



DECISION No 07/2019
OF THE AGENCY FOR THE COOPERATION OF
ENERGY REGULATORS

of 19 June 2019

ON THE ALL TSOs' PROPOSAL FOR THE METHODOLOGY FOR
COORDINATING OPERATIONAL SECURITY ANALYSIS

THE AGENCY FOR THE COOPERATION OF ENERGY REGULATORS,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators¹, and, in particular, Articles 8(1) thereof,

Having regard to Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation², and, in particular, Article 6(2)(c) and 6(8) thereof,

Having regard to the outcome of the consultation with all national regulatory authorities and transmission system operators,

Having regard to the favourable opinion of the Board of Regulators of 12 June 2019, delivered pursuant to Article 15(1) of Regulation (EC) No 713/2009,

Whereas:

1. INTRODUCTION

- (1) Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (the 'SO Regulation') laid down a range of

¹ OJ L211, 14.8.2009, p. 1.

² OJ L 220, 25.8.2017, p. 1.

requirements for operational security analysis coordination, among which the requirements for the development of a methodology for coordinating operational security analysis ('CSAM') in accordance with Article 75 of the SO Regulation.

- (2) Pursuant to Articles 5(1), 6(2)(c), 6(7) and 6(8) of the SO Regulation, all transmission system operators ('TSOs') are required to develop a proposal for the CSAM in accordance with Article 75 of the SO Regulation and submit it to all regulatory authorities for approval. In turn, all regulatory authorities shall reach an agreement and take a decision on the proposal within six months after the receipt of the proposal by the last regulatory authority. When all regulatory authorities fail to reach an agreement within the six-month period after the submission, the Agency shall adopt a decision concerning the TSOs' Proposal in accordance with Article 8(1) of Regulation (EC) No 713/2009.
- (3) The present Decision of the Agency follows from the request of all regulatory authorities that the Agency adopts a decision on the proposal for CSAM, which all TSOs submitted to all regulatory authorities and on which those regulatory authorities could not agree. Annex I to this Decision sets out the CSAM as decided by the Agency.

2. PROCEDURE

2.1. Proceedings before regulatory authorities

- (4) Article 75(1) of the SO Regulation requires all TSOs to submit a proposal for coordinating operational security analysis no later than twelve months after the entry into force of the SO Regulation. As the SO Regulation entered into force on 14 September 2017, all TSOs were required to submit a proposal for coordinating operational security analysis by 14 September 2018.
- (5) On 26 February 2018, all TSOs published for public consultation the draft 'all TSOs' proposal for coordinating operational security analysis in accordance with Article 75 of Commission Regulation (EU) 2017/1485 of 2 August 2017'. The consultation lasted from 26 February 2018 until 6 April 2018.
- (6) On 14 September 2018, all TSOs submitted to all regulatory authorities an 'all TSOs' proposal for coordinating operational security analysis in accordance with Article 75 of Commission Regulation (EU) 2017/1485 of 2 August 2017' (hereafter referred to as the 'Proposal'). The last regulatory authority received the Proposal on 1 October 2018.

2.2. Proceedings before the Agency

- (7) In a letter received by the Agency on 21 December 2018, the Chair of the all Energy Regulators' Forum³, on behalf of all regulatory authorities, informed the Agency that on 19 December 2018 all regulatory authorities reached a unanimous agreement to request the Agency to adopt a decision on the Proposal pursuant to Article 75 of the SO Regulation.
- (8) In this letter, and the accompanying non-paper, all regulatory authorities highlighted that TSOs did not provide a satisfactory level of detail on the following key topics: (i) principles for common probabilistic risk assessment in accordance with Article 75(1)(b) of the SO Regulation; (ii) handling of uncertainties in accordance with Article 75(1)(c) of the SO Regulation; (iii) requirements on coordination and information exchange between regional security coordinators in accordance with Article 75(1)(d) of the SO Regulation. Therefore, in the assessment of all regulatory authorities, the Proposal was not compliant with the requirements of the SO Regulation, and thus cannot be approved.
- (9) Moreover, all regulatory authorities stressed that the CSAM and the methodology for assessing the relevance of assets for outage coordination ('RAOCM'), to be developed pursuant to Article 84 of the SO Regulation, have been treated as a package, both by TSOs and regulatory authorities. Article 75(1)(a) of the SO Regulation requires a methodology on influence computation to be included in the CSAM. This methodology on influence computation shall, in accordance with Article 84(3) of the SO Regulation, be consistent between the CSAM and the RAOCM. Due to this link, any change in the methodology on influence computation in the CSAM would have an impact on the RAOCM. Therefore, the CSAM and the RAOCM should be dealt with in parallel.
- (10) Finally, the regulatory authorities asked the Agency to give utmost consideration to all regulatory authorities' views on the CSAM provided in their non-paper and on the key topics listed above.
- (11) On 25 January 2019, the Agency launched a public consultation on the Proposal, inviting all market participants to submit their comments by 18 February 2019. The consultation document asked stakeholders to provide views on nine topics which were deemed as the most relevant: (i) common probabilistic risk assessment; (ii) infrastructure for data on common operational probabilistic coordinated security assessment and risk management; (iii) local scenarios; (iv) involvement of regional security coordinators ('RSCs') in cross regional impact of local scenarios; (v) best forecast approach for day-ahead and intraday uncertainty handling; (vi) allocation of remedial actions between regions; (vii) influence thresholds and (viii) the implementation timeline, reporting periods and common hours;

³ The all regulatory authorities' platform to consult and cooperate for reaching a unanimous agreement on NEMO's and TSO's proposals.

(ix) other aspects of concern. The summary and evaluation of the responses received are presented in Annex II to this Decision.

