Channel TSOs common methodology for Regional Operational Security Coordination in accordance with article 76 of Commission Regulation (EU) 2017/1485 of 2 August 2017

'Channel ROSC Methodology'

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WHEREAS

- 1. Commission Regulation (EU) 2017/1485 establishes a guideline on electricity transmission system operation (hereafter referred to as 'SO Regulation'), which entered into force on 2 August 2017.
- 2. This document is the common methodology of all Transmission System Operators (hereafter referred to as 'Channel TSOs') of the Channel Capacity Calculation Region (hereafter referred to as 'Channel CCR'), and defines the methodology for Regional Operational Security Coordination within the Channel CCR (hereafter referred to as 'Channel ROSC Methodology') in accordance with articles 76 and 77 of SO Regulation.
- 3. The Channel ROSC Methodology takes into account the general principles and goals set in the SO Regulation as well as Commission Regulation (EC) 2015/1222 establishing a guideline on Capacity Allocation and Congestion Management (hereafter referred to as 'CACM Regulation').
- 4. The Channel ROSC Methodology takes into account the possible dependencies with Commission Regulation (EU) 2017/2195 establishing a guideline on Electricity Balancing.
- 5. Article 76 of SO Regulation constitutes the legal basis for the Channel ROSC Methodology. Article 76 of SO Regulation defines that the Channel ROSC Methodology should address at least the following requirements:
 - (a) conditions and frequency of intraday coordination of operational security analysis and updates to the CGM by the RSC;
 - (b) the methodology for the preparation of remedial actions (hereafter referred to as "RAs") managed in a coordinated way, considering their cross-border relevance as determined in accordance with article 35 of CACM Regulation, taking into account the requirements in articles 20 to 23 of SO Regulation and determining at least: (i) the procedure for exchanging information about available RAs between relevant TSOs and the RSC; (ii) the classification of constraints and RAs in accordance with article 22 of SO Regulation; (iii) the identification of the most effective and economically efficient RAs in case of operational security limit violations referred to in article 22 of SO Regulation; (iv) the preparation and activation of RAs in accordance with article 23 (2) of SO Regulation; (v) the sharing of the costs of RAs referred to in article 22 of SO Regulation, complementing, where necessary, the common methodology developed in accordance with article 74 of CACM Regulation.
- 6. The Channel ROSC Methodology contributes to the objectives of article 76 of SO Regulation introducing a process which consists of a preparation phase as described in Chapter 1, a coordination phase as described in Chapter 2, a validation phase as described in Chapter 3 and an implementation phase as described in Chapter 4.
- 7. To identify the most effective and economically efficient RAs the Channel ROSC Methodology introduces an optimisation of RAs following the principles described in Article 23. The aim of the optimisation is to minimise the incurred cost in accordance with Article 27 on the one hand side and to ensure the RA effectivity in accordance with Article 29 on the other side.
- 8. For the exchange of relevant information and preparation of RAs the Channel ROSC Methodology describes all relevant input data relevant for executing the process in accordance with Article 14.
- 9. The Channel ROSC Methodology defines how the ROSC shall be applied in a coordinated manner in day-ahead and intraday within Channel CCR.

- 10. The Channel ROSC Methodology considers and, where necessary, complements the methodology for coordinating operational security analysis in accordance with article 75 of SO Regulation (hereafter referred to as 'CSAM').
- 11. The Channel ROSC Methodology considers and, where necessary, complements the Channel Capacity Calculation Region TSOs' proposal for the methodology for coordinated Redispatching and Countertrading (hereafter referred to as 'Channel RD and CT Methodology') in accordance with article 35 of CACM Regulation.
- 12. The Channel ROSC Methodology considers and, where necessary, complements the Channel Capacity Calculation Region TSOs' proposal for Redispatching and Countertrading Cost Sharing (hereafter referred to as 'Channel Cost Sharing Methodology') in accordance with article 74 of CACM Regulation.
- 13. In accordance with article 6(6) of SO Regulation, the Channel ROSC Methodology includes a timescale for its implementation.
- 14. The Channel ROSC Methodology contributes to the objectives of the SO Regulation concerning the maintaining of the operational security throughout the Union by specifying provisions for all TSOs and RSCs on the coordination of system operation and operational planning, transparency and reliability of information on transmission system operation, and the efficient operation of the electricity transmission system in the Union .
- 15. Furthermore, the Channel ROSC Methodology ensures application of the principles of proportionality and non-discrimination, transparency; optimisation between the highest overall efficiency and lowest total costs for all parties involved; and use of market-based mechanisms as far as possible, to ensure network security and stability.
- 16. In accordance with Recital (5) 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 stretching on the EU. They should support third countries in applying similar rules to those contained in this Regulation. ENTSO for Electricity should facilitate cooperation between EU TSOs and third country TSOs concerning secure system operation.
- 17. In conclusion, the Channel ROSC Methodology contributes to the general objectives of the SO Regulation to the benefit of all TSOs, the Agency, national regulatory authorities and market participants.

