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SEE CCR 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

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**November 2019**

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

### Whereas

- (1) Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereafter referred to as the “SO Regulation”) entered into force on 14 September 2017.
- (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 takes into account the principles and goals set out in the SO Regulation, as well as those of the CACM Regulation, 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.
- (4) In accordance with Article 76(1) of the SO Regulation, the ROSC methodology proposal “shall determine:
  - (a) *conditions and frequency of intraday coordination of operational security analysis and updates to the common grid model by the regional security coordinator;*
  - (b) *the methodology for the preparation of remedial actions managed in a coordinated way, considering their cross-border relevance as determined in accordance with Article 35 of Regulation (EU) 2015/1222, taking into account the requirements in Articles 20 to 23 and determining at least:*
    - (i) *the procedure for exchanging the information of the available remedial actions, between relevant TSOs and the regional security coordinator;*
    - (ii) *the classification of constraints and the remedial actions in accordance with Article 22;*
    - (iii) *the identification of the most effective and economically efficient remedial actions in case of 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) 2015/1222. As a general principle, costs of non-cross-border relevant congestions shall be borne by the TSO responsible for the given*

*control area and costs of relieving 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.”*

- (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. 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.”*
- (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) regional operational security coordination 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;
  - b) building of common grid model in accordance with Article 79 of SO Regulation;
  - c) regional outage coordination in accordance with Article 80 of SO Regulation, in order to support TSOs fulfil their obligations in Articles 98 and 100 of SO Regulation;
  - d) regional adequacy assessment in accordance with Article 81 of SO Regulation in order to support TSOs fulfil their obligations under Article 107
- (7) This ROSC methodology proposal considers and, where necessary, complements 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) 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 in accordance with Article 74 of the CACM Regulation.

- (9) The goal of the SO Regulation is to safeguard operational security, frequency quality and the efficient use of the interconnected system and resources. The ROSC methodology Proposal contributes and does not in any way hinder the achievement of the objectives of Article 4 of SO Regulation:
- a) Article 4(1)(a) of SO Regulation aims at determining common operational security requirements and principles. The SEE CCR ROSC methodology Proposal serves this objective by introducing common set of principles to be followed by TSOs in the Region for coordinated operational security coordination.
  - b) Article 4(1)(d) of SO Regulation aims at ensuring the conditions for maintaining operational security throughout the Union. The SEE CCR ROSC methodology Proposal serves this objective by setting out the rules for coordination both within the Region as well as on cross-regional level, thus ensuring operational security also beyond the limits of the Region.
  - c) 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) 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
  - e) Article 4(1)(g) of SO Regulation aims at ensuring and enhancing the 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.
  - f) 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.
- (10) In conclusion, this ROSC methodology proposal contributes to the general objectives of the SO Regulation.

**SUBMIT THE FOLLOWING ROSC METHODOLOGY PROPOSAL TO ALL REGULATORY AUTHORITIES:**

## **TITLE 1 General Provisions**

### **Article 1 Subject matter and scope**

1. This Proposal for regional operational security coordination 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 shall cover the 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 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), 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 shall monitor that TSOs participating in coordinated security analysis on a voluntary basis 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 Regulation.

### **Article 2 Definitions and interpretation**

1. For the purposes of this proposal, 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:
  - a) '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;

- b) 'preventive remedial action' or 'PRA' 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;
- 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) 'shared RA' means a RA available for the global optimisation to relieve operational security limit violations;
- i) 'conditionally shared RA' means a shared RA whose applicability depends on conditions provided by the TSO;
- j) 'non-shared RA' means a RA used to relieve specific operational security limits violations and not available for the global optimisation;
- k) 'set of remedial actions' means a combination of remedial actions that are to be activated as a whole to maintain operational security;
- l) 'coordinated regional operational security assessment' or 'regional CSA' means an operational security analysis performed by a RSC on a common grid model, 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' means the network elements significantly influenced by cross-zonal power exchanges whose operational security limits and contingencies are monitored during the capacity calculation process;
- o) 'area of common interest' or 'ACI' means the list of critical network elements pursuant to the coordinated Redispatching and Countertrading methodology (XNEs) developed in accordance with Article 35 of the CACM Regulation;
- p) 'Constraint' means a situation in which there is a need to prepare and activate a remedial action in order to respect operational security limits;
- q) 'cross-border relevant remedial action' or 'XRA' means a remedial action consisting of redispatching and countertrading identified as cross-border relevant and needs to be applied in a coordinated way;
- r) '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;

