinated way considered as (X)RA connecting TSO;
- u) 'XRA affected TSO' means the TSO which is significantly impacted by the activation of an XRA;
- v) 'XNE' or 'cross-border relevant network element' or 'XNE' means a network element identified as cross-border relevant and on which operational security violations need to be managed in a coordinated way;
- w) 'XNEC' or 'cross-border relevant network element with contingency' or 'XNEC' means an XNE associated with a contingency. For the purpose of the CRCM this methodology, the term XNEC also covers the case where an XNE is used in operational security analysis without a specified contingency;
- x) 'XNE connecting TSO' means the TSO responsible for the control area where the XNE is located or connected. In case of an interconnector, the TSOs on both sides of the interconnector shall be considered as XNE connecting TSOs;
- y) 'third party (X)RA provider' means a party other than the (X)RA connecting TSO who owns and/or operates the assets involved in the activation of the concerned (X)RA;

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- (z) 'network 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;
- (aa) 'RAIF' or 'remedial action influence factor' means a flow deviation on a XNEC resulting from the application of a remedial action or of a set of remedial actions, normalised by the maximum admissible flow of PATL on the XNEC associated XNE;
- (bb) 'loop flows preventive (X)RA' 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;
- (cc) 'local preliminary assessment' means an operational security analysis performed by a TSO to prepare an individual grid model;
- (dd) 'overlapping XNE' means an XNE on which the physical flow on a line where the source and sink flows are located significantly impacted by electricity exchanges in the same bidding zone two or more CCRs or by XRAs from two or more CCRs;
- (ee) 'overlapping XRA' means an XRA that is able to address operational security violations on overlapping XNE;
- (ff) 'curative (X)RA' means a remedial action that is the result of an operational planning process and the line or even part of the tie-line is located in a different bidding zone is activated straight subsequent to the occurrence of the respective contingency for compliance with the (N-1) criterion, taking into account TATL and the accepted duration of transitory admissible overload;
- (g) 'Import/Export flows' means the physical flow on a line where the source and sink are located in different bidding zones that are adjacent to each other;
- (h) 'Transit flows' means the physical flow on a line where the source and sink are located in different bidding zones that are not adjacent to each other;
- (i) 'Internal flows' means the physical flow on a line where the source and sink are located in the same bidding zone and the line or even part of the tie-line is located in the same bidding zone;
- (j) 'redispatching' means a measure performed by one or several TSOs by altering specific generation and/or load patterns in order to change physical flows in the transmission system and relieve physical congestions. The location of the units considered for Redispatching are known and the parameters of the resource are known;
- (k) 'countertrading' means a measure performed by one or several TSOs in one or several bidding zones in order to relieve physical congestions where the location of activated resources within the bidding zone is not known.
- (gg) The 'virtual positive load margin' means a positive margin defined by a TSO for a scanned element that will be applied on top of the PATL in order to represent the influence of available remedial action which is not an XRA;
- (hh) 'permanent admissible transmission loading', or 'PATL' means the maximum loading in amperes, MW or MVA that can be sustained on a network element for an unlimited duration without risk to the equipment;
- (ii) 'temporary admissible transmission loading', or 'TATL' means the maximum loading in amperes, MW or MVA that can be sustained on a network element for a limited duration without risk to the equipment;
- (jj) 'thermal limit' refers to both PATL and TATL;

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(kk) 'transitory admissible overload' means the temporary overload of a network element which is allowed for a limited period and which do not cause physical damage to the network element as long as the defined duration and thresholds are respected.

2. This ROSC Methodology defines the following types of XRAs determined in the following sequence:

(a) Recommended XRAs are the XRAs determined as optimal by RAO and recommended by the RSC to TSOs;

(b) Agreed XRAs are the recommended XRAs which are either agreed or modified during the coordination among TSOs and the RSC;

2-(c) Ordered XRAs are agreed XRAs for which TSOs and the RSC agree that their activation cannot be postponed until the next CROSA due to specific activation constraints are considered in this methodology; (e.g. required activation time) of such XRAs;

(d) Constraints in line with SO Regulation means a situation in which there is a need to prepare and activate a RA in order to respect operational/Activated XRAs are the ordered XRAs which have been implemented by the XRA connecting TSOs, or the request for their activation has been sent to the resource provider.

3. This ROSC Methodology determines the following types of constraints:

a. Operational security limits. The constraints consist of the following:

(a) Power flows and voltages exceeding the acceptable operating boundaries for secure grid operation.

This ROSC Methodology shall cover the following operational security limits:

(i) thermal limits of network elements (PATL and TATL);

(ii) voltage limits;

(iii) stability limits of the transmission system identified in accordance with Article 38(2) and Article 38(6) of the SO Regulation; and

(iv) short-circuit current limits of the transmission system.

b-(b) Constraints on XRAs: constraints related to all aspects required to be taken into account when using RAs/XRAs and classified as following followed:

i-(i) Technical/technical constraints are all the rules related to the representing technical limitations for resources for redispatching in accordance with article 5 of SEE CCR RDCT methodology or network elements; activation of XRAs;

ii-(ii) Operational/operational constraints are all the operational conditions and usage rules taking into account the timings to operate the grid/network and avoid a premature ageing of the network elements/assets included in the XRAs;

iii-(iii) Procedural/procedural constraints are all the timing constraints due to local or regional processes; and

iv-(iv) Legal/priority constraints are the representing national legal requirements stated in national laws regarding the priority of activation of RAs/XRAs.

(c) System constraints are all the Additional optimisation constraints added by SEE CCR TSOs called system constraints are additional optimisation constraints, expressed as flow limitation/current limits on one single or a set of Secured/XNEs and Scanned Elements/scanned elements and necessary to respect stability limits or operational security limits other than power flow limits. These are further detailed in Article 17 PATL and TATL.

3. Potential categories of remedial actions shall be classified in accordance with Article 22 of the SO

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Regulation.

- 4. Where this Methodology refers to grid elements, it includes HVDC systems.
- 5. 'IGM' and 'CGM' respectively stand for 'individual grid model' and 'common grid model'.

6.4. In this Proposal ROSC Methodology, unless the context requires otherwise:

- (a) ~~the~~The acronym '(X)RA' is used where the reference can mean both the remedial action or cross-border relevant remedial action;
- a)(b) The singular indicates the plural and vice versa;
- b)(c) ~~the~~Headings are inserted for convenience only and do not affect the interpretation of this ROSC methodology Proposal/Methodology;
- c) References to an "Article" are, unless otherwise stated, references to an article of this ROSC methodology Proposal;
- d) References to a "paragraph" are, unless otherwise stated, references to a paragraph included in the same article of this ROSC SEE CCR methodology Proposal where it is mentioned; and
- e)(d) ~~any~~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.

(e) ~~Title~~Any reference to an Article without an indication of the document shall mean a reference to this ROSC Methodology.

TITLE 2

REGIONAL OPERATIONAL SECURITY COORDINATION

Article 3

General provisions for ROSC

- 1. SEE CCR TSOs in coordination with the SEE CCR RSCs RSC shall perform the ROSC for long term studies for year-ahead regional operational security coordination in accordance with CSAM. When SEE TSOs propose a first amendment to this ROSC Methodology, they shall include in this proposal also the detailed process for regional operational security coordination for year-ahead timeframe as well as possible other long-term timeframes.

1-2. SEE TSOs in coordination with the SEE RSC shall execute the ROSC for each ~~hour~~timestamp of the target operation day. The ROSC is ~~composed~~consists of the following activities:

- (a) ~~SEE CCR TSOs and SEE CCR RSCs shall perform~~Intraday regional operational security analysis (ID RSA) as described in Article 4;
- a)(b) One day-ahead and ~~several~~intraday CROSAs. Day-ahead CROSAs shall be performed in accordance with the timings defined in CSAM. Intraday CROSAs shall be performed at least three times in the intraday timeframe in accordance with ~~article 24 of~~timings defined in CSAM. Each CROSA shall consist of:
 - i) Preparation as described in Chapter 1 of Title 4;
 - ii) Coordination as described in Chapter 2 of Title 4;
 - iii) Validation as described in Chapter 3 of Title 4;
- b. SEE TSOs shall implement the Agreed RAs in the subsequent IGMs and shall activate the Ordered RAs following the provisions in accordance with Articles 35 and 36.

(iv) Implementation and activation as described in Chapter 4 of Title 4.

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A CROSA may consist of two coordination runs.

(c) Fast activation process as described in Title 5. SEE TSOs shall have the right to modify an Ordered RA or may activate a new (X)RA following the fast activation process in accordance with.

6. Article 37.

Article 4

Intraday regional security analysis

1. In addition to ID CROSA, SEE CCR TSOs with SEE CCR RSCs shall perform intraday regional security analysis ('ID RSA').
2. The reference times shall be 00:00h, 08:00h, and 16:00h.
3. **The number of operational security assessments and the reference times referred to in paragraph 2 may be revised on a yearly basis subject to the agreement of the involved TSOs analysis**
- 4.1. The goal of the ID RSA is to provide SEE TSOs each hour of the day with the latest information for each timestamp of the operation day about the loading of the grid transmission system and previously undetected violations of operational security limits violations, which may serve as a trigger for a fast activation process.
- 5.2. This ID RSA shall be performed at each hour of the day for each timestamp until the rest end of the operation day.
- 6.3. ID RSA shall be performed on the updated IGMs containing the latest available forecast of generation and load, planned and outages, forced outages, Agreed RAs and Ordered RAs agreed XRAs.
4. RSCs For the purpose of ID RSA, each SEE TSO shall provide IGMs to SEE TSOs and the SEE RSC for all remaining timestamps of the operation day, respecting CGMM provisions and including all agreed XRAs resulting from the latest CROSA or fast activation process.
- 7.5. The SEE RSC shall merge updated IGMs into an updated CGM, perform a load flow and contingency analysis calculation and deliver the results to all SEE TSOs.