TITLE 1 GENERAL PROVISIONS

Article 1 Subject matter and scope

- 1. The Channel ROSC Methodology shall be considered as the methodology of Channel TSOs in accordance with article 76 of SO Regulation and for organisation for regional operational security coordination in accordance with article 77 of SO Regulation.
- 2. The Channel ROSC Methodology shall cover the day-ahead and intraday regional operational security coordination within Channel CCR. Channel ROSC Methodology shall apply to all Channel onshore TSOs and RSCs within the Channel CCR.
- 3. The Channel ROSC Methodology is subject to Channel NRA approval in accordance with article 6 (3)(b) of SO Regulation.

Article 2 Definitions and interpretation

- 1. In this Channel ROSC Methodology, the following acronyms are used:
 - a. 'ANORA' means 'Agreed but Not Ordered Remedial Action';
 - b. 'CGM' means the 'common grid model';
 - c. 'CGMM' means the methodology regarding articles 67 and 70 of SO Regulation;
 - d. 'CROSA' means 'Coordinated Regional Operational Security Assessment';
 - e. 'IGM' means the 'individual grid model';
 - f. 'RA' means 'remedial action';
 - g. 'RD and CT' means 'redispatching and countertrading';
 - h. 'ROSC' means 'Regional Operational Security Coordination'.
- 2. For the purposes of the Channel ROSC Methodology, the terms used shall have the meaning of the definitions included in article 3 of the SO Regulation, article 2 of CACM Regulation, article 2 of Commission Regulation (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and article 2 of CSAM. In addition, the following definitions shall apply:
 - a. 'Activated RA' means the ordered RA which has been agreed and implemented in the network by the TSO or by the resource provider:
 - b. 'Conditionally shared RA' means a shared RA whose applicability depends on conditions provided by the RA Connecting TSO;
 - c. 'CROSA Affected TSO' means a TSO which is affected by the full set of RAs resulting from CROSA with a remedial action influenced factor greater than the threshold defined in article 15 (5) of CSAM.
 - d. 'Non-Shared RA' means a RA used to relieve specific operational security limits violations and not available for the global optimisation;
 - e. 'Ordered RA' is the subset of the agreed remedial action that is bindingly ordered by the RA Requesting TSO and RA Connecting TSO;
 - f. 'RA Connecting TSO' means the TSO responsible for the control area where the RA is located or connected or activated;
 - g. 'RA Requesting TSO' means the TSO responsible for the operation of the control area where the violation of operational security limits is detected. In case of a violation of operational security limits on a cross-border transmission line, both TSOs responsible for the operation of that line are considered to be RA Requesting TSOs;
 - h. 'Secured Element' means an assessed element on which, when violations of an operational security limit are identified during the regional or cross-regional security analysis, remedial actions are needed in order to relieve these violations.
 - i. 'Scanned Element' means an assessed element on which the electrical state (at least flows) may be computed and may be subject to an observation rule during the regional security analysis process. Such an observation rule can be for example to avoid increasing a constraint or to avoid creating a constraint on this element, as a result of the design of remedial actions needed to relieve violations on the secured elements.
 - j. 'Shared RA' means a RA available for the global optimisation to relieve operational security limit violations;
 - k. Channel onshore TSOs means TSOs in charge of load-frequency control area within Channel CCR.
- 3. The following types of constraints are considered in this methodology:

- a. Operational security constraints: constraints in line with SO Regulation mean a situation in which there is a need to prepare and activate a RA in order to respect operational security limits. The consideration of these constraints within Channel ROSC Methodology is further defined in Article 25. The constraints consist of the following:
 - i. Currents and voltages exceeding operational security limits;
 - ii. Violations of stability limits of the transmission system identified in accordance with article 38 (2) and article 38 (6) of SO Regulation;
 - iii. Violations of short-circuit current limits of the transmission system.
- b. Constraints on remedial actions: constraints related to all aspects required to be taken into account when using RAs and classified as following:
 - Technical constraints are all the rules related to the technical limitations for resources for redispatching and countertrading in accordance with Channel RD and CT Methodology or network elements;
 - ii. Operational constraints are all the operational conditions and usage rules taking into account the timings to operate the network 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.
- c. Additional optimisation constraints called system constraints are all the optimisation constraints added by Channel onshore TSOs, expressed as flow limitation on a single or a set of Secured and Scanned Elements and necessary to respect stability limits or operational security limits other than current limits. These are further detailed in Article 17.
- 4. In this Channel ROSC Methodology, unless the context requires otherwise:
 - a. The singular indicates the plural and vice versa;
 - b. Headings are inserted for convenience only and do not affect the interpretation of this Channel ROSC Methodology;
 - c. 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. Channel onshore TSOs in coordination with Channel RSCs shall execute the ROSC for each hour of the target day. The ROSC is composed of the following activities:
 - a. Channel onshore TSOs and Channel RSCs shall perform day-ahead and intraday CROSAs. Day-ahead CROSA shall be performed in accordance with the timings of article 45 of CSAM. 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. Channel onshore TSOs shall implement the Agreed RAs in the subsequent IGMs and Channel onshore TSOs shall activate the Ordered RAs following the provisions in accordance with Articles 35 and 36.
- c. Channel onshore 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, Channel onshore TSOs with Channel RSCs shall perform intraday regional security analysis ('ID RSA').
- 2. The goal of the ID RSA is to provide Channel onshore TSOs each hour of the day with the latest information about the loading of the transmission system and previously undetected violations of operational security limits, which may serve as a trigger for a fast activation process.
- 3. This ID RSA shall be performed at each hour of the day for each timestamp until the end of the day.
- 4. 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.
- For the purpose of ID RSA, each Channel onshore TSOs shall provide every hour IGMs for all remaining hours of the day, respecting CGMM provisions for their content and including all Agreed RAs resulting from latest CROSA or fast activation process.
- 6. RSCs shall merge updated IGMs into an updated CGM, perform a load flow and contingency analysis calculation and deliver the results to all Channel onshore TSOs.