- s) 'cross-border relevant network element with contingency' or 'XNEC' means an XNE associated with a contingency. For the purpose of the CRCM, the term XNEC also cover the case where a XNE is used in operational security analysis without a specified contingency;
  - t) '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 the XNEC;
  - u) 'Loop 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 a different bidding zone;
  - v) '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;
  - w) '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;
  - x) '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;
  - y) '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;
  - z) '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.
2. The following types of constraints are considered in this methodology:
- a. 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 security limits. The constraints consist of the following:
    - Power flows and voltages exceeding operational security limits;
  - b. Constraints related to all aspects required to be taken into account when using RAs and classified as following:
    - i. Technical constraints are all the rules related to the technical limitations for resources for redispatching in accordance with article 5 of SEE CCR RDCT methodology or network elements;
    - ii. Operational constraints are all the operational conditions and usage rules taking into account the timings to operate the grid and avoid a premature ageing of the network elements;
    - iii. Procedural constraints are all the timing constraints due to local or regional processes;
    - iv. Legal constraints are the legal requirements stated in national laws regarding the priority of activation of RAs.

System constraints are all the optimisation constraints added by SEE CCR TSOs, expressed as flow limitation on one or a set of Secured and Scanned Elements and necessary to respect stability limits or operational security limits other than power flow limits. These are further detailed in Article 17.

3. Potential categories of remedial actions shall be classified in accordance with Article 22 of the SO 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. In this Proposal, unless the context requires otherwise:
  - a) the singular indicates the plural and vice versa;
  - b) the headings are inserted for convenience only and do not affect the interpretation of this ROSC methodology Proposal;
  - 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) any reference to legislation, regulations, directives, orders, instruments, codes or any other enactment shall include any modification, extension or re-enactment of it when in force.

## **Title 2 Regional Operational Security Coordination**

### **Article 3 General provisions for ROSC**

1. SEE CCR TSOs in coordination with SEE CCR RSCs shall execute the ROSC for each hour of the target day. The ROSC is composed of the following activities:
  - a. SEE CCR TSOs and SEE CCR RSCs shall perform day-ahead and intraday CROSAs. Intraday CROSAs shall be performed at least three times in intraday timeframe in accordance with article 24 of 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.
  - c. SEE TSOs shall have the right to modify an Ordered RA or may activate a new RA following the fast activation process in accordance with 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.
4. The goal of the ID RSA is to provide SEE TSOs each hour of the day with the latest information about the loading of the grid and previously undetected violations of operational security limits, which may serve as a trigger for a fast activation process.
5. This ID RSA shall be performed at each hour of the day for each timestamp till the rest of the day.
6. ID RSA shall be performed on the updated IGMs containing the latest available forecast of generation and load, planned and forced outages, Agreed RAs and Ordered RAs.
7. RSCs 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 3 Definition and determination of SEE XNEs, XRAs, constraints and contingencies**

### **Article 5 Secured elements**

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.
2. The secured elements are elements identified as cross-border relevant network elements (XNEs) in accordance with CSAM within the SEE CCR.
3. Secured elements shall at least include all SEE Critical Network Elements in accordance with day-ahead and intraday capacity calculation methodology of the SEE CCR and XBRNEs in accordance with SEE CCR RDCT methodology.
4. SEE CCR TSOs shall have a right to exclude any element from the secured elements set that fulfils one of the following criteria:
  - a. Element is a power plant line;
  - b. Element is a radial line;
  - c. Element is connected to a DSO grid;
  - d. Element is a transformer with the secondary voltage side lower than 150 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.
6. SEE CCR TSOs, which are part of more than one CCR, shall have the right to exclude any element from the secured elements set which is subject to CROSA within other CCRs.

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.
8. Each SEE CCR TSO shall have the right at any time to include any element with a voltage level higher than or equal to 150 kV in the secured elements set.