TITLE TITLE 3

DEFINITION AND DETERMINATION OF SEE XNES, XRAS, CONSTRAINTS AND CONTINGENCIES CROSA INPUTS

Article 5 Secured elements

Definition of XNEs

1. Secured elements represent a set of grid elements in the SEE CCR with a voltage level higher than or equal to 150 kV subject to the CROSA, on which operational security limits violations need to be managed in a coordinated way.
1. The secured elements are elements identified as cross-border relevant XNEs shall be:
2. all critical network elements (XNEs) ('CNEs') included in accordance with CSAM within the SEE CCR.
- 3.(a) Secured elements shall at least include all SEE Critical Network Elements final list of CNEs in accordance with the day-ahead and intraday capacity calculation methodology of the

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~~SEE CCR and XBRNEs in accordance with SEE CCR RDCT methodology: the CACM Regulation; and~~

~~(b) all other network elements within the control area of SEE TSOs with a voltage level higher than or equal to 150 kV, except for those network elements that are not CNEs and for which SEE TSOs agree that they are not cross-border relevant for the SEE CCR TSOs and may therefore be excluded, following the process referred to in Article 7(3)(b)(iii).~~

2. The list of XNEs shall contain all XNEs defined in paragraph 1.

Article 6 Definition of scanned elements

1. The scanned elements shall be network elements, which are not XNEs and on which CROSA shall not worsen eventually existing operational security violations, or create new operational security violations.
2. For CROSA purposes only, each SEE TSO shall set on each scanned element an individual virtual positive load margin, on top of the PATL defined in its IGM.
3. The list of scanned elements shall contain all scanned elements defined pursuant to paragraph 1.

Article 7 The establishment and maintenance of the lists of XNEs and scanned elements

1. By twelve months before the implementation of the first implementation step of this methodology, all SEE TSOs, with the support of the SEE RSC shall determine the list of XNEs and the list of scanned elements in accordance with Article 5 and Article 6.
2. By twelve months before the implementation of this methodology, all SEE TSOs, with the support of the SEE RSC, shall agree on a process for amendments and regular review of the list of XNEs and the list of scanned elements.
3. When establishing and maintaining the list of XNEs and the list of scanned elements, each SEE TSO shall have ~~at the right~~, for the network elements which are at least partly located in its control area:

~~(c) to include in the list of XNEs any network element with a voltage level higher than or equal to 150 kV without further agreement with other SEE TSOs, if the network element is modelled in the TSO's year-ahead IGM or in the IGM otherwise specified in the process pursuant to paragraph 2;~~

~~4-(d) to exclude any network element from the secured elements set that fulfils one of the following criteria: list of XNEs (except for CNEs) as follows:~~

- ~~a. Element is a power plant line;~~
- ~~b. Element is at the following network elements may be subject to exclusion without further agreement with other SEE TSOs: (i) radial line;~~
- ~~c. Element is connected to a DSO grid;~~
 - ~~(i) Element is a transformer lines, including those connecting power plants, (ii) distribution network elements and (iii) transformers, with the secondary voltage side lower than 450220 kV;~~

5. SEE CCR TSOs shall have the right at any time to exclude any element from the secured elements set, except mandatory elements defined in paragraph 3, if there is a common agreement between SEE CCR TSOs that such element may be excluded.

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6-(ii) ~~SEE CCR~~SEE TSOs, which are part of more than one CCR, shall have the right to exclude ~~from the list of XNEs any network element from the secured elements set which~~is subject to ~~CROSA~~regional operational security coordination within other CCRs, CCR(s). In such case, the corresponding SEE TSO shall inform the TSOs and RSC(s) of the other CCR(s), about the network elements it excluded.

7. ~~The list of excluded elements from the secured elements set shall be shared with the respective~~SEE CCR RSCs and among SEE CCR TSOs.

(iii) ~~Each SEE CCR TSO shall have the right to exclude any~~elements from the list of XNEs (except for CNEs) if there is a common agreement amongst SEE TSOs that such elements can be excluded;

8. ~~to include any element with a voltage level higher than or equal to 150 kV in the secured elements set.~~

Article 6 Scanned elements

4. ~~Scanned elements represent a set~~list of elements on which CROSA shall not create new operational security limits violations or worsen any existing violation. Each SEE CCR TSO may, for CROSA purposes only, deviate from this by setting individual thresholds for the scanned elements of its IGM.

(c) ~~SEE CCR TSOs shall have the right at any time to include any~~any network element excluded from the ~~secured elements set~~list of XNEs;

2. ~~to include in the list of scanned elements set.~~

3-(f) ~~SEE CCR TSOs shall have the right at any time to include any~~any network element which is modelled in its IGM, with a voltage level lower than 150 kV in the scanned elements set, which is modelled in its IGM, providing justification for its inclusion. ~~220 kV that is not on the list of XNEs;~~

(g) ~~Article 7 The to exclude any network element from the list of secured~~scanned elements and;

(h) ~~to move any network element from its control area fulfilling the criteria for XNEs defined in Article 5 from the list of scanned elements to the list of XNEs.~~

Each SEE TSO shall have the right to include in the list of scanned elements

1-4. ~~After the implementation of the DA-ID SEE CCM and by 3 months after the approval of this methodology,~~SEE CCR TSOs with the support of the respective SEE CCR RSCs shall define the list of secured also overlapping XNEs which are declared as XNEs in other CCRs as well as other network elements and the list of scanned elements which are part of its observability area.

2-5. ~~When applying the process referred to in paragraph 2 and if a new network element with a voltage level higher than or equal to 450~~220 kV is commissioned, ~~it shall be included in the secured elements list, unless the SEE CCR TSO operating this network element decides not to include it~~shall decide on its inclusion in the secured elements list in accordance with list of XNEs pursuant to paragraph 2 while respecting Article 5.

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6. ~~If~~When applying the process referred to in paragraph 2 and if a new network element with a voltage level lower than ~~450220~~ kV is commissioned, the SEE CCR TSO operating this network element ~~can~~shall decide to include it on its inclusion in the list of scanned elements pursuant to paragraph 2 while respecting Article 6.

7. By applying the process referred to in paragraph 2, SEE TSOs shall update the list of XNEs and the list of scanned elements when necessary and inform the SEE RSC about the change. The list of XNEs and the list of scanned elements shall be reassessed by SEE TSOs at least once a year.

~~8. SEE TSOs shall share the list of XNEs and the list of scanned elements list in accordance with Article 6 with the SEE RSC for day-ahead and intraday CROSAs.~~

~~4.9. EachThe SEE CCR TSO/RSC shall have start using the right at any time to move any element it operates with a voltage level higher than or equal to 150 kV from newly shared list of XNEs and the list of scanned elements list to in the secured elements list next CROSA.~~

Article 8 Cross-border relevant network elements

1. The list of secured elements defined in accordance with Article 5, represents the list of cross-border relevant network elements of SEE CCR, hereafter 'SEE XNEs'.

2. XBRNEs as defined by the SEE CCR RDCT methodology are SEE XNEs for which the costs attributed to them shall be shared among the involved TSOs in accordance with the SEE CCR RDCT Cost Sharing Methodology.

3. Costs incurred for solving violations on SEE XNEs which are not identified as XBRNEs, shall be shared in accordance with the rules and criteria described in SEE Cost Sharing Methodology.

Article 9

Classification of remedial actions

~~1. 4.~~ Each SEE CCR TSO shall classify the RAs in accordance with ~~article~~Article 22 of the SO Regulation.

~~2. Article 10~~ RAs classified in categories (d), (h), (i) and (j) of Article 22(1) of the SO Regulation shall not be used for the ROSC process.

Article 9

Cross-border relevance of remedial actions

1. Within one month after the ~~secured elements set have list of XNEs has~~ been defined in accordance with Article ~~67~~, SEE CCR TSOs shall share with the SEE ~~RSCs~~RSC all potential RAs, designed in accordance with ~~article 14 of CSAM~~CSAM, which are at least sometimes able to address violations of current limits on XNEs. In doing so, each SEE TSO shall also consider the potential RAs recommended by the SEE RSC in accordance with Article 78(2)(a) of the SO Regulation. Each SEE TSO shall continuously assess the possibility for new potential RAs. All SEE TSOs and the SEE RSC shall commonly assess the possibility for new potential RAs at least on biannual basis.

2. All potential RAs identified pursuant to paragraph 1 shall be considered as cross-border relevant (XRAs), unless all SEE CCR TSOs unanimously agree that a potential RA is not cross-border relevant.

~~2.3. SEE TSOs, in coordination with the SEE CCR RSCs~~RSC, shall jointly assess the ~~relevance of potential RAs~~ shared by SEE CCR XRA affected TSOs in accordance for each XRA determined pursuant to paragraph ~~12~~.

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3. SEE CCR TSOs shall aim at agreeing on a qualitative approach in accordance with Article 11 to determine RAs that are deemed cross-border relevant and corresponding TSOs affected by those RAs.
4. If SEE CCR TSOs cannot agree on a qualitative approach, in accordance with Article 11, for a certain RA, a quantitative approach in accordance with Article 12 shall be used for this RA.
5. SEE CCR TSOs will jointly define and share with the SEE RSCs the list of RAs that are deemed cross-border relevant.
6. Reassessment of the list of cross-border relevant RAs shall be done on a yearly basis.
7. If a new RA is designed in day-ahead or intraday operation planning period, each SEE CCR TSO shall assess its relevance using quantitative approach in accordance with article 15 (5) of CSAM.
8. Remedial action influence factor computation for RAs described in paragraph 7 shall be performed on last available common grid model.
9. If a new RA is designed between two mandatory assessments and prior to day-ahead planning period, each SEE CCR TSO shall assess its relevance in accordance with Article 11. In case agreement cannot be reached the quantitative approach as described in accordance with Article 12 shall be used.
10. SEE CCR TSOs may delegate the task described in paragraph 7 to their respective SEE CCR RSCs.
11. If a new RA is designed during real time operation and if the system is in alert state in accordance with SO Regulation, the RA Connecting TSOs shall use quantitative assessment in order to identify if this RA is cross-border relevant. When doing this, the RA Connecting TSOs shall check that the activation of such RA does not lead to violations of operational security limits on elements of its observability area using either the last available common grid model or its model from the state estimator. If such analysis shows that activation of RAs may

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4. ~~cause violations on elements of its observability area, its activation has to be coordinated with the RAXRA affected TSOs for each XRA.~~

~~12. In an emergency state, SEE CCR TSOs shall apply the provision of article 16 (4) of CSAM.~~

~~13. Between two mandatory assessments of RAs, each SEE CCR TSO shall have the right to request an additional assessment of a RA providing justification for such a request to the RA Connecting TSO and respective SEE CCR RSCs.~~