TITLE 3 DEFINITION AND DETERMINATION OF CHANNEL XNES, XRAS, CONSTRAINTS AND CONTINGENCIES

Article 5 Secured elements

- Secured elements shall represent a set of network elements in the Channel CCR with a voltage level higher than or equal to 220 kV subject to the CROSA, on which operational security limits violations need to be managed in a coordinated way.
- 2. The secured elements shall be identified as cross-border relevant network elements (XNEs) in accordance with CSAM within the Channel CCR.
- 3. Channel onshore 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;
 - d. Element is a transformer with the secondary voltage side lower than 220 kV.
- 4. Channel onshore 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 Channel onshore TSOs that such element may be excluded.
- 5. Channel onshore 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.

- 6. The list of excluded elements from the secured elements set shall be shared with the respective Channel RSCs and among Channel onshore TSOs.
- 7. Each Channel onshore TSO shall have the right at any time to include any element with a voltage level higher than or equal to 220 kV in the secured elements set.

Article 6 Scanned elements

- Scanned elements shall represent a set of elements on which CROSA shall not create new
 operational security limits violations or worsen any existing violation. Each Channel onshore TSO
 may, for CROSA purposes only, deviate from this by setting individual thresholds for the scanned
 elements of its IGM.
- 2. Channel onshore TSOs shall have the right at any time to include any element excluded from the secured elements set in the scanned elements set.
- 3. Channel onshore TSOs shall have the right at any time to include any element with a voltage level lower than 220 kV in the scanned elements set, which is modelled in its IGM, providing justification for its inclusion.
- 4. Channel onshore TSOs shall have the right at any time to exclude any element from the scanned elements set.

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

- 1. By three months after the approval of this methodology, Channel onshore TSOs with the support of the respective Channel RSCs shall define the list of secured elements and the list of scanned elements in accordance with Article 5 and Article 6.
- 2. If a new element with a voltage level higher than or equal to 220 kV is commissioned, it shall be included in the secured elements list, unless the Channel onshore 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 220 kV is commissioned, the Channel onshore TSO operating this element may decide to include it in the scanned elements list in accordance with Article 6.
- 4. Each Channel onshore TSO shall have the right at any time to move any element it operates with a voltage level higher than or equal to 220 kV from the scanned elements list to the secured elements list.
- 5. Channel onshore TSOs shall update the secured elements list and scanned elements list when necessary and inform the Channel RSCs about the change. The lists of secured elements and the list of scanned elements shall be reassessed by Channel onshore TSOs at least once a year.
- 6. Channel RSCs shall use the latest lists of secured elements and scanned elements shared by the Channel onshore TSOs.

Article 8 Cross-border relevant network elements

- 1. The list of secured elements defined in accordance with Article 7, represents the list of cross-border relevant network elements of Channel CCR, hereafter 'Channel XNEs'.
- 2. Costs incurred for solving violations on Channel XNEs shall be shared in accordance with the rules and criteria described in Channel Cost Sharing Methodology.