### **Article 6 Scanned elements**

1. Scanned elements represent a set 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.
2. SEE CCR TSOs shall have the right at any time to include any element excluded from the secured elements set in the scanned elements set.
3. SEE CCR TSOs shall have the right at any time to include any element with a voltage level lower than 150 kV in the scanned elements set, which is modelled in its IGM, providing justification for its inclusion.

### **Article 7 The list of secured elements and the list of scanned elements**

1. 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 elements and the list of scanned elements.
2. If a new element with a voltage level higher than or equal to 150 kV is commissioned, it shall be included in the secured elements list, unless the SEE CCR TSO operating this element decides not to include it in the secured elements list in accordance with Article 5.
3. If a new element with a voltage level lower than 150 kV is commissioned, the SEE CCR TSO operating this element can decide to include it in the scanned elements list in accordance with Article 6.
4. Each SEE CCR TSO shall have the right at any time to move any element it operates with a voltage level higher than or equal to 150 kV from the scanned elements list to the secured elements list.

### **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. Each SEE CCR TSO shall classify the RAs in accordance with article 22 of SO Regulation.

### **Article 10 Cross-border relevance of remedial actions**

1. Within one month after the secured elements set have been defined in accordance with Article 5, SEE CCR TSOs shall share with the SEE RSCs all potential RAs designed in accordance with article 14 of CSAM.
2. SEE CCR TSOs, in coordination with SEE CCR RSCs, shall jointly assess the relevance of potential RAs shared by SEE CCR TSOs in accordance to paragraph 1.
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

cause violations on elements of its observability area, its activation has to be coordinated with the RA affected TSOs.

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;
  - c. If the RAs is quantifiable such as Redispatching, Countertrading, change of set point on HVDC systems or change of taps on phase-shifting transformers, the quantity above which this RA is deemed cross-border relevant on the grid of other TSOs and its own grid has to be specified in accordance with article 15 (7) of CSAM;
3. SEE CCR TSOs may delegate the tasks described in paragraph 2 to their respective SEE CCR RSC.
4. Each SEE CCR TSO shall propose RAs, which it regards cross-border relevant providing justification for their selection to RA Connecting TSOs.
5. If a common agreement among SEE CCR TSOs is reached, then the RA is defined as cross-border relevant and all XRA affected TSOs are identified.
6. If a RA is not proposed as cross-border relevant by any SEE CCR TSO, it is considered as non-cross-border relevant.
7. If a RA is identified as cross-border relevant only by the RA Connecting TSO, this TSO shall be considered as the only XRA affected TSO.

### **Article 12 Quantitative assessment of XRAs**

1. SEE CCR TSOs shall use the common grid models established in accordance with article 67 of the SO Regulation when computing remedial action influence factor.

2. Each SEE CCR TSO shall provide a list of elements on which the influence of the RA shall be assessed. The assessment shall be done at least on the XNEC elements in accordance with article 15 (4) of CSAM.
3. The remedial action influence factor shall be calculated in accordance with article 15 (4) and article 15 (5) of CSAM for RAs for which agreement on using qualitative approach in accordance with Article 11 could not be reached.
4. If a RA consists of a combination of actions, its cross-border relevance shall be assessed for the effect of the combination.
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 shall be considered as XRA affected TSOs, in accordance with article 15 (8) of CSAM.

### **Article 13 Contingency list**

1. Each SEE CCR TSO shall establish the list of contingencies to be simulated in operational security analysis in accordance with article 10 of the CSAM, hereafter referred to as "Contingency List".
2. Each SEE CCR TSO shall provide the respective SEE RSCs with the Contingency List to be used in CROSA and shall inform the SEE RSCs about any update of this list in accordance with article 11 of CSAM.
3. SEE CCR RSCs shall use the latest Contingency Lists shared by the SEE CCR TSOs.

## **Title 4 Coordinated regional operational security analysis process**

### **Chapter 1 Preparation**

#### **Article 14 Provision of the regional operational security inputs**

1. Each SEE CCR TSO shall provide the following input data to SEE CCR RSCs:
  - a. IGM according to Article 15, including the operational security limits for each secured or 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 and scanned elements according to Articles 5 and 6;
  - e. Contingency list according to Article 13.
2. The input data shall cover all remaining hours for a relevant business day.