~~14. During fast activation process, when a SEE CCR TSO proposes an XRA in accordance with paragraphs 3 and 4 of article 17 of the CSAM and when this TSO is the RA Connecting TSO as well as the only XRA affected TSO, the activation of this XRA shall not be subject to further coordination.~~

Article 11 Qualitative assessment of XRAs

1. ~~SEE CCR TSOs, with the support of SEE CCR RSCs, shall jointly establish a list of potential RAs provided by SEE CCR TSOs to SEE CCR RSCs in accordance with Article 10 (1).~~

2. ~~For each RA included in the list defined in paragraph 1:~~

a. ~~Each SEE CCR TSO shall individually assess the cross-border relevance of the RA on its own grid;~~

b. ~~RA Connecting TSO shall assess the cross-border relevance of the RA on the grid of other TSOs and also on its own grid;~~

~~5. If the RAs concerned XRA is quantifiable such as Redispatching, Countertrading RD and CT, change of set point on HVDC systems or change of taps on phase-shifting transformers, the quantity above which this RAXRA is deemed cross-border relevant having a significant effect on the grid control areas of other TSOs and its own grid control area has to be specified in accordance with article 15 (7) of CSAM.~~

6. ~~If SEE CCR TSOs cannot agree on XRA affected TSOs based on a qualitative approach in accordance with Article 10, quantitative approach in accordance with Article 11 shall be used to determine the XRA affected TSOs.~~

7. ~~SEE TSOs shall jointly define and share with the SEE RSC the list of XRA affected TSOs and any update to such list.~~

8. ~~SEE TSOs with the support of the SEE RSC, shall reassess the XRA affected TSOs at least on an annual basis.~~

9. ~~If a new potential RA is designed by a SEE TSO for its control area during real time operation and if the system is in alert state in accordance with Article 18 of the SO Regulation and determined as XRA pursuant to paragraph 2, the XRA connecting TSOs shall use quantitative assessment in order to identify the XRA affected TSOs. In doing so, the XRA connecting TSO shall check that the activation of such XRA does not lead to operational security violations on network elements of its observability area using either the latest available CGM or its model from the state estimator. If such analysis shows that the activation of a new XRA may cause operational security violations on network elements of its observability area, its activation has to be coordinated with the TSO(s) where the operational security violations occur.~~

10. ~~During real time operation, if the system is in emergency state and only when operational conditions allow it, when preparing restoring remedial actions each TSO shall assess the XRA affected TSOs.~~

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11. Between two mandatory assessments of XRA affected TSOs pursuant to paragraph 8, each SEE TSO shall have the right to request an additional assessment of XRA affected TSOs providing justification for such a request to the XRA connecting TSO and respective SEE RSC.
12. During fast activation process, when a SEE TSO proposes an XRA in emergency and alert state pursuant to CSAM and when this TSO is the XRA connecting TSO as well as the only XRA affected TSO, the activation of this XRA shall not be subject to further coordination. SEE TSOs and the SEE RSC shall be informed of the activation of such XRA.

Article 10 Qualitative assessment of XRA affected TSOs

1. For each XRA identified pursuant to Article 9(2):
 - (a) Each SEE TSO shall individually assess the effect of each XRA on its control area;
 - (b) Each XRA connecting TSO shall assess the effect of its XRAs on control areas of other SEE TSOs and also on its control area.
2. SEE TSOs may delegate the tasks described in paragraph 2.1 to their respective SEE CCR RSC.
3. Each When a SEE CCR TSO identifies that an XRA has a significant impact on its control area, it shall propose RAs, which it regards cross-border relevant providing inform the XRA connecting TSO and request that it be determined as XRA affected TSO and provide justification for their selection to RA Connecting such request.
4. If SEE TSOs:
 - 5.4. If reach a common agreement among SEE CCR TSOs is reached that an XRA has significant impact on a specific control area, then the RA is concerned TSO shall be defined as cross-border relevant and all XRA affected TSOs are identified TSO.
 6. If a RA is not proposed as cross-border relevant by an XRA connecting TSO receives no request from any other SEE CCR TSO, it is considered as non-cross-border relevant.
 - 7.5. If a RA is identified as cross-border relevant only by TSO to be determined as XRA affected TSO, the RA Connecting TSO, this XRA connecting TSO shall be considered as the only XRA affected TSO.

Article 11 Quantitative assessment of XRA affected TSOs

1. The SEE CCR TSOs RSC shall use the common grid models CGMs established in accordance with article Article 67 of the SO Regulation when computing remedial action influence factor quantifying the effect of XRAs on TSOs.
2. Each SEE CCR TSO shall provide a list of elements on which the influence of the RA shall be assessed. The Quantitative assessment of XRA affected TSOs shall be done at least on the XNEC element on all XNEs defined in accordance with article 15 (4) of CSAM.
- 3.2. The remedial action influence factor shall be calculated in accordance with article 15 (4) Articles 5 and article 15 (5) of CSAM for RAs for which agreement on using qualitative approach in accordance with Article 11 could not be reached. 7.

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4.3. If a RA~~an XRA~~ consists of a combination of actions, ~~its cross-border relevance~~ the quantitative assessment of XRA affected TSOs shall be ~~assessed~~done for the combined effect of the combination.

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5. SEE CCR TSOs may delegate the task of performing calculations of remedial action influence factors to the respective SEE CCR RSCs.

6. All RAs for which an influence factor for at least one XNEC is greater than the threshold defined in article 15 (5) of CSAM shall be considered as cross-border relevant, otherwise RAs shall be considered as non-cross-border relevant.

7. All SEE CCR TSOs that have at least one affected XNEC for which the remedial action influence factor is greater than the threshold ~~A TSO~~ shall be considered as XRA affected ~~TSOs~~ TSO if the RAIF calculated in accordance with article 15 (8) of CSAM.

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4. CSAM for this XRA is equal or higher than 5% on any XNE (in N-situation or contingency) for which this TSO is the XNE connecting TSO. This significance threshold may be reduced if agreed by SEE TSOs subject to the governance framework defined in Article 13-36.

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5. The RAIF referred to in paragraph 4 shall be calculated on the latest available CGM.

Article 12 Contingency list

1. Each SEE CCR TSO shall establish the list of contingencies (hereafter referred to as 'contingency list') to be simulated in operational security analysis. The contingency list shall be established in accordance with ~~article 40~~Article 33 of the CSAM, hereafter referred to as "Contingency List" SO Regulation.

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2. Each SEE CCR TSO shall provide the respective SEE RSCs ~~RSC~~ and SEE TSOs with the Contingency List ~~its contingency list~~ to be used in CROSA and shall inform the SEE RSCs ~~RSC~~ about any update of this list in accordance with article 11 of CSAM.

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3. SEE CCR RSCs shall use the latest Contingency Lists shared by the SEE CCR TSOs.

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3. ~~##~~In case a specific operational security violation on XNE or scanned element with specific contingency can be more efficiently addressed outside of the day-ahead and intraday CROSA, the SEE TSOs and SEE RSC may exclude the relevant XNECs and scanned elements associated with a contingency from the concerned day-ahead and intraday CROSA if there is a common agreement amongst SEE TSOs that such XNECs can be excluded.

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4. The SEE RSC shall start using the newly shared contingency lists in the next CROSA.

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TITLE 4

COORDINATED REGIONAL OPERATIONAL SECURITY ANALYSIS PROCESS

**CHAPTER 1
PREPARATION**

Article 14.13

Provision of the regional operational security CROSA inputs

1. Each SEE CCR TSO shall provide the following input data to the SEE CCR RSCs RSC:
 - a. IGM according to Article 14.14, including the operational security limits for each secured XNE and scanned element according to Articles 5 and 6;
 - b. Available remedial actions within his control area according to Article 16;
 - c. When relevant, System Constraints according to Article 17;
 - d. Secured XNEs and scanned elements according to Articles 5 and 6;
 - e. Contingency list according to Article 13.12;
 - f. Available XRAs within its control area according to Article 15;
 - g. Constraints on XRAs in accordance with Article 2(4) and Article 15; and
 - h. When relevant, system constraints according to Article 16.
2. The SEE RSC shall provide for each intraday CROSA the list of agreed XRAs from previous CROSAs archived by the SEE RSC in accordance with Article 30.
3. When providing information on XNEs and XRAs pursuant to paragraph 1(b) and (d) the connecting TSO shall also provide the information whether the concerned XNE or XRA is overlapping as determined pursuant to Article 28.
4. The input data pursuant to paragraph 1 shall cover all remaining hours for a relevant business day-timestamps of the operation day in case of day-ahead CROSA and all applicable timestamps of the operation day in case of intraday CROSA.
5. Each SEE TSOs TSO shall deliver or update when required the input data before for the commonly agreed process deadlines, second coordination run of the day-ahead CROSA and possible second coordination runs in intraday CROSAs in accordance with the provisions defined in Articles 14 to 17.
6. **Article 15** Within the timelines established pursuant to Article 18(4), all SEE TSOs and the SEE RSC shall define for each CROSA the common gate closure time by which the inputs pursuant to in paragraph 1 can be delivered and updated by SEE TSOs.

Article 14

Preparation and updates of IGMs by SEE TSOs

1. Each SEE CCR TSO shall prepare and deliver day-ahead and intraday IGMs for day-ahead and intraday coordinated regional operational security assessments CROSAs as defined in CSAM and the methodology accordance with article 70 (4) of SO Regulation CGMM.
2. SEE CCR TSOs shall have the right to perform. Each SEE TSO shall have the right to perform a local preliminary assessment pursuant to CSAM. Each SEE TSO shall have the right to include in

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its IGM the (X)RAs resulting from the local preliminary assessment performed before the day-ahead CROSA in accordance with the rules specified in CSAM.

3. In accordance with CSAM, each SEE TSO shall have the right to include in its IGM, the (X)RAs for which this TSO is the only XRA affected TSO and that are resulting from the local preliminary assessment performed by such SEE TSO at any time.

2. In accordance with CSAM, if a SEE TSO includes in its IGMs the (X)RA(s) resulting from the local preliminary assessments. When preparing IGMs, each SEE TSO shall have the right to include RAs resulting from pursuant to paragraph 2 and 3, the information on these local preliminary assessments in accordance with article 21 (3) of CSAM which were performed by SEE TSOs before the first day-ahead CROSA.

3. When preparing IGMs, SEE CCR TSOs shall have the right to include non-cross-border relevant remedial actions in accordance with article 21 (4) of CSAM resulting from local preliminary assessments performed by SEE CCR TSOs at any time.