Article 9 Classification of remedial actions

1. Each Channel onshore TSO shall classify the RAs in accordance with article 22 of SO Regulation.

Article 10 Cross-border relevance of remedial actions

- Within one month after the list of secured elements set has been defined in accordance with Article 7, Channel onshore TSOs shall share with the Channel RSCs all potential RAs, designed in accordance with article 14 of CSAM, which are at least generally able to address violations of current limits.
- 2. Channel onshore TSOs, in coordination with Channel RSCs, shall jointly assess the cross-border relevance of potential RAs shared by Channel onshore TSOs in accordance to paragraph 1.
- Channel onshore TSOs shall aim at agreeing on a qualitative approach in accordance with Article
 to determine RAs that are deemed cross-border relevant and to determine the corresponding
 TSOs affected by those RAs.
- 4. If Channel onshore 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. Channel onshore TSOs shall jointly define and share with the Channel 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 by Channel onshore TSOs with the support of Channel RSCs.
- 7. If a new RA is designed in day-ahead or intraday operational planning, each Channel onshore TSO shall assess its cross-border relevance using a quantitative approach in accordance with article 15 (5) of CSAM.
- 8. The RA influence factor computation for RAs described in paragraph 7 shall be performed on the latest available CGM.
- 9. If a new RA is designed between two mandatory assessments in accordance with paragraph 6 and prior to day-ahead operational planning, each Channel onshore TSO shall assess its cross-border relevance in accordance with Article 11. In case Channel onshore TSOs cannot agree on the result of the qualitative approach, a quantitative approach in accordance with Article 12 shall be assessed.
- 10. Channel onshore TSOs shall delegate the task described in paragraph 7 to Channel RSCs.
- 11. If a new RA is designed by a Channel onshore TSO 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 latest 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 TSOs where the violation occurs.
- 12. In an emergency state, Channel onshore TSOs shall apply the provision of article 16 (4) of CSAM.
- 13. Between two mandatory assessments of RAs in accordance with paragraph 6, each Channel onshore 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 Channel RSCs.

- 14. During fast activation process, when a Channel onshore 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.
- 15. If a RA is not identified as cross-border relevant in accordance with Article 11 and Article 12, it shall be considered as non-cross-border relevant.

Article 11 Qualitative assessment of XRAs

- 1. Channel onshore TSOs, with the support of Channel RSCs, shall jointly establish a list of potential RAs provided by Channel onshore TSOs to Channel RSCs in accordance with Article 10 (1).
- 2. For each RA included in the list defined in paragraph 1:
 - a. Each Channel onshore TSO shall individually assess the cross-border relevance of the RA on its control area:
 - b. Each RA Connecting TSO shall assess the cross-border relevance of the RA on control areas of other Channel onshore TSOs and also on its control area;
 - c. If the RA 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 control areas of other TSOs and its control area has to be specified in accordance with article 15 (7) of CSAM;
- 3. Channel onshore TSOs may delegate the tasks described in paragraph 2 to their respective Channel RSC.
- 4. Each Channel onshore TSO shall propose RAs, considered by that Channel onshore TSO as being cross-border relevant providing justification for their selection to RA Connecting TSOs.
- 5. If a common agreement among Channel onshore 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 Channel onshore 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

- Channel onshore TSOs shall use the CGMs established in accordance with article 67 of the SO Regulation when computing remedial action influence factor in accordance with article 15 of CSAM.
- 2. Each Channel onshore TSO shall provide a list of elements on which the influence of a 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 an agreement on using a 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. Channel onshore TSOs shall delegate the task of performing calculations of remedial action influence factors to the Channel RSCs.

- 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 the RAs shall be considered as non-cross-border relevant.
- 7. All Channel onshore 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

- Each Channel onshore 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 Channel onshore TSO shall provide the respective Channel RSCs and Channel onshore TSOs with the Contingency List to be used in CROSA and shall inform the Channel RSCs about any update of this list in accordance with article 11 of CSAM.
- 3. Channel RSCs shall use the latest Contingency Lists shared by the Channel onshore TSOs.

TITLE 4 COORDINATED REGIONAL OPERATIONAL SECURITY ANALYSIS PROCESS

CHAPTER 1 PREPARATION

Article 14 Provision of the regional operational security inputs

- 1. Each Channel onshore TSO shall provide the following input data to Channel 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 its 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 hours for a business day related to intraday and day-ahead CROSA.
- 3. Channel onshore TSOs shall deliver or update when required the input data before the commonly agreed process deadlines.

Article 15 Preparation and updates of IGMs by Channel onshore TSOs

- 1. Each Channel onshore 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 in accordance with article 70 (1) of SO Regulation.
- Channel onshore TSOs shall have the right to perform local preliminary assessments. When
 preparing IGMs, each Channel onshore 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 Channel onshore TSOs before the first day-ahead CROSA.

- 3. When preparing IGMs, Channel onshore 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 Channel onshore TSOs at any time.
- 4. If Channel onshore 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 Channel onshore 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 optimisation contains agreed remedial actions for the respective control area, each Channel onshore TSO shall provide to Channel RSCs an updated IGM between two coordination runs in accordance with article 33 (1)(c) of CSAM and articles 3 and 4 of CGMM. The RAs resulting from the first coordination run are not binding and shall be possible to be changed by the optimisation function during the second coordination run if deemed unnecessary.