3. SEE TSOs shall deliver or update when required the input data before the commonly agreed process deadlines.

### **Article 15 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 as defined in CSAM and the methodology accordance with article 70 (1) of SO Regulation.
2. SEE CCR TSOs shall have the right to perform local preliminary assessments. When preparing IGMs, each SEE TSO shall have the right to include RAs resulting from 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 shall be shared among SEE CCR TSOs in order to be clearly distinguishable from the network topology without RAs applied in accordance with article 70 (4) of 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.
6. If the result of the optimization contains Agreed RAs for the respective control area each SEE TSO shall provide to SEE CCR RSCs updated IGM between two coordination runs in accordance with article 33 (1)(c) of CSAM and articles 3 and 4 of CGMM.

### **Article 16 Preparation and update of remedial actions by SEE TSOs**

1. Each SEE CCR TSO shall make available remedial actions to the SEE CCR RCSs for day-ahead and intraday coordinated regional operational security assessments as defined in CSAM.
2. When identifying the RAs that shall be made available, each SEE TSO shall take in consideration the following principles:
  - 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. Assess the availability of the XRAs defined according to Article 10;
  - c. Consider non-XRAs, as defined according to Article 10, which could have an impact on any of the secured or scanned element of his control area;

- d. Asses 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. Not consider the RAs which are not available following:
    - i. an unforeseen event, or
    - ii. an unplanned outage, or
    - iii. a declaration of unavailability status done by a third party owning the remedial action, or
    - iv. any other cause outside of the responsibility of the SEE CCR TSO;
  - f. Identify whether a RA provided to SEE CCR is an overlapping XRA according to article 27 (9) of CSAM;
  - g. Identify whether a RA is shared, non-shared or conditionally shared.
3. SEE CCR TSOs shall provide any relevant information for each RA for the purpose of day-ahead and intraday regional operational security coordination process that will reflect the technical, operational or procedural constraints of the RA as defined in accordance with Article 2.
  4. If relevant, each SEE CCR TSO shall provide to the SEE CCR RSCs updated list of RAs at the end of any coordination run of the coordination stage of DA or ID CROSA, considering
    - a. The agreed outcome of the last coordination run for the XRAs in accordance with Article 33 and 34;
    - b. Any unplanned or forced outages or changes of outage schedules of relevant assets;
    - c. Latest schedules of load and generation.

### **Article 17 System constraints**

1. Each SEE CCR TSO shall have the right to make available to SEE CCR RSCs System Constraints in accordance with Article 2 for the purpose of stability or operational security limits, voltages exceeding operational security limits in the N-situation and after occurrence of a contingency from the Contingency List described in Article 13.
2. The System Constraints, for the purpose of dynamic stability, shall be defined based on the criteria on dynamic system stability in accordance with articles 38 and 39 of SO Regulation.
3. When applying such System constraints, the concerned TSO shall provide to other SEE CCR TSOs and SEE CCR RSCs the reasoning of these System Constraints in a transparent manner.
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 CROSA.

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

## **Article 20 Consistency and quality check of the input data**

1. The SEE CCR RSCs shall assess the consistency and quality of each input data file provided by each SEE CCR TSO in accordance with CGMM and CSAM.
2. 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 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 an updated IGM.

## **Chapter 2 Coordination**

### **Article 21 General provisions of coordination process**

1. SEE CCR TSOs with the support of SEE CCR RSCs shall perform the day-ahead and Intraday CROSA in accordance with articles 23 and 24 of CSAM.
2. At day-ahead stage, CROSA will include two coordination runs and at the 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 flow and security analysis in accordance with Article 22;
  - c. Remedial actions optimization in accordance with Articles 23 to 30;
  - d. Remedial actions coordination in accordance with Article 31;
  - e. Inter-CCR coordination in accordance with Article 32.
3. Each SEE CCR TSO shall update 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. In the Intraday CROSA, SEE CCR TSOs and SEE CCR RSCs shall reassess the ANORAs in accordance with Article 36 and that were agreed in the day-ahead CROSA or previous Intraday CROSA for the period until the results of the following Intraday CROSA are available.
5. Information about Ordered RAs and ANORAs during day-ahead and Intraday CROSA shall be logged by SEE CCR RSCs