4. If SEE CCR TSOs include Redispatching and Countertrading in their IGMs resulting from preliminary assessments in accordance with paragraph 2 and 3 of Article 15, the information on ordered Redispatching and Countertrading (X)RA(s) shall be shared among SEE CCR TSOs in order to and be clearly distinguishable in the IGM from the network topology initial state variables without these (X)RAs applied in accordance with article 70 (4) of the SO Regulation.

5. In case the methodology in accordance with article 21 of CSAM is amended as requested by article 21 (6) of CSAM, the provisions of the amended article 21 of CSAM shall suspend paragraph 2 and 3 of Article 15 if the amendment is related to these paragraphs.

5. The costs of (X)RAs included in IGM resulting from the local preliminary assessment shall not be included in the final costs to be shared in accordance with the cost sharing methodology.

6. In case paragraphs 2 and 3 are contradicting the provisions of CSAM, the relevant provisions from CSAM shall prevail.

6.7. If the result of the optimization contains Agreed RAs RAO results in agreed XRAs for the respective control area, each SEE TSO shall provide to the SEE CCR RSCs RSC an updated IGM with agreed XRAs between two coordination runs within one CROSA in accordance with article 33 (1)(c) of CSAM and articles 3 CGMM. The XRAs resulting from the first coordination run shall not be binding and 4 of CGMM shall be possible to be changed by the RAO during the following coordination run within the same CROSA if deemed necessary.

Article 16 Preparation and update of remedial actions by SEE TSOs

Article 15 Information on available XRAs

1. Each SEE CCR TSO shall make available remedial actions all XRAs as identified in Article 9(2) to the SEE CCR RSCs RSC, for each day-ahead and intraday coordinated regional operational security assessments CROSA, as defined in CSAM unless an XRA is not available pursuant to this article.

2. When identifying the RAs that whether the XRAs identified pursuant to Article 9(2) shall be made available for the day-ahead and intraday CROSAs, each SEE TSO shall take in consideration respect the following principles:

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a. Define the RAs in line with the categories of article 22 of SO Regulation considering the provisions stated in articles 10 and 11 of the SEE CCR RD & CT Methodology;

b.(a) Assess Each XRA connecting TSO shall assess the availability of the all its XRAs defined according to identified in Article 40:9(2);

c. Consider non-XRAs, as defined according to Article 10, which could have an impact on any of Each XRA connecting TSO may declare the secured or scanned element of his control area;

d. Assess the availability of the RAs which were available for the previously performed coordinated regional operational security assessments or capacity calculation of the same hour and the previously ANORAs;

e.(b) Not consider the RAs which are XRA as not available following in case it cannot be activated due to:

- i. an unforeseen event, or
- ii. unplanned or unplanned outage, or
- iii. a declaration of unavailability status done by a third party owning the remedial action XRA provider, or
- iv. any other cause outside of the responsibility of the SEE CCR TSOs;

f. Identify whether a RA provided to SEE CCR In case XRA is an overlapping XRA according to article 27 (9) of CSAM;

g. Identify whether a RA is shared, non-shared or conditionally shared.

(c) SEE CCR TSOs available, the XRA connecting TSO shall provide to the SEE RSC and other SEE TSOs the conditions for its availability and the underlying justification.

3. Each SEE TSO shall provide any relevant information for each RA available or conditionally available XRA for the purpose of day-ahead and intraday regional operational security coordination CROSA process that will reflect the technical, operational or procedural constraints of the RAs as defined in accordance with Article 2.

4. If relevant, each Each SEE CCR TSO shall also provide to, for the SEE CCR RSCs updated list purpose of RAs at the end of any day-ahead and intraday CROSA, the information on the available volume of XRAs considering the constraints of XRAs as defined in accordance with Article 2.

5. SEE TSOs and the SEE RSC shall agree and define a detailed specification of information requirements for XRAs needed for each CROSA. This shall include a predefined set of conditions for conditionally available XRAs.

4.6. In case of a second coordination run of the coordination stage of Day-ahead or Intraday CROSA, each SEE TSO shall provide to the SEE RSC an updated information on available XRAs, considering:

a.(a) The agreed outcome of the latest coordination run for the XRAs in accordance with Article 33:27 and 34:28;

b.(b) Any update of XRA availability related to unplanned or forced outages or changes of outage schedules of relevant assets;

c.(c) Latest Any update of available XRA volumes related to the latest schedules of load and generation.

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7. Article 17 In case XRAs are owned or provided by a third party, such third party XRA providers shall provide to the XRA connecting TSOs best up-to-date information on the availability of their XRAs, including all the necessary information that is required for CROSAs. This information shall be provided by the deadline determined by the XRA connecting TSO, which shall be shortly before the gate closure time referred to in Article 13(6). The provided information shall include at least the following:

- (a) Available volume of XRAs;
- (b) Technical characteristics and constraints of XRAs;
- (c) Information on prices or costs of XRAs, which shall enable the XRA connecting TSOs and the SEE RSC the estimation of total costs of XRAs subject to their optimal and/or ordered volume.

Article 16 System constraints

1. ~~Each SEE CCR TSO shall have the right to make available to SEE CCR RSCs System Constraints~~ TSOs may apply system constraints in accordance with Article 2 for the purpose of ~~stability or respecting operational security limits, voltages exceeding operational security other than thermal limits in the N-situation. Such system constraints shall be expressed as a current limit on a single XNE or a set of XNEs and after occurrence of a contingency from the Contingency List described in Article 13. scanned elements.~~
2. ~~The System Constraints system constraints introduced~~ for the purpose of dynamic stability, shall be defined based on the criteria ~~or for~~ dynamic system stability in accordance with ~~articles~~ Articles 38 and 39 of ~~the~~ SO Regulation.
3. ~~When Before~~ applying such ~~Systems~~ system constraints, the concerned ~~SEE TSO~~ shall provide to other SEE CCR TSOs and ~~SEE CCR RSCs~~ the reasoning of these ~~System Constraints~~ SEE RSC in a transparent manner ~~all the details and possible underlying studies on how the value of each specific system constraint was determined and calculated.~~
4. If relevant, each SEE CCR TSO shall provide to the SEE CCR RSCs ~~updated System Constraints, at the end of any coordination run of the coordination stage of day-ahead or intraday GROSAs.~~

Article 18 Preparation of secured and scanned elements and contingencies

1. ~~Each SEE CCR TSO shall make available the list of secured and scanned Elements for its control area to the SEE CCR RSCs for day-ahead and intraday coordinated regional operational security assessments in accordance with the principles defined in Article 7.~~
2. ~~Each SEE CCR TSO shall make available the Contingency List for its control area to the SEE CCR RSCs for day-ahead and intraday coordinated regional operational security assessments pursuant to the principles defined in Article 13 developed in line with CSAM.~~

Article 19 List of Agreed RAs

1. ~~The SEE CCR RSCs shall make available for day-ahead and intraday coordinated~~

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regional operational security assessments the list of Agreed RAs logged by SEE CCR RSCs in accordance with Article 36.

4. Article 20 When SEE TSOs propose a first amendment to this ROSC Methodology, they shall include in this proposal also the information on:

- (a) which TSOs need to apply system constraints;
- (b) which system constraints need to be applied and which operational security limits are represented in such system constraints;
- (c) justification on why these system constraints need to be applied in CROSAs and why other measures are not sufficient or appropriate; and
- (d) information about possible long-term measures to mitigate the need for system constraints.

Article 17

Consistency and quality check of the input data

- 1. The SEE CCR RSCs shall assess and monitor the consistency and quality of each input data file provided by each SEE CCR TSO in accordance with CGMM and CSAM.
- 2. The SEE CCR RSCs shall monitor if the Agreed RAs are included in the IGMs provided by each SEE CCR TSO.
- 3. The SEE CCR RSCs and SEE CCR TSOs shall inform the concerned SEE CCR TSOs on the identified issues in accordance with pursuant to paragraphs 1 and 2 in an appropriate timeframe before starting the remedial action optimization to give SEE CCR TSOs the opportunity to correct these errors or inconsistencies and provided provide updated IGM input files.

CHAPTER 2

COORDINATION

Article 21-18

General provisions of coordination process

- 1. The SEE CCR TSOs shall perform the day-ahead and intraday CROSA in accordance with articles 23 and 24 of CSAM.
- 2. At the day-ahead stage, CROSA will include two coordination runs and at the each intraday stage CROSA will include at least one coordination run. Each coordination run will consist of the following steps:
 - a. Building of the CGMs by the SEE CCR RSCs in accordance with CGMM;
 - b. Running power performing the load flow and security contingency analysis in accordance with Article 2219;
 - c. Remedial actions optimization in accordance with Articles 2320 to 3026;
 - d. Remedial actions coordination of XRAs in accordance with Article 3427;
 - e. Inter-CCR coordination in accordance with Article 28.

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3. The RAO of each CROSA shall use all available XRAs as identified in accordance with Articles 9 to 11 and Article 15. All recommended XRAs that are the result of the RAO shall be considered for the purpose of subsequent processes, i.e. coordination of XRAs, validation, inter-CCR coordination and determination of costs for cost sharing.
4. All SEE TSOs with the support of the SEE RSC shall jointly define the timeline of each step of the day-ahead and intraday CROSA, in accordance with CSAM and CGMM. The timings shall be published on the ENTSO-E website.