Article 16 Preparation and update of remedial actions by Channel onshore TSOs

- 1. Each Channel onshore TSO shall make available all potential RAs to the Channel RCSs for dayahead and intraday coordinated regional operational security assessments as defined in CSAM.
- 2. When identifying the RAs that shall be made available, each Channel onshore 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 Channel RD and 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. Assess the availability of the RAs which were available for the previously performed CROSAs or capacity calculation of the same hour and the previously ANORAs;
 - e. Consider the RAs as not available only under the following conditions:
 - i. an unforeseen event, or
 - ii. an unplanned outage, or
 - iii. a declaration of unavailability status done by a third party owning the assets providing the remedial action, or
 - iv. any other cause outside of the responsibility of the Channel TSO;
 - f. Identify whether a RA provided to Channel CCR is an overlapping XRA according to article 27(3) of CSAM:
 - g. Identify whether a RA is shared, non-shared or conditionally shared and additionally provide a justification to Channel RSCs and Channel onshore TSOs why a RA is nonshared or conditionally shared;
 - h. Identify to which CCR a RA is also made available.
- 3. Channel onshore TSOs shall provide any relevant information for each RA for the purpose of dayahead 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. In case of a second coordination run of the coordination stage of DA or ID CROSA, each Channel onshore TSO shall provide to the Channel RSCs an updated list of RAs, considering:
 - a. The agreed outcome of the latest coordination run for the RAs in accordance with Article 31 and 32;
 - b. Any unplanned or forced outages or changes of outage schedules of relevant assets;
 - c. If relevant the latest schedules of load and generation.

Article 17 System constraints

- Each Channel onshore TSO shall have the right to make available to Channel RSCs System
 constraints in accordance with Article 2 for the purpose of dynamic stability, 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 Channel onshore TSO shall provide to other Channel onshore TSOs and Channel RSCs the reasoning of these System constraints in a transparent manner.
- 4. If relevant, each Channel onshore TSO shall provide to the Channel 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 Channel onshore TSO shall make available the list of Secured and Scanned Elements for its control area to the Channel RSCs for day-ahead and intraday CROSAs in accordance with the principles defined in Article 7.
- 2. Each Channel onshore TSO shall make available the Contingency List for its control area to the Channel RSCs for day-ahead and intraday CROSAs pursuant to the principles defined in Article 13 developed in line with CSAM.

Article 19 List of Agreed RAs

1. The Channel RSCs shall make available for intraday CROSAs the list of Agreed RAs logged by Channel RSCs in accordance with Article 36.

Article 20 Consistency and quality check of the input data

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

CHAPTER 2 COORDINATION

Article 21 General provisions of coordination process

- 1. Channel RSCs in coordination with Channel onshore TSOs 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 Channel 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. Within ENTSO-E, TSOs will set-up a consistent and harmonised approach at pan-European level to ensure that the solutions implemented to build CGMs and operated by RSCs will be compliant with the respective requirements set up in the relevant legislation in force, including SO Regulation (notably article 79 (5) of SO Regulation), the CGMM and the CSAM, while ensuring reliability of the CGM delivery process and the aligned use of the resulting unique CGM.
- 4. Each Channel onshore TSO shall update the input data for the second coordination run in the day-ahead stage in accordance with the provisions defined in the Articles 14 20.
- 5. In the intraday CROSA, Channel onshore TSOs and Channel 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.
- 6. Information about Ordered RAs and ANORAs during day-ahead and Intraday CROSA shall be logged by Channel RSCs.

Article 22 Power flow and security analysis

- Channel 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 Channel onshore TSOs.
- 2. Channel RSCs shall provide to all Channel onshore TSOs the power flow and operational security analysis results.
- 3. Channel onshore 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 and to give Channel onshore TSOs the opportunity to correct these errors.
- 4. In case of the detection of input mistakes, Channel onshore TSOs shall update their input files in accordance with Article 20 (3).

Article 23 Optimisation of remedial actions

- 1. Channel onshore TSOs and Channel 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 RAs shall aim at relieving operational security limit violations on secured elements in accordance with Article 25;
- 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 incurred 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 RA 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 optimisation 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 the 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, Channel onshore TSOs and Channel RSCs shall detect if currents violate operational security limits in N-situation or after occurrence of a contingency.
- 2. In intraday CROSA the detection of current limits 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 Channel onshore TSO should perform local assessment and long-term operational security analysis in accordance with articles 31, 38 and 73 of SO Regulation. When applying such constraints, the concerned Channel onshore TSO shall provide to other Channel onshore TSOs and Channel RSCs the reasoning of 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 Channel onshore TSOs in accordance with Article 16 to relieve operational security limit violations on secured elements, detected in accordance with paragraph 1. The list of available RAs shall include the ANORAs that have been removed in accordance with paragraph 2 unless ANORAs are no longer technically available.
- 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:
 - Shall not lead to additional violations of operational security limits on secured and scanned elements;
 - b. Shall not worsen existing operational security limits violations on scanned elements in accordance with Article 6.
- 2. On request of Channel onshore TSOs and in case a scanned element constrains the optimisation in a significant frequency, the Channel onshore TSO who has defined this scanned element shall assess possibilities to reduce its constraining character.

Article 27 Minimise incurred costs

- The optimisation shall aim at minimising the incurred costs which are defined by the Channel RD and CT 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 or current.
- 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.