### **Article 22 Power flow and security analysis**

1. SEE CCR RSCs shall perform the power flow and security analysis by using the CGM built in accordance with CGMM. The security analysis will be performed considering the latest Contingency List as well as the latest list of secured and scanned elements provided by the SEE CCR TSOs.
2. SEE CCR RSCs shall provide to all SEE CCR TSOs the power flow and operational security analysis results.
3. SEE CCR TSOs shall have the opportunity to validate the power flow and operational security analysis results. This validation aims at identifying input mistakes which would make the outcomes of the operational security analysis non-realistic to give SEE CCR TSOs the opportunity to correct these errors.

### **Article 23 Optimisation of remedial actions**

1. During remedial action optimization the following optimization variables shall be considered:
  - 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. SEE CCR TSOs and SEE CCR RSCs shall optimise RAs in order to identify in a coordinated way the most effective and economically efficient RAs, based on following principles:
  - a. The optimisation of RAs shall be performed with consideration of all available RAs;
  - b. The optimisation is time-coupled in accordance with Article 24;
  - c. The optimisation of remedial actions shall aim at relieving operational security limit violations on secured elements in accordance with Article 26;
  - d. The optimisation shall not create additional operational security limit violations on secured and scanned elements in accordance with Article 26;
  - e. The optimisation shall aim at minimising direct costs in accordance with Article 27;
  - f. The optimisation shall consider constraints of the RAs in accordance with Article 2 (3);

- g. The optimisation shall propose balanced RAs in accordance with Article 28;
- h. The optimisation shall ensure the remedial action effectivity in accordance with article 29;
- i. The optimisation shall take into account the impact of variations in forecasts and market activities in accordance with Article 30.

### **Article 24 Time coupled optimisation**

1. The optimization of RAs shall be time-coupled in the identification of the most effective and economically efficient RAs.
2. In the optimisation for day-ahead all hours of that day shall be optimised.
3. For intraday all remaining hours until the end of the day shall be optimised.
4. In the optimisation for both day-ahead and intraday, any constraints in accordance with Article 2 on Agreed RAs from previous hours shall be taken into account.

### **Article 25 Relieving operational security limit violations**

1. When performing Day-Ahead and Intraday CROSA, SEE CCR TSOs and SEE CCR RSCs shall detect if power flows violate operational security limits in N-situation or after occurrence of a contingency.
2. In Intraday CROSA the detection of power flows violations in accordance with paragraph 1 shall be performed on CGMs after removal of ANORAs.
3. For the detection of other constraints, 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 articles 31, 38 and 73 of SO Regulation.
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 1.
6. Curative RAs shall be used for relieving operational security limit violations in contingency case on a secured element as long as the temporarily admissible thermal limit of the element is not exceeded. Under consideration of all recommended preventive and curative RAs, the permanent admissible thermal limit of the secured elements shall be respected.

### **Article 26 Avoid additional violations of operational security limits on secured and scanned elements**

1. The activation of RAs identified for relieving operational security limit violations on secured elements:

- a. Shall not lead to additional violations of operational security limits on secured and scanned elements;
- b. May not worsen existing operational security limits violations on scanned elements in accordance with Article 6.

### **Article 27 Minimise direct costs**

1. The optimisation shall aim at minimising the direct costs which are defined by the SEE CCR RDCT Methodology, resulting from the indicative price or costs information of the costly RAs used to relieve operational security limit violations.
2. The minimisation of costs shall take into account the effectivity of RAs in accordance with Article 29.

### **Article 28 Balance of RAs**

1. In order to guarantee the balance of the system after activation of RAs, the optimisation shall ensure that the identified RAs are balanced and can be activated in a balanced way 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 to 29, the optimisation shall ensure that the identified RAs for relieving operational security limit violations on the secured elements are robust to variations of forecasts in consumption, RES production, and market activities and allow SEE CCR TSOs to operate their grid without violation of operational security limits.
2. In case of exceptional situations, such as but not limited to unpredictable arrival of a wind front, 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 right to reduce thermal limits of their XNEs in