~~3. In accordance with Article 32:~~

- ~~3. Each SEE CCR TSO shall update, during the input data for the second coordination run in the day-ahead stage in accordance with the provisions defined in the Chapter 1 of Title 4.~~
- ~~4.5. In the Intraday/intraday CROSA, the SEE CCR TSOs and SEE CCR RSCs/RSC shall reassess the ANORAs in accordance with Article 36 and that were agreed in the day-ahead CROSA or previous Intraday CROSA/intraday CROSA as well as other available XRAs (except ordered XRAs), for the period until relevant for the results of the following Intraday/intraday CROSA are available.~~
- ~~5.6. Information about Ordered RAs/ordered XRAs and ANORAs during day-ahead and Intraday/intraday CROSA shall be logged/archived by the SEE CCR RSCs/RSC.~~

Article 22 Power flow and Operational security analysis

1. ~~The SEE CCR RSCs/RSC shall perform the power flow and operational security analysis by using the CGM built in accordance with CGMM. The security analysis will be performed considering the latest Contingency List/contingency list as well as the latest list of secured XNEs and scanned elements provided by the SEE CCR TSOs.~~
2. ~~Operational security analysis shall be performed by applying the AC load flow calculation. For the eventual cases of AC load flow divergence (at the particular contingencies), DC load flow can be used as the fall-back solution.~~
- ~~2.3. The SEE CCR RSCs/RSC shall provide to all SEE CCR TSOs the power flow and operational security analysis results. These results shall contain, at least:~~
 - ~~(a) applied current limits for XNEs and scanned elements;~~
 - ~~(b) current loading of the XNEs and scanned elements with contingencies;~~
 - ~~(c) applied voltage limits;~~
 - ~~(d) voltages calculated on the CGM;~~
 - ~~(e) cases of AC load flow divergence and possible fall-back DC load flow results.~~
- ~~3.4. SEE CCR TSOs shall have the opportunity to validate the power flow and operational security analysis results. This validation aims at identifying errors in input mistakes/data, which would make the outcomes/outcome of the operational security analysis non-realistic and to give SEE CCR TSOs the opportunity to correct these errors. In case of the detection of errors in input data, the concerned SEE TSOs shall update their input data.~~

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Article 23 Optimisation of remedial actions

4. During remedial

Remedial action optimization the following optimization variables shall be considered: optimisation

- a) Switching states of topological measures;
- b) Adjustment of PSTs tap position;
- c) Set point of HVDC;
- d) Amount and localization of countertrading and redispatching.

2. Topological measures are defined as follows:

- a) Opening or closing one or more line(s), cable(s), transformer(s), busbar coupler(s) or
- b) Switching one or more network element(s) from one busbar to another

3.1. SEE CCR TSOs and the SEE CCR RSCs RSC shall optimise RAs XRAs in order to identify in a coordinated way the most effective and economically efficient RAs XRAs, based on the following principles:

- a. (a) The remedial action optimisation (RAO) of RAs XRAs shall be performed with consideration of all available RAs XRAs in accordance with Article 15;
- b. (b) The optimisation is time-coupled RAO shall consider all constraints on XRAs in accordance with Article 24 21;
- c. (c) The optimisation of remedial actions The RAO shall aim at relieving operational security limit violations on secured elements XNEs in accordance with Article 26 22;
- d. (d) The optimisation RAO shall not create additional operational security limit violations on secured XNEs and scanned elements in accordance with Article 26 23;
- e. (e) The optimisation RAO shall aim at ensuring economic efficiency by minimising direct the incurred costs of XRAs as well as the effectiveness of the XRAs to address operational security violations in accordance with Article 27 24;
- f. The optimisation shall consider constraints of the RAs in accordance with Article 2 3);
- g. (f) The optimisation shall propose balanced RAs RAO shall ensure energy balance of XRAs in accordance with Article 28 25;
- h. The optimisation shall ensure the remedial action effectivity in accordance with article 29;
- i. (g) The optimisation The RAO shall take into account the impact of variations in forecasts and market activities in accordance with Article 30 26.

Article 24 Time coupled optimisation-21 Constraints on XRAs

4. The optimization of RAs RAO shall be time-coupled take into account all constraints of XRAs as determined in the identification of the Article 2 and provided by SEE TSOs in accordance with Article 13, including intertemporal constraints, when identifying the most effective and economically efficient RAs.

2.1. In the optimisation XRAs for day-ahead all hours of timestamps that day shall be being optimised.

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2. For The RAO for day-ahead CROSA shall optimise all timestamps of the operation day.
3. The RAO for intraday CROSA shall optimise all remaining hourstimestamps until the end of the operation day shall be optimised.
4. In the optimisationRAO for both day-ahead and intraday CROSA, any constraints in accordance with Article 2(4) on Agreed RAsordered XRAs from previous hourstimestamps shall be taken into account.

Article 25-22 **Relieving operational security limit violations**

4. When performing Day-Ahead and Intraday CROSA, SEE CCR TSOs day-ahead and intraday CROSA, SEE CCR RSCs TSOs and the SEE RSC shall detect if power flows violate operational security limitsviolations. These violations can be addressed with RAO or during the coordination of XRAs pursuant to Article 27. The RAO shall aim to reduce the currents on XNEs in N-situation or after occurrence of a contingency.
- 2.1. In Intraday CROSA the detection down to the applicable current limits. The current limits shall represent the thermal limits (PATL and TATL) of power flows violations in accordance with paragraph 1 shall be performed on CGMs after removal of ANORAs an XNE, unless otherwise defined in this methodology.
2. For the detection of other constraintsThe thermal limits of XNEs shall be defined as follows:
 - (a) Seasonal limit, which means a fixed limit for all hours of each of the four seasons;
 - (b) Dynamic limit, which means a value per hour reflecting the varying ambient conditions;
 - (c) Fixed limits for all hours, in case of specific situations where the physical limit reflects the capability of overhead lines, cables or substation equipment installed in the primary power circuit (such as circuit-breaker, or disconnecter) with limits not sensitive to ambient conditions.
3. SEE TSOs shall aim at gradually phasing out the use of seasonal limits pursuant to paragraph 2(a) and replace them with dynamic limits pursuant to paragraph 2(b), when the benefits are greater than the costs. After the end of each calendar year, each TSO shall analyse for all its XNEs for which seasonal limits are applied and have been congested at least in 0.1% of timestamps in the previous calendar year, the expected reduction of remedial action costs and increase in economic surplus from single day-ahead and intraday coupling in the next 10 years resulting from the implementation of dynamic limits, and compare it with the cost of implementing dynamic limits. Each TSO shall provide this analysis to the SEE RSC and all SEE TSOs shall report these analyses to SEE regulatory authorities. If the cost benefit analysis, taking into account other planned investments, is positive, the concerned TSO shall implement the dynamic limits within three years after the end of the analysed calendar year. In case of interconnectors, the concerned TSOs shall cooperate in performing this analysis and implementation when applicable.
- 3.4. For addressing violations of other operational security limits, such as voltage violations, violations of short-circuit current limits or violations of stability limits, each SEE CCR TSO should perform local assessment and long-term operational security analysis in accordance with articlesArticles 31, 38 and 73 of the SO Regulation. These violations may be addressed in CROSA during the

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coordination of XRAs pursuant to Article 27. When addressing these violations by applying additional constraints on XRAs, the concerned SEE TSO shall provide to other SEE TSOs and the SEE RSC the reasoning for these constraints in a transparent manner.

4. Other constraints than current limits may be reflected into system constraints in accordance with Article 17.
5. The optimisation process shall aim at identifying RAs from a list of non-costly and costly RAs made available by SEE CCR TSOs in accordance with Article 16 to relieve operational security limit violations on secured elements, detected in accordance with paragraph 4.
5. SEE TSOs may also apply system constraints that reflect other operational security limits referred to in paragraph 4 for the purpose that RAO does not create new or worsen the existing underlying operational security violations. However, RAO shall not resolve these underlying violations as these shall be resolved in accordance with paragraph 4.
6. In intraday CROSA, the detection of current limit violations pursuant to paragraph 1 shall be performed on CGMs, which do not include ANORAs.
7. The RAO shall aim at identifying the optimal XRAs from the list of available XRAs in accordance with Article 15 to relieve violations of applicable current limits on XNEs in N-Situation and all contingencies, detected pursuant to paragraph 1.
- 6.8. Curative RAs XRAs shall be used for relieving operational security limit violations in contingency case on a secured element XNE as long as the temporarily admissible thermal limit of the TATL of a network element is not exceeded. Under consideration of all recommended preventive and curative RAs XRAs, the permanent admissible thermal limit PATL of the secured elements XNEs shall be respected.

Article 26 Avoid23

Avoiding additional violations of operational security limits violations on secured XNEs and scanned elements

1. The activation of RAs identified XRAs determined by the RAO for relieving operational security limit violations on secured elements XNEs:
 - a. (a) Shall shall not lead to additional operational security violations of operational security limits on secured XNEs and scanned elements; and
 - b. (b) May shall not worsen eventually existing operational security limits violations on scanned elements in accordance with Article 6.
2. On request of SEE TSOs and in case a scanned element constrains the RAO in a significant frequency, the SEE TSO who has defined this scanned element shall do everything in its power to reduce its constraining character, e.g. by increasing its virtual positive load margin.

Article 27 Minimise direct costs24 Economic efficiency and effectiveness

1. The optimisation shall aim at minimising the direct costs which are defined by the SEE CCR RDCT Methodology, resulting from RAO shall determine the indicative price or costs information of optimal set of XRAs and their volumes by respecting the costly RAs used following objectives (in order of priority):

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- 4. (a) aim to relieve operational security limit violations, in accordance with Article 22 and 23;
- (b) The minimisation aim to minimise total sum of costs and revenues of XRAs; and
- (c) aim to minimise the amount and volume of XRAs.

2. In case RAO is not able to find a solution given the three objectives defined in paragraph 1 it may relax these three objectives to the minimum extent required and in reverse order of priority in order to find a solution.

2.3. The RAO shall take into account the effectivity of RAs in accordance impact of XRAs on operational security violations with Article 29 remedial action influence factor (RAIF), which determine the impact of each RA on the power flow or current on XNEs and scanned elements as a function of their nominal power flow or current.

4. If RAO is not able to relieve all operational security violations, it shall provide all relevant information on the remaining operational security violations.

Article 28 Balance Energy balance of RAs XRAs

1. In order to guarantee the energy balance of the electricity system after activation of RAs XRAs, the optimisation RAO shall ensure that the identified RAs are balanced optimised XRAs do not create energy imbalances and can be activated in a balanced way that does not create energy imbalances in each timeframe.

Article 29 RA effectivity

- 1. The optimisation shall include computation of the flow sensitivity of RAs.
- 2. The flow sensitivity of a RA reflects the variations of power flow or current on secured and scanned elements as a function of their nominal power flow.
- 3. The flow sensitivity of a RA shall be balanced with their direct costs in order to ensure the selection of the most economically efficient and technically effective RAs.
- 4. The optimisation shall localize any remaining operational security limits violations and flows.
- 5. Costly RAs shall only be chosen to relieve operational security limits violations on network elements and not for the purpose of increasing market welfare.