Article 30 Robustness

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 Channel onshore TSOs to operate their control area without violation of operational security
limits.

- 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, Channel onshore TSOs shall have right to change 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 Channel onshore TSOs and Channel 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 Channel onshore TSOs shall provide ex-post on request its justification about its decision to other Channel onshore TSOs and Channel RSCs.

Article 31 Coordination of RAs

- In day-Ahead and intraday CROSA, Channel onshore TSOs in coordination with Channel 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, Channel RSCs shall make recommendations for the implementation of the most effective and economically efficient RAs to the concerned Channel onshore TSOs according to the result of the optimisation in accordance with Article 23.
- 2. During each CROSA, RA Connecting TSOs and CROSA 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 CROSA affected TSOs agree on a proposed RA, this RA is deemed agreed by Channel onshore TSOs.
- 4. If a Channel onshore TSO rejects a RA proposed by Channel RSCs the reasons shall be justified, documented by the relevant Channel onshore TSO(s) and provided to Channel RSCs, in accordance with article 78 (4) of the SO Regulation.
- 5. If a Channel onshore TSO rejects a proposed RA, except in the case of an unavailability of the proposed RA, the respective Channel onshore TSO shall be able to perform an ex-post assessment to determine the additional costs and impact resulting from the rejected RA on the congestion. These costs and impact shall be compared with the costs and impact on congestion resulting from possible RAs not regarded in the CROSA and Fast Activation Process, which would lead to an acceptance of the rejected RA. If a proposed RA is rejected by a Channel onshore TSO due to a specific reason frequently, the rejecting Channel onshore TSO shall, at the request of the affected Channel onshore TSO, perform an ex-post assessment.
- 6. In case of rejection of a proposed RA, the concerned Channel onshore TSOs shall coordinate with Channel RSCs and other Channel onshore TSOs to identify and plan alternative RAs taking into account cost and efficiency to relieve the operational security limits violations in a coordinated way in accordance with Channel ROSC Methodology and article 17 (7) of CSAM.

Article 32 Inter-CCR coordination

1. Channel RSCs and relevant other RSCs in coordination with Channel onshore TSOs 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. Channel RSCs shall perform the coordinated cross-regional operational security assessment with relevant other RSCs in accordance with article 30 of CSAM.
- Channel RSCs shall consider and coordinate with relevant other RSCs the use of RA potential of adjacent CCRs in accordance with the proposal for amendment to be developed in accordance with article 27(3) of CSAM.
- 4. Until the amendment of article 27(3) CSAM is implemented, Channel onshore TSOs and RSCs shall continue applying the existing bilateral and/or multilateral operational agreements with TSOs and RSCs of other CCRs.

CHAPTER 3 VALIDATION

Article 33 Validation session

In the end of the day-ahead CROSA in accordance with article 33 (1)(f) of CSAM, a session shall
be hosted by Channel RSCs in order to consolidate results of the day-ahead CROSA and for
Channel onshore 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 fast activation process.
- 3. Channel RSCs shall ensure the availability of results and decisions to all Channel onshore TSOs.
- 4. Channel 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. Each 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.
- 2. In case of activating Redispatching or Countertrading, the RA connecting TSO shall apply the provisions of article 14 of Channel RD and CT Methodology.
- 3. Each Channel onshore 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 Channel onshore TSO shall reassess the Ordered RAs via fast activation process in accordance with Article 37.
- 4. The Channel onshore 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:
 - a. 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;
 - b. If a reassessment of the RA in the next CROSA is a possibility, then the RA shall be classified as ANORA.
- 2. Each Channel onshore TSO shall include all RAs agreed during the latest CROSA in the 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 Channel RSCs.
- 3. Channel RSCs shall monitor the inclusion of Agreed RAs into IGMs in accordance with article 28 of CSAM.

Article 37 Fast activation process

- 1. A Channel onshore 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 latest CROSA.
- 2. The fast activation process shall also be considered as a fallback where coordination through the Channel RSCs is no longer possible due to insufficient time and the regular process described in Article 21 could not be properly applied.
- 3. A Channel onshore 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 RA connecting TSOs and 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 Channel onshore 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 Channel onshore TSO activating XRAs through fast activation process shall provide the Channel RSCs the relevant information on which the decision was based.
- 8. The fast activation process ends once RAs to relieve the violation are identified, coordinated and agreed. These RAs will be considered as Agreed RAs.
- 9. Channel onshore 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. Any Activated RAs, which are Agreed RAs resulting from CROSA and fast activation process in accordance with this Channel ROSC Methodology, are subject to the cost sharing principles in accordance with Channel Cost Sharing Methodology.
- 2. Each Channel onshore TSO and the Channel RSCs shall provide all needed information about these Activated RAs to ensure the application of the Channel Cost Sharing Methodology.