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

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

### **Article 31 Coordination of RAs**

1. In Day-Ahead and Intraday CROSA, SEE CCR TSOs in coordination with SEE CCR RSCs, shall manage in a coordinated way operational security violations on all secured elements considering all RAs in accordance with article 17 of CSAM. To this end, SEE CCR RSCs shall make recommendations for 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.
2. During each CROSA, RA Connecting TSOs and XRA affected TSOs shall decide whether to agree or reject proposed RAs in accordance with article 78 (4) of the SO Regulation and article 17 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. 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 Regulation.
5. In case of rejection of a proposed RA, the concerned SEE CCR TSOs shall coordinate with SEE CCR RSCs and other SEE CCR TSOs to identify and plan alternative RAs to relieve the operational security limits violations in a coordinated way in accordance with SEE CCR ROSC Methodology and article 17 (7) of CSAM.

### **Article 32 Inter-CCR coordination**

1. SEE CCR TSOs and SEE CCR RSCs shall relieve operational security limits violations on overlapping XNEs and shall coordinate XRA impacting these overlapping XNEs in accordance with the proposal for amendment to be developed in accordance with article 27(3) of CSAM.
2. SEE CCR TSOs and SEE CCR RSCs shall perform the coordinated cross-regional operational security assessment in accordance with article 30 of CSAM.

## **Chapter 3 Validation**

### **Article 33 Validation session**

1. 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 consolidate results of the day-ahead CROSA and for SEE CCR TSOs to reach a final agreement and acknowledge RA that have been agreed during the day-ahead CROSA.

### **Article 34 Outcome of validation**

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

## **Chapter 4 Implementation of remedial actions**

### **Article 35 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.
4. 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;
5. 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.
6. The RSC shall monitor occurrences of uncoordinated XRA activations in the semi-annual report.
7. 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.

8. 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.
9. RA Connecting TSO shall activate RAs at the latest time compatible with technical, operational and procedural constraints of the resources in accordance with article 19 of CSAM.
10. In case of activating Redispatching or Countertrading, the RA connecting TSO shall apply the provisions of article 14 of SEE CCR RDCT Methodology.
11. Each SEE CCR TSO shall have the right to request a reassessment of Ordered RAs or already activated RAs in case the RAs are not required anymore and considering technical, operational and procedural constraints. XRA affected TSO shall reassess the Ordered RAs via fast activation process in accordance with Article 37.
12. 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.

### **Article 36 Consideration of remedial actions in next IGM**

1. All Agreed RAs shall be classified based on a possibility of their reassessment in later CROSAs:
2. If activation time of an RA prevents waiting for next CROSA for possible reassessment, then the RA shall be classified as Ordered RAs. Only fast activation process can change the status of an Ordered RA;
3. If a reassessment of the RA in next CROSA is a possibility, then the RA shall be classified as ANORA.
4. Each SEE CCR TSO shall include all RAs agreed during latest CROSA in intraday IGMs according to the provision of articles 20 and 21 of CSAM. Information about all RAs agreed during day-ahead and intraday CROSA shall be logged by SEE CCR RSCs.
5. SEE CCR RSCs shall monitor the inclusion of Agreed RAs into IGMs in accordance with article 28 of CSAM.

### **Article 37 Fast activation process**

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.

1. 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.
2. The fast activation process shall also be considered as a fallback where coordination through the SEE CCR RSCs is no longer possible due to insufficient time and the regular process described in Article 21 could not be properly applied.
3. A SEE CCR TSO shall trigger the fast activation process in the case that an Ordered RA is an XRA and is not available anymore.
4. During the fast activation process, XRA affected TSOs shall coordinate among each other to identify, plan and activate alternative RAs to relieve the operational security limits violations in a coordinated way while respecting the relevant provisions of article 17 of CSAM.
5. In the fast activation process, the activation of preventive as well as curative XRAs may be applied.
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.
7. The SEE CCR TSO activating XRAs through fast activation process shall provide the SEE CCR RSCs the relevant information on which the decision was based.
8. RAs agreed among affected SEE CCR TSOs during the fast activation process shall be considered as coordinated RAs and therefore shall be subject to cost sharing in accordance with the principles described in Article 38.
9. SEE CCR TSOs will take into account the Activated RAs in the next relevant IGMs. New congestions as a result of those RAs should be avoided.