Article 30 Robustness

- 1. Taking into account all the principles introduced in Articles 23 21 to 29 25, the optimisation RAO shall ensure that the identified RAs XRAs for relieving operational security limit violations on the secured elements XNEs are robust to variations of forecasts in consumption, RES production, and market activities and allow SEE CCR TSOs to operate their grid control area without violation of operational security limits violations.
- 2. In case of exceptional situations, such as, but not limited to, unpredictable arrival of a wind front, or snowfall on PV modules, where the accuracy of one or more of the forecasts variables included in the IGMs is insufficient to allow the correct identification of operational security limit violations, SEE CCR TSOs shall have the right to reduce thermal limits change the current limit of their XNEs

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referred to in Article 22 in regional day-ahead or intraday processes in accordance with articles 23 (4) and 24 (4) of CSAM. CSAM.

3. Concerned TSOs shall inform without undue delay SEE CCR TSOs and the SEE CCR RSCs RSC in case of application of paragraph 2, providing at least the following information:
 - a-(a) Elements XNEs and timestamps which are affected by the application of the paragraph 2;
 - b-(b) Estimate of the time for which application of paragraph 2 is needed.
4. In case of application of paragraph 2, the concerned SEE TSOs shall provide ex-post on request of any SEE TSO its justification about its decision to other SEE CCR TSOs and the SEE CCR RSCs RSC.

Article 31 Coordination of RAs

5. In Day-Ahead The SEE RSC shall monitor the need, the effectiveness and Intraday CROSA, SEE CCR TSOs in coordination with SEE CCR RSCs, shall manage in a coordinated way operational security violations on the impact of the reduction of current limits applied pursuant to paragraph 2 and report to all secured elements considering SEE TSO(s). Subject to this report, all RAs SEE TSOs may agree, in accordance with article 17 of CSAM. To this end, SEE CCR RSCs shall make recommendations for governance rules pursuant to Article 36, to exclude additional costs of XRAs resulting from reduced current limits from cost sharing.

Article 27 Coordination of XRAs

1. The SEE RSC shall recommend the implementation of the most effective and economically efficient RAs to the concerned TSOs according to the result of the optimisation in accordance with Article 23. XRAs identified by the RAO to the XRA connecting TSOs and inform at least all XRA affected TSOs about this recommendation.
2. During each CROSA, RA Connecting TSOs and XRA affected TSOs shall decide whether to agree or reject proposed RAs in accordance with article CSAM, Article 78 (4) of the SO Regulation and article 17 Article 42(2) of CSAM.
3. In case all RA Connecting TSOs and XRA affected TSOs agree on a proposed RA, this RA is deemed validated by SEE CCR TSOs.
- 4.2. If a SEE CCR TSO rejects a RA proposed by SEE CCR RSCs, the reasons shall be justified, documented and provided to SEE CCR RSCs, in accordance with article 78 (4) of the SO Electricity Regulation. during each CROSA, the recommended XRAs shall be considered as agreed, except where it is rejected by:
 - (a) any XRA affected TSO (including XRA connecting TSOs) on the grounds that the implementation of a specific XRA would result in operational security violations;
 - (b) the XRA connecting TSO on the grounds that the recommended XRA is no longer available.
3. If a SEE TSO rejects a recommended XRAs, it shall provide to the SEE RSC and other SEE TSOs clear reasons for rejection, including the evidence for the claimed grounds of rejection.

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4. If a SEE TSO rejects a recommended XRAs, except in the case of an unavailability of the proposed XRA, the SEE RSC in coordination with the respective SEE TSO shall perform an ex-post assessment, at the request of any SEE TSO or the SEE RSC, to determine the additional costs and impact resulting from the rejected XRA on the congestion. These costs and impact shall be compared with the costs (and impact on congestion) of possible (X)RAs not recommended by the SEE RSC which would avoid the rejection of a recommended XRA. If a recommended XRA is frequently rejected by a SEE TSO due to a specific reason, the SEE RSC in coordination with the rejecting SEE TSO shall perform an ex-post assessment as described above. The rejecting SEE TSO shall also propose and apply mitigating measures to avoid similar rejections in future.
5. In case of rejection of a proposed RA recommended XRAs, the concerned SEE CCR TSOs shall coordinate with the SEE CCR RSCs RSC and other SEE CCR TSOs to identify and plan alternative RAs XRAs taking into account cost and efficiency to relieve the operational security limits violations in a coordinated way in accordance with SEE CCR ROSC Methodology and article 17 (7) of CSAM this methodology and CSAM. In accordance with Article 78(2)(a) of SO Regulation, the SEE RSC may recommend alternative XRAs other than those identified by the concerned SEE TSO(s).

Article 32-28 Inter-CCR coordination

1. In accordance with the CSAM, the SEE CCR TSOs RSC and relevant other RSC(s) in coordination with SEE CCR RSCs TSOs shall relieve operational security limits violations on overlapping XNEs and shall coordinate XRA overlapping XRAs impacting these overlapping XNEs in.
 1. In accordance with the proposal for amendment to be developed in accordance with article 27(3) of CSAM:
 2. the SEE CCR TSOs and SEE CCR RSCs RSC shall perform the coordinated cross-regional operational security assessment in accordance with article 30 of with relevant other RSC(s). In doing so, the SEE RSC shall consider and coordinate with relevant other RSC(s) the use of XRAs available in the concerned CCRs.
 - 2.3. The SEE RSC in coordination with XRA connecting TSOs and XNE connecting TSOs shall assess whether the concerned XRAs and XNEs are overlapping according to CSAM.

CHAPTER 3 VALIDATION

Article 33-29 Validation session

1. 4. In the end of the day-ahead CROSA in accordance with article 33 (1)(f) of CSAM, a session maybe be hosted by SEE CCR RSCs in order to the SEE RSC and SEE TSOs shall consolidate results of the day-ahead CROSA and for SEE CCR TSOs to reach a final agreement and acknowledge RA that validate XRAs that have been agreed during the day-ahead CROSA.

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Article 34-30 Outcome of validation

1. All Ordered RAs and The SEE RSC shall archive all ordered XRAs and ANORAs shall be logged after the validation session.
2. Remaining violations of The SEE RSC shall report any remaining operational security limits must be reported. The violations. Based on this input, SEE TSOs shall specify next steps shall be specified and which may include, but not limited to, an intraday CROSA or interim fast activation process.
3. The SEE CCR RSCs RSC shall ensure the availability of results and decisions to all SEE CCR TSOs.
4. The SEE CCR RSCs RSC shall archive all necessary data for the yearly report in accordance with article Article 17 of the SO Regulation.

CHAPTER 4 IMPLEMENTATION OF REMEDIAL ACTIONS

Article 35-31 Activation of remedial actions

1. The activation of XRAs within the day-ahead and intraday coordination procedure shall be performed in the following sequence:
 - a) The RSC shall use the results of coordination and optimisation of XRAs and establish a list of recommended XRAs for each SEE CCR TSOs and submit these lists to them;
 - b) Based on this list of recommended XRAs, each TSO shall establish a list of planned XRAs taking into account the time constraints for ordering and activation of these XRAs;
 - c) From the list of planned XRAs, SEE CCR TSOs shall order XRAs at the latest possible time taking into account the activation time constraints of the resources and the timing of the next coordinated regional coordinated security assessment.
2. The SEE CCR TSOs shall provide the list of ordered XRAs to the RSC. In turn, the RSC shall establish the cross-border schedules resulting from the activation of these XRAs and provide this information to TSOs which shall update the cross-border schedules as defined in Article 112 of the SO Regulation;
4. The SEE CCR TSOs shall update in a coordinated manner the available cross-zonal capacities within the intraday or balancing timeframe to take into account the use of these capacities to facilitate cross-border schedules reflecting the activation of XRAs.
5. The RSC shall monitor occurrences of uncoordinated XRA activations in the semi-annual report.
 6. Once the XRAs have been ordered and activated by the concerned SEE CCR TSOs, these XRAs shall be included in the SEE CCR TSOs IGM(s) and CGM in accordance with the requirements of the SO Regulation. Therefore, ordered XRAs shall be considered for the next coordinated regional operational security assessment according to the methodologies pursuant to Article 75(1) and Article 76(1) of the SO Regulation.
 7. The effect of planned and ordered XRAs which have been activated shall be taken into account in the individual grid models for the subsequent intraday capacity calculation processes.
8. I_RA Connecting Each XRA connecting TSO shall activate RAs XRAs at the latest time compatible with technical, operational and procedural constraints of the resources in accordance with article 19 of CSAM.
9. In case of activating Redispatching or Countertrading, the RA connecting TSO shall apply the provisions of article 14 of SEE CCR RDCT Methodology.

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~~40.2. Each SEE CCR In fast activation process, each SEE TSO shall have the right to request a reassessment of Ordered RAs ordered XRAs or already activated RAs XRAs in case the RAs XRAs are not required anymore and considering technical, operational and procedural constraints. XRA affected TSOs shall reassess the Ordered RAs ordered XRAs via fast activation process in accordance with Article 37.33.~~

~~41. The SEE CCR TSOs shall update in a coordinated manner the available cross-zonal capacities within the intraday or balancing timeframe by taking account the activation of XRAs. The updated capacities shall not aggravate the operational security.~~

3. In order to prevent the effect of activated XRAs on operational security to be diminished by additional cross-zonal trade SEE TSOs may:

- (a) prevent the netting of cross-border schedules, which result from activated XRAs, with cross-zonal capacities and prevent that these schedules increase cross-zonal capacities in the directions in which additional trade could worsen operational security;
- (b) as a last resort measure, modify cross-zonal capacities outside the coordinated capacity calculation process pursuant to the day-ahead and intraday capacity calculation methodology of the SEE CCR, if:
 - i. waiting for the next coordinated capacity calculation would endanger operational security; and
 - ii. additional cross-zonal trade would create operational security violations which would not be possible to be addressed with available XRAs.

Article 36.32 Consideration of remedial actions in next IGM

1. All Agreed RAs agreed XRAs shall be classified based on a possibility of their reassessment in later CROSA:

~~2.(a)~~ If activation time of an RA agreed XRA prevents waiting for the next CROSA for possible reassessment, then the RA such XRA shall be classified as Ordered RAs ordered XRA. Only fast activation process can change the status of an Ordered RAs such ordered XRA;

~~3.(b)~~ If a reassessment of an agreed XRAs in the RA in next CROSA is a possibility possible, then the RA such XRA shall be classified as ANORA.