TITLE 6 MONITORING AND IMPLEMENTATION

Article 39 Reporting

- 1. RAs will be reported by Channel onshore 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. Channel RSCs shall record and share all necessary data to enable Channel onshore TSOs to fulfil the obligations regarding Channel ROSC Methodology, Channel Cost Sharing Methodology and article 17 of SO regulation.
- 3. By 12 months after approval of the Channel ROSC Methodology, Channel onshore TSOs shall submit an amendment of Article 39 listing the monitoring and reporting obligations regarding this Channel ROSC Methodology. Channel onshore TSOs shall consult Channel NRAs to elaborate on the monitoring and reporting obligations.

Article 40 Implementation

- 1. The Channel ROSC Methodology shall be implemented in a consistent manner with the Channel RD and CT Methodology, Channel Cost Sharing Methodology, CGMM and the CSAM.
- The implementation of the Channel ROSC Methodology shall consider development, testing and implementation of the IT tools, systems and procedures required to support the Channel ROSC Methodology, CGMES format included and the CSAM.
- 3. During the implementation of the Channel ROSC Methodology, the Channel onshore TSOs with the support of Channel RSCs shall jointly define the timeline of each step of the day-ahead and intraday regional operational security coordination, in accordance with article 45 of the CSAM and with the methodology in accordance with article 70 of SO Regulation. The timings shall be published on the ENTSO-E website.
- 4. The Channel onshore TSOs and Channel RSCs shall define and implement a target solution in line with the provisions of this Channel ROSC methodology and taking into account the cross-regional common functions and tools needed for a secure and efficient system operational planning in accordance with article 40 of CSAM.
- 5. Channel onshore TSOs and Channel RSCs shall consider the following steps for the implementation of this target solution:
 - a. High level business solution consisting among others on identification of the contractual needs between Channel onshore TSOs and Channel RSCs, drafting of the business process, performing the gap analysis with the current situation,

- screening the market for potential solution to fill the gaps and drafting related business, IT and service level requirements for tools and hardware and determining the acceptance criteria for validating the accuracy and robustness of the solution;
- b. Tendering consisting in preparing and performing the selection and contracting of the vendors for the different tools and hardware solution identified in the step 5(a);
- c. Development of the solution including the negotiation of performance requirements, functional acceptance test, site acceptance test and user acceptance test;
- d. Experimentation of the solution by Channel onshore TSOs and Channel RSCs experts and key users aiming at tuning the different parameters to ensure accuracy and robustness of the solution towards the acceptance criteria defined in the step 4(a);
- e. Parallel operational run where Channel onshore TSOs and Channel RSCs will train their operators and perform operational runs in parallel with the existing operational processes to assess the accuracy and robustness of the solution towards the acceptance criteria defined in step 5(a);
- f. Operational go-live where the solution will replace the existing operational processes.
- 6. Channel onshore TSOs and Channel RSCs shall respect the following maximum timing (Time of Implementation, hereafter "TI") for the different implementation steps defined in the paragraph 2:
 - g. Step 5(a) shall be achieved at the latest at TI1 equals to TI0 + 12 months, where TI0 is the date of approval of the Channel ROSC methodology;
 - h. Step 5(b) shall be achieved at the latest at TI2 equals to TI1 + an estimation of 12 months:
 - i. Step 5(c) shall be achieved at the latest at TI3 equals to TI2 + 18 months;
 - j. Step 5(d) shall be achieved at the latest at TI4 equals to TI3 + 6 months;
 - k. Steps 5(e) shall be achieved at the latest at TI5 equals TI4 + 6 months;
 - I. Step 5(f) shall be achieved at the latest at TI6 equals to TI5 + 1 months.
- 7. At the end of the step 5(b), Channel onshore TSOs with the support of Channel RSCs shall issue an amendment of the Channel ROSC methodology reviewing the steps and the maximum timings of 5(c), 5(d), 5(e) and 5(f) considering the contractual agreements with selected vendors.
- 8. In parallel to the implementation of the target solution in accordance with paragraph 1 to paragraph 6 and with an estimated time of 24 months after the approval of the ROSC Methodology, the Channel RSCs with the support of Channel onshore TSOs, shall develop and implement a stepwise approach considering an interim solution. This approach will consider the following conditions:
 - a. Improvement of the level of coordination in the existing operational processes and of the platforms and tool allowing the centralisation of relevant functions operated by Channel RSCs;
 - Improvement shall be based on the provisions of the Channel ROSC Methodology and shall respect the specific acceptance criteria that be defined for the interim solution;
- 9. In case the stepwise approach contains an interim solution,
 - a. It shall be faster implemented than the target solution;
 - b. The Implementation shall not delay the implementation of the target solution;
 - c. The Implementation shall require reasonable efforts from Channel onshore TSOs and Channel RSCs.

10. Within 12 months after the approval of the Channel ROSC Methodology, Channel onshore TSOs with the support of Channel RSCs shall submit an amendment of the Channel ROSC methodology to amend the implementation plan with the description of the stepwise approach resulting from the paragraph 8 and 9.