## **Title 5 Sharing of 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 shall be coordinated (Article 74 (1) 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 possible support 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 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. 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.

## **Title 6 Monitoring and implementation**

### **Article 39 Reporting**

1. RAs will be reported by SEE TSOs as described in the article 13 (1) of Transparency Regulation (EC) 543/2013 and the regulation for Energy Market Integrity and Transparency 1227/2011.
2. SEE CCR RSCs shall record and share all necessary data to enable SEE CCR TSOs to fulfil the obligations regarding SEE CCR ROSC Methodology, SEE CCR RDCT Cost Sharing Methodology and article 17 of SO Regulation.

### **Article 40 Implementation**

1. The implementation of the SEE CCR ROSC Methodology will consider:
  - a. Regulatory approval of this SEE CCR ROSC Methodology in accordance with article 6 of SO Regulation;
  - b. Regulatory approval of SEE CCR RDCT Methodology in accordance with article 9 of CACM Regulation;
  - c. Regulatory approval of SEE CCR RDCT Cost Sharing Methodology in accordance with article 9 of CACM Regulation;
  - d. Regulatory approval and implementation of the amendments of CSAM in accordance with article 27 (3), article 21 (6) and article 30 of CSAM;
  - e. Development, testing and implementation of the IT tools, 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 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 maintenance, including evolutions.
3. The provisions of Article 32 will be applied after the amendments of article 27 (3) of CSAM are implemented.
4. During the implementation of SEE CCR 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 accordance with the article 45 of the CSAM and publish them on their website.
5. The TSOs of SEE CCR CCR Region shall implement the proposed methodology not later than 12 months after the conditions specified in paragraph 1-3 and not later than the end of the 2<sup>nd</sup> half of 2021.

## **Title 7 Allocation of tasks by RSCs**

### **Article 41 Appointment of RSCs and delegation of tasks to RSCs**

1. All TSOs of SEE CCR Region will appoint the regional security coordinator of SEE CCR Region that will perform the tasks listed in this Proposal.
2. In accordance with Article 77(3) of the SO Regulation all TSOs delegate the following tasks to the appointed RSC for the SEE CCR CCR related to TSO regional coordination in SEE CCR Region:
  - a) regional operational security coordination 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
  - b) building of common grid model in accordance with Article 79 of SO Regulation;
  - c) regional outage coordination in accordance with Article 80 of SO Regulation;
  - d) regional adequacy assessment coordination in accordance with Article 81 of SO Regulation.

## **Article 42 General rules concerning the governance and operation of regional security coordinator**

1. The appointed RSC for the SEE CCR shall be a service provider for all TSOs in SEE CCR Region. It shall perform the tasks delegated to it by the TSOs of SEE CCR Region listed in this Proposal.
2. The security of supply will remain the responsibility of each individual TSO according to national laws and regulations. The responsibility for secure system operation and any decision taken based on services from the appointed RSC shall remain with the TSOs.
3. For the avoidance of doubt, these rules do not replace any provision of national or European law that may apply to any of the TSOs. The provisions of these rules shall be complementary and interpreted in accordance with the applicable regulations. In case of contradictions between these rules and the applicable laws and regulations, the provisions of these rules shall be amended accordingly.
4. All TSOs with services delegated to the appointed RSC shall enter into an agreement to define specific rules concerning the governance and operation of the regional security coordinator RSC for the SEE CCR CCR.

## **Title 8 Final provisions**

### **Article 43 Publication of this Proposal**

1. Upon approval by the competent regulatory authorities, each SEE CCR TSO shall publish this SEE CCR ROSC Methodology on the internet in accordance with article 8 (1) of SO Regulation.

### **Article 44 Language**

1. The reference language for this SEE CCR ROSC Methodology shall be English. For the avoidance of doubt, when SEE CCR TSOs need to translate this SEE CCR ROSC Methodology into their national language(s), in the event of inconsistencies between the English version published by SEE CCR TSOs in accordance with article 8 (1) of SO Regulation and any version in another language, the relevant SEE CCR TSOs shall, in accordance with national legislation be obliged to dispel any inconsistencies by providing a revised translation of this SEE CCR ROSC Methodology to their relevant national regulatory authorities.