~~4.2.~~ Each SEE CCR TSO shall include all RAs agreed XRAs determined during the latest CROSA in the intraday IGMs according to the provision of articles 20 and 21 of as provided in CSAM. Information about all RAs agreed XRAs determined during day-ahead and intraday CROSA shall be logged archived by the SEE CCR RSCs RSC.

~~5.3.~~ The SEE CCR RSCs RSC shall monitor the inclusion of Agreed RAs agreed XRAs into IGMs in accordance with article 28 of CSAM.

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TITLE 5 FAST ACTIVATION PROCESS

Article 37-33 Fast activation process

1. The fast activation process is defined as a process activated in real time, or very close to it, to relieve physical congestion due to sudden critical situations (such as, but not limited to, an unplanned outage in real time or a relevant forecast error), that lead to overloads and requires fast actions, which cannot be effectively and promptly treated with the regular process.
2. A SEE CCR TSO shall trigger the fast activation process to relieve operational security limit violation(s) in case the detection of the physical congestion occurs:
 - a. Between CROSA cycles and a fast activation of a XRAs is required because it cannot wait for the next CROSA;
 - b. After the last CROSA.
- 3.1. The fast activation process shall also be considered as a fallback solution for situations where coordination through the SEE CCR RSCs CROSA is no longer possible due to insufficient time and the regular process described in Article 24-18 could not be properly applied.
2. A SEE CCR In case of new circumstances (determined in paragraph 3) which lead to detection of operational security violations on XNEs (in N-situation or after occurrence of a contingency):
 - (a) between two CROSAs, when a fast activation of XRAs is required because it cannot wait for the next CROSA; or
 - (b) after the latest CROSA,the XNE connecting TSO shall trigger the fast activation process in the case that an Ordered RA is not to relieve operational security violations on such XNEs.
3. The fast activation process can be triggered for the following circumstances:
 - (a) The ordered XRA and is not no longer available anymore due to unexpected technical unavailability of the underlying assets and alternative XRAs need to be activated; and
 - 4.(b) New operational security violations have been detected and they cannot be resolved with the next CROSA.
- 5.4. During the fast activation process, the XRA connecting TSOs and XRA affected TSOs shall coordinate among each other to identify, plan and activate alternative RAs or additional XRAs to relieve the operational security limits violations in a coordinated way while respecting the relevant provisions of article 17 of CSAM. New operational security violations as a result of those XRAs should be avoided.
- 6.5. In the fast activation process, the activation of preventive as well as curative XRAs may be applied.
- 7.6. In the fast activation process, each SEE CCR TSO may activate XRAs in direct coordination with XRA affected TSOs in accordance with the principles for coordination of XRAs described in CSAM.
- 8.7. The SEE CCR TSO activating XRAs through fast activation process shall provide the SEE CCR RSCs RSC the relevant information on which the decision to activate XRAs was based.
8. RAs agreed among affected SEE CCR TSOs during the The fast activation process shall end once XRAs to relieve the operational security violation are identified, coordinated and agreed. These XRAs will be considered as coordinated RAs and therefore agreed XRAs.

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9. SEE TSOs shall include the changes regarding activated XRAs resulting from fast activation process in the next relevant IGMs.

TITLE 6 DETERMINATION OF INPUTS FOR COSTS SHARING

Article 34 Inputs for cost sharing of XRAs

1. Cost sharing pursuant to the cost sharing methodology shall be applied for ordered XRAs resulting from each CROSA. Cost sharing shall also be applied to XRAs which have been ordered in fast activation process in a circumstance determined pursuant to Article 33(3)(a). Cost sharing pursuant to the cost sharing methodology shall not be applied to XRAs which have been ordered in fast activation process pursuant to Article 33(3)(b). The costs of these XRAs shall be borne by the XNE connecting TSO(s) triggering the fast activation process.
2. The cost sharing methodology shall be executed, independently, for each CROSA. The inputs for the cost sharing of XRAs from a given CROSA, such as CGM, ANORAs and ordered XRAs, shall be determined exclusively from the data used and resulting from this CROSA. The costs and/or revenues for each CROSA shall be determined only for ordered XRAs resulting from that CROSA.
3. SEE TSOs and the SEE RSC shall determine for each CROSA and for each XRA the total costs and/or revenues that shall be shared between SEE TSOs in accordance with the cost sharing methodology.
4. The costs and/or revenues of ordered XRAs shall be determined based on the prices and costs provided by TSOs and used in RAO and the volumes of ordered XRAs determined by RAO or subsequent coordination in accordance with Article 27.
5. Any deviations in costs and/or revenues resulting from the difference between:
(a) the prices and costs per volume, provided by TSOs for the execution of the RAO; and
(b) the final incurred costs per volume or settled costs per volume with third party XRA provider,
shall also be subject to cost sharing in accordance with the pursuant to the cost sharing methodology.
6. The deviations of costs and/or revenues resulting from deviations between ordered and delivered volume of XRAs shall not be subject to cost sharing.
7. All SEE TSOs and the SEE RSC shall monitor the deviations in costs and/or revenues of ordered XRAs as defined in paragraph 5 and identify systematic deviations or other potential abuse resulting from these deviations. In case of identified abuse, SEE TSOs shall have the right to reject a specific deviation to be included in cost sharing in accordance with the governance principles described in pursuant to Article 3836.
10. All SEE CCR TSOs will take into account and the Activated RAs in SEE RSC shall monitor the next relevant IGMs. New congestions as a result impact of those RAs should be avoided.

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TITLE 5 SHARING OF DEVIATIONS IN COSTS OF REMEDIAL ACTIONS

Article 38 General provisions for cost sharing of remedial actions

1. In general all the TSOs within the SEE CCR CCR commit themselves to coordinate between each other when planning and activating remedial actions in an enduring coordination process which goes from capacity calculation, through operational planning, till real time. It is therefore taken as a basic assumption, that TSOs shall act by respecting what was agreed in the previous phases of this coordination process and by following the coordination principles.
2. Even close to real-time, cross-border relevant remedial action or revenues of ordered XRAs as defined in paragraph 5 on the efficiency and effectiveness of RAO. This monitoring shall be coordinated (Article 74 SO regulation). Each TSO shall abstain from unilateral or uncoordinated redispatching and countertrading measures of cross-border relevance (Article 35 (4) CACM regulation). The coordination for bilateral/multilateral restoring remedial actions is made between two or more affected TSOs in real-time, with focus on the loss of economic efficiency as well as possible support effectiveness of RSCs.
3. Costs related to the activation of RA(s) used to relieve a congested element belonging to the optimized area (article 4) shall be shared among the SEE CCR TSOs according to the SEE CCR RDCT cost-sharing methodology developed under Article 74 of the CACM Regulation.
4. Costs related to the activation of RA(s) used to solve a congestion on an element which is not part of the optimized shall be borne by the requester of this RA.
5. Any coordinated Ordered RA resulting RAO arising from CROSA and fast activation process in accordance with this SEE CCR ROSC Methodology is subject to the cost sharing principles in accordance with SEE CCR RDCT Cost Sharing Methodology.
- 6.8. Each SEE CCR TSO and the SEE CCR RSCs shall provide all needed information about these* Ordered RAs to ensure the application of the SEE CCR RDCT Cost Sharing Methodology deviations.
9. ~~Title 6~~ For XRAs which have significant deviations pursuant to paragraph 5, all SEE TSOs and the SEE RSC shall identify mitigating measures to minimise the impact of these deviations on RAO and cost sharing.
10. All SEE TSOs shall establish, share and settle the provisional costs and/or revenues of ordered XRAs for cost sharing and settlement by no later than 30 days after the end of the calendar month. Any corrections to the provisional costs and/or revenues of ordered XRAs shall be established, shared and settled by no later than 90 days after the end of a given quarter. Any deviations in costs and revenues beyond this deadline shall not be subject to cost sharing pursuant to the cost sharing methodology.
11. All SEE TSOs shall determine and calculate all the parameters and data resulting from each CROSA that are required as inputs to cost sharing and as determined in cost sharing methodology, including particular versions of CGMs from each CROSA.

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TITLE 7 **MONITORING AND IMPLEMENTATION**

Article 39-35 **Reporting and monitoring**

1. RAs will be reported by SEE TSOs as described in the article 13 (4) of Transparency Regulation (EC) 543/2013 and the regulation for Energy Market Integrity and Transparency 1227/2011.

2. 1. SEE CCR RSCs The SEE RSC shall record and share all necessary data to enable SEE CCR TSOs and RSC(s) to fulfil the obligations regarding SEE CCR ROSC Methodology, SEE CCR RDCT Cost Sharing Methodology and article this methodology, the cost sharing methodology and Articles 14 and 17 of SO Regulation, the SO Regulation. This data shall be stored for at least 3 years and shall be made available to SEE regulatory authorities at request.

Article 40 Implementation

1. The implementation of the SEE CCR ROSC Methodology will consider:

2. Regulatory approval of this SEE CCR ROSC Methodology SEE TSOs and the SEE RSC shall perform regular monitoring of the efficiency, effectiveness and robustness of ROSC process after its implementation. This shall in particular include the following:

a. (a) Monitoring of the input data and inclusion of agreed XRAs in IGMs in accordance with article 6 of SO Regulation Articles 17 and 33;

b. (b) Regulatory approval Monitoring of SEE CCR RDCT Methodology deviations between indicative and realised prices and/or costs of XRAs and their impact on efficiency and effectiveness of RAO pursuant to Article 34;

c. (c) Monitoring the need, the effectiveness and the impact of the reduction of current limits due to variations of forecasts in consumption, RES production, and market activities in accordance with article 9 of CACM Regulation; Article 26;

d. Regulatory approval of SEE CCR RDCT Cost Sharing Methodology Monitoring the occurrence and the reasons for the use of the fast activation process pursuant to Article 33; and

e. Monitoring the need, the effectiveness and the impact of the operational security violations on scanned elements in accordance with Article 23.