TITLE 7 ALLOCATION OF TASKS BY CHANNEL RSCS

Article 41 Appointment of RSCs and delegation of tasks to Channel RSCs

- 1. Channel onshore TSOs appoint CORESO and TSCNET as RSCs that will perform the tasks listed in article 77 (3) of SO Regulation in the Channel CCR.
- 2. CORESO and TSCNET will perform the tasks listed in article 77(3) of SO Regulation in the Channel CCR for all Channel onshore TSOs in a transparent and non-discriminatory manner.
- 3. In accordance with article 77(3) of SO Regulation all Channel onshore TSOs delegate the following tasks to CORESO and TSCNET:
 - a. ROSC in accordance with SO Regulation article 78 in order to support Channel onshore TSOs to fulfil their obligations for the year-ahead, day-ahead and intraday timeframes in accordance with articles 34(3), 72 and 74 of SO Regulation;
 - b. Building of CGM in accordance with article 79 of SO Regulation;
 - Regional outage coordination in accordance with article 80 of SO Regulation, in order to support Channel onshore TSOs to 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 Channel onshore TSOs to fulfil their obligations under article 107 of SO Regulation.

Article 42 Allocation of tasks between Channel RSCs

- 1. CORESO and TSCNET carry out the task for ROSC in accordance with article 78 of SO Regulation on a rotational basis over a pre-determined period as defined in paragraph 2.
- 2. The rotational basis assumes that CORESO and TSCNET will rotate the roles of Leading and Backup Channel RSC over pre-determined periods. The Leading Channel RSC is responsible and accountable for the effective and efficient execution of the ROSC in accordance with the article 78 of SO Regulation over a pre-determined period. The Backup Channel RSC is responsible for supporting the Leading Channel RSC to ensure the effectiveness of the ROSC process for all Channel onshore TSOs. This support can be either requested by the Leading Channel RSC or suggested by the Backup Channel RSC.
- 3. CORESO and TSCNET carry out the task of CGM building on a rotational basis over a predetermined period in accordance with article 20 of CGMM and with Article 79 of SO Regulation.
- 4. TSCNET carry out the task of regional outage coordination in accordance with article 80 of SO Regulation.
- 5. CORESO carry out the task of regional adequacy assessment in accordance with article 81 of SO Regulation.
- 6. The organization of the regional outage coordination task and of the regional adequacy assessment task in (4) and (5) may be amended in accordance with Article 43 and Article 44.

Article 43 Efficiency and effectiveness of the allocation of tasks between Channel RSCs

- CORESO and TSCNET shall monitor the effectiveness and efficiency of the allocation of the
 tasks for which they are responsible and, where applicable, the rotation of those tasks and their
 operational performance on a yearly basis in the scope of preparation of the annual reports on
 regional coordination assessment according to article 17 of SO Regulation.
- 2. CORESO and TSCNET shall agree on clear and specific performance indicators with Channel onshore TSOs to perform the tasks mentioned in Articles 41 and 42 and to be monitored and reported in accordance with Article 39 (3).
- 3. CORESO and TSCNET will ensure, in consultation with the Channel onshore TSOs, transparency and interoperability of all processes and the associated data within the operational tasks mentioned in this methodology.
- 4. CORESO and TSCNET shall assess interoperability issues and propose changes aiming at improving effectiveness and efficiency in the system operation coordination.

Article 44 Coordination and decision-making process

- 1. The Leading Channel RSC with the support of the back-up RSC will ensure the coordination with all Channel onshore TSOs.
- 2. RSCs shall cooperate in good faith and shall seek to adopt a fair and loyal treatment of the other Parties concerned.
- 3. RSCs will implement the provision of the tasks in close consultation and cooperation with the Channel onshore TSOs.
- 4. RSCs and Channel onshore TSOs will establish a contractual framework for the implementation of this methodology.

Article 45 Rules concerning governance and operation of Channel RSCs

- 1. The security of supply shall be the responsibility of each of the Channel onshore TSOs according to national laws and regulations. The responsibility for secure system operation and any decision taken based on services from CORESO and TSCNET shall remain with the Channel onshore TSOs. Governance rules shall be further defined and agreed by Channel TSOs and Channel RSCs in accordance with Article 40 (5) (a) and within the timescales defined in Article 40 (6) (a).
- 2. For the avoidance of doubt, these rules do not replace any provision of national or European law that may apply to any of the Channel onshore 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.
- 3. Any dispute between the Channel RSCs and between Channel RSCs and Channel onshore TSOs arising out of or in connection with this methodology shall be settled amicably between the Parties. In case the dispute cannot be settled amicably between the Parties within 60 calendar days after having been notified hereof, the dispute shall be finally settled by an arbitration process.
- 4. CORESO and TSCNET shall agree on a contractual framework defining the rules for operation of Channel RSCs and the liability between Channel RSCs.

TITLE 8 FINAL PROVISIONS

Article 46 Publication of this Proposal

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

Article 47 Language

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