3. SEE TSOs and the SEE RSC shall prepare and submit to SEE regulatory authorities on biannual basis a report on efficiency and effectiveness of ROSC process. This shall in particular include:

a. Reporting on the occurrence and impact of rejected XRAs in accordance with Article 27;

b. Reporting on the deviations between indicative and realised prices and/or costs of XRAs, their impact on efficiency and effectiveness of RAO as well as possible abuses and rejections to include those deviations in cost sharing in accordance with Article 34 and Article 35(2)(b);

c. Reporting on input data and inclusion of agreed XRAs in IGMs in accordance with article 9 of CACM Regulation; Article 35(2)(a);

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~~d.(d) Regulatory approval and implementation of the amendments of CSAM~~ Reporting on the robustness of XRAs in accordance with ~~article 27 (3), article 24 (6) and article 30 of CSAM;~~ Article 35(2)(c);

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~~(e) Development~~ Reporting on the occurrence and the reasons to use the fast activation process in accordance with Article 35(2)(e).

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4. SEE TSOs and the SEE RSC shall make available to SEE regulatory authorities at their request the following data regarding the ROSC process:

(a) For each timestamp, each CROSA and each XNEC relieved by RAO: The list of XNECs relieved by RAO, their loading before and after RAO, applicable current and flow limits;

(b) For each timestamp, each CROSA and each XRA recommended by RAO and ordered XRA: The prices and/or costs used in RAO, the volumes determined by RAO, the type of XRAs, the ordered volume of XRAs, the final settled cost of XRAs;

(c) The loading of XNEC defined in point (a) in real-time (based on e.g. real time snapshots).

5. SEE TSOs and the SEE RSC shall consult and coordinate with SEE regulatory authorities regarding detailed specification of the above reporting and data delivery requirements. SEE regulatory authorities shall have the right to request additional reporting and data delivery in coordination with SEE TSOs and the RSC, or to withdraw the requirement for specific reporting or data delivery, if they consider it no longer valid. SEE TSOs, the SEE RSC and regulatory authorities shall cooperate to avoid duplication of reporting and data delivery requirements.

6. By no later than 6 months after adoption of this ROSC Methodology, each SEE TSO shall develop a description of national rules and procedures for activation of remedial actions, with specific focus on redispatching actions. This description shall entail all relevant information that is required for understanding of these rules and procedures. For cost-based compensation of redispatching actions, the description shall clearly list the different cost categories, and identifies which cost categories are to be considered as incurred costs in the cost sharing methodology. It shall also include the planning on future evolution of these rules and assessment of potential incompatibilities with this ROSC Methodology. This assessment shall be updated on an annual basis and provided to SEE RSC, SEE TSOs and SEE regulatory authorities.

Article 36

Rules concerning governance and decision making among SEE TSOs

1. All SEE TSOs shall cooperate for the implementation and operation of this ROSC Methodology. This cooperation shall be carried out through common bodies where each TSO shall have at least one representative. The members of the common bodies shall aim to make unanimous decisions. Where unanimity cannot be reached, qualified majority voting based on the voting principles established in accordance with Article 5(5) of the SO Regulation shall apply.

2. All SEE TSOs shall establish a steering committee consisting of one representative from each SEE TSO. The steering committee shall make binding decisions on any matter or question related to the implementation and operation of this ROSC Methodology. The steering committee shall adopt rules governing its operation.

3. The steering committee shall also act as a body for settlement of disputes among SEE TSOs regarding the implementation and operation of this ROSC Methodology. The steering committee shall solve the problems and disputes regarding, but not limited to, the following issues:
- (a) Resolution of disputes on the interpretation of aspects of this methodology, which may not be clear;
 - (b) Resolution of disputes on design choices required for implementation and operation of this methodology, which are not defined in this methodology; and
 - (c) Resolution of possible disputes in the application and operation of this methodology, including the disputes related to the provisions ruling the day-to-day operation, but excluding the day-to-day operation itself.

Article 37 **Implementation**

1. This ROSC Methodology shall be implemented in two steps. In the first step, all SEE TSOs and the SEE RSC shall implement the first implementation step of the ROSC Methodology as described in paragraphs 2, 3 and 5. In the second step all SEE TSOs and the SEE RSC shall implement the second implementation step of the ROSC Methodology as described in paragraphs 4 and 5.
2. All SEE TSOs and the SEE RSC shall implement the first implementation step of the ROSC Methodology by 30 months after the adoption of this ROSC Methodology. The first implementation step of the ROSC Methodology shall fulfil at least the following requirements:
- (a) Implementation of day ahead CROSA;
 - (b) Implementation of cost sharing for day-ahead CROSA pursuant to cost sharing methodology;
 - (c) RAO for day-ahead CROSA must include at least optimisation of redispatching resources and phase shifting transformers.
3. The first implementation step of the ROSC Methodology may include some other simplification of the ROSC Methodology which do not significantly infringe the requirements pursuant to paragraph 2. These simplifications shall be consulted with SEE regulatory authorities.
4. All SEE TSOs and the SEE RSC shall implement the second implementation step of the ROSC Methodology by 54 months after the adoption of this ROSC Methodology. The second implementation step of the ROSC Methodology shall fulfil all the requirements of this ROSC Methodology and shall be complemented by the implementation of the cost sharing methodology.
5. The implementation process for both steps of the ROSC Methodology shall consist of the development, testing and implementation of the IT tools, as well as systems and procedures required to support the SEE CCR ROSC Methodology, CGMES format included and amendments of the CSAM;
2. All SEE CCR TSOs, with the support of and the SEE CCR RSCs, shall aim at regularly identifying the common functions and tools needed in accordance with paragraph 1(e). All relevant SEE CCR TSOs, with the support of the SEE CCR RSCs, shall:
- a. Decide on their development;
 - b. Provide for the needed budgets for their tendering, development and maintenance;
 - c. Agree on the rules applicable for the management of the development and

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maintenance, including evolutions.

3. The provisions of Article 32 will be applied after the amendments of article 27 (3) of CSAM are implemented.

4.6. During closely follow the implementation of SEE CCR, the ROSC Methodology, the SEE CCR TSOs with the support of SEE CCR RSCs shall jointly define the timeline of each step of the day-ahead and intraday regional operational security coordination, in the Core CCR and strive to adopt the same tools, systems and processes in accordance with the article 45 of the CSAM and publish them on their website the ROSC Methodology for the SEE CCR, when duly justified.

7. The TSOs of SEE CCR CCR Region shall implement the proposed methodology not by no later than 12 four months after the conditions specified in paragraph 1-3 adoption of this ROSC Methodology. all SEE TSOs and the SEE RSC shall develop a detailed implementation plan for this ROSC Methodology and update it regularly. The implementation plan shall define:

- (a) clear implementation tasks, milestones and not later than deliverables for which each SEE TSO and the SEE RSC is responsible individually; and
- (b) clear implementation tasks, milestones and deliverables for which SEE TSOs and the RSC are responsible jointly.

8. All SEE TSOs with the support of the SEE RSC shall regularly provide to SEE regulatory authorities the following information regarding the implementation of this ROSC Methodology:

- (a) the implementation plan as well as its regular updates;
- (b) the information on the implementation progress with regard to individual and joint implementation steps, milestones and deliverables;
- (c) without undue delay, the possible risks of implementation delay and possible mitigation options;
- (d) the end of individual entities responsible for delays in implementation tasks, milestones and deliverables with individual responsibilities; and

5-(c) the 2nd half of 2024 contribution of individual entities to the failure to meet the implementation tasks, milestones and deliverables with joint responsibilities.

9. After adoption of this ROSC Methodology and during its implementation, all SEE TSOs and the SEE RSC shall endeavour to continue to improve the existing SEE CSA and the existing day-ahead and ID RSA processes.

TITLE 8

ALLOCATION OF TASKS BY RSCS

Article 41-38

Appointment of RSCs RSC and delegation of tasks to RSCs RSC

1. All SEE TSOs of SEE CCR Region will appoint the regional security coordinator of SEE CCR Region SEleNe CC as RSC that will shall perform the tasks listed in this Proposal Article 77(3) of the SO Regulation in the SEE CCR.

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2. ~~In accordance with SEleNe CC shall perform the tasks listed in Article 77(3) of the SO Regulation all in the SEE CCR for all SEE TSOs in a transparent and non-discriminatory manner.~~

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2.3. ~~In accordance with Article 77(3) of the SO Regulation all SEE TSOs delegate the following tasks to the appointed RSC for the SEE CCR CCR related to TSO regional coordination in SEE CCR Region SEleNe CC:~~

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a) ~~regional operational security coordination ROSC~~ in accordance with Article 78 of the SO Regulation in order to support SEE TSOs to fulfil their obligations for the year-ahead, day-ahead and intraday ~~time frames~~ timeframes, in Article 34(3) and ~~accordance with Articles 34(3), 72 and 74 of the SO Regulation.~~

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b) ~~building~~ Building of ~~common grid model CGM~~ CGM, in accordance with Article 79 of the SO Regulation;

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c) ~~regional~~ Regional outage coordination in accordance with Article 80 of SO Regulation; ~~the SO Regulation, in order to support SEE TSOs to fulfil their obligations in Articles 98 and 100 of the SO Regulation; and~~

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d) ~~regional~~ Regional adequacy assessment ~~coordination~~ in accordance with Article 81 of the SO Regulation.

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~~(d) in order to support SEE TSOs to fulfil their obligations under Article 42 General rules concerning the governance and operation of regional security coordinator 107 of the SO Regulation.~~

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Article 39 Coordination and decision-making process

1. ~~The appointed SEE RSC for the SEE CCR shall be a service provider for all TSOs in SEE CCR Region. It cooperate in good faith and shall perform seek to adopt a fair and loyal treatment of the other Parties concerned.~~

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2. ~~The SEE RSC shall implement the provision of the tasks delegated to it by the in close consultation and cooperation with the SEE TSOs of SEE CCR Region listed in.~~

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4.3. ~~The SEE RSC and SEE TSOs shall establish a contractual framework for the implementation of this Proposal methodology.~~

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Article 40 Rules concerning governance and operation of RSCs

2.1. ~~The security of supply will remain shall be~~ the responsibility of each ~~individual TSO of the SEE TSOs~~ according to national laws and regulations. The responsibility for secure system operation and ~~for any decision taken based on services from the appointed RSC tasks performed by SEleNe CC shall remain with the SEE TSOs. Governance rules shall be further defined and agreed by SEE TSOs and the SEE RSC during the implementation of this ROSC Methodology.~~

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3.2. ~~For the avoidance of doubt, these rules shall not replace any provision of national or European law that may apply to any of the SEE TSOs. The provisions of these rules shall be complementary and interpreted in accordance with the applicable regulations. In case of contradictions between~~

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