(12) Moreover, the Agency closely cooperated with all regulatory authorities and all TSOs and further consulted on the amendments to the Proposal during teleconferences, meetings and exchanges of amendments. In particular, the following steps were taken:

- 22 February 2019: the Agency circulated an updated draft of the proposed amendments to the CSAM;
- 7 March 2019: workshop with all regulatory authorities and TSOs;
- 13 March 2019: teleconference with all regulatory authorities and TSOs;
- 13 March 2019: the Agency circulated an updated draft of the proposed amendments to the CSAM;
- 22 March 2019: discussion with all regulatory authorities in the framework of the SOGC Task Force;
- 27 March 2019: teleconference between all regulatory authorities and TSOs;
- 3 April 2019: the Agency circulated an updated draft of the proposed amendments to the CSAM;
- 10 April 2019: teleconference with all regulatory authorities and TSOs;
- 24 April 2019: meeting with all regulatory authorities and TSOs;
- 7 May 2019: teleconference between all regulatory authorities and TSOs;
- 13 May 2019: teleconference between all regulatory authorities and TSOs;
- 16 May 2019: orientation discussion at the meeting of the Board of Regulators;
- 21 May 2019: discussion with all regulatory authorities at the Electricity Working Group meeting.

3. THE AGENCY'S COMPETENCE TO DECIDE ON THE PROPOSAL

(13) Pursuant to Article 6(8) of the SO Regulation, where the regulatory authorities have not been able to reach an agreement within six months following the receipt of the terms and conditions or methodologies or upon their joint request, the Agency shall adopt a decision concerning the submitted proposal for terms and conditions or methodologies within six months, in accordance with Article 8(1) of Regulation (EC) No 713/2009.

- (14) According to the letter of the Chair of the all Energy Regulators' Forum of 21 December 2018, all regulatory authorities have agreed to refer the Proposal to the Agency.
- (15) Therefore, under the provision of Article 6(8) of the SO Regulation, the Agency became responsible to adopt a decision concerning the Proposal by the referral of 21 December 2018.

4. SUMMARY OF THE PROPOSAL

- (16) The Proposal consists of the following elements:
 - (a) The 'Whereas' section and Articles 1 and 2, which include general provisions, the scope of application and the definitions;
 - (b) Articles 3 to 6, which contain the determination of influencing elements with methods for influence computation, dynamic aspects for influence assessment, identification of elements of observability area and identification of external contingencies;
 - (c) Articles 7 to 11, which include the management of exceptional contingencies with methods for classification of contingencies, occurrence increasing factors handling, the establishment and sharing of contingency list;
 - (d) Articles 12 to 13, which include the evaluation of contingency consequences;
 - (e) Articles 14 to 21, which include the coordination of remedial actions with methods to design and identify the cross-border relevance of remedial actions, principles for coordination, remedial actions availability and their inclusion in individual grid models;
 - (f) Articles 22 to 25, which include requirements for realisation of operational security analysis with respect to uncertainty management and regional coordination in the long-term, day-ahead and intraday timeframe;
 - (g) Article 26 to 36, which include requirements for cross-regional coordination; definition of overlapping zones, coordinated regional and cross-regional operational security assessment for day-ahead and intraday time frames, tasks related to outage coordination and adequacy assessment;
 - (h) Articles 37 to 39, which include forecast updates with respect to uncertainty management for intermittent generation and load, and principles for grid model updates in intraday;
 - (i) Articles 40 to 44, which are dedicated to rules on governance, coordination and information exchange with RSCs, data quality, monitoring and probabilistic risk assessment;

- (j) Articles 45 to 47, which include the implementation timeline, definition of common hours and provisions on language;
- (k) Annex I, which includes the influence thresholds, a description in words of the influence computation method and mathematical descriptions for the computation of power flow influence for grid elements and significant grid users, as well as voltage influence computation for grid elements.

5. SUMMARY OF THE OBSERVATIONS RECEIVED BY THE AGENCY

5.1. Initial observations of all regulatory authorities

- (17) According to the letter of the Chair of the all Energy Regulators Forum of 21 December 2018, all regulatory authorities jointly identified shortcomings in the Proposal.
- (18) All regulatory authorities identified that not all provisions in Article 75 of the SO Regulation were addressed sufficiently in the Proposal (see paragraph (8) above). Also, the level of harmonisation and the time plan for implementation were lacking ambition.

5.2. Consultation of all regulatory authorities and TSOs

- (19) During the close cooperation between the Agency and all regulatory authorities and TSOs as detailed in paragraph (12) above, and beyond the above-mentioned issues, the Agency:
 - (a) discussed the comments received during the public consultation (see section 5.3.) and the views of all regulatory authorities expressed in the aforementioned non-paper;
 - (b) with respect to regional coordination, including on dynamic aspects for influence assessment and coordinated regional operational security assessments, further discussed the rules for TSOs' coordination and the involvement of RSCs;
 - (c) with respect to the cross-border relevance of network elements on which operational security violations need to be managed in a coordinated way, further discussed the principle for their identification and the process for their determination;
 - (d) with respect to remedial actions, further discussed their design, cross-border relevance, coordination process, as well as, cost sharing and inclusion in the individual grid models;
 - (e) with respect to cross-regional coordination, including the definition of overlapping zones, further discussed cross-border relevant network elements and cross-border relevant remedial actions;
 - (f) regarding the development of the methodology on common probabilistic risk assessment taking full account of the provisions of the SO Regulation, discussed the interplay between the deterministic and probabilistic coordinated security assessment

and risk management, as well as, the aspects on the reporting on the development progress.

5.3. Public consultation

(20) Answers to the public consultation (see paragraph (11) above) are compiled and evaluated in Annex II. They shed light on stakeholders' concerns regarding some of the above-mentioned issues and in particular on the questions, as well as, initial views and proposals made by the Agency:

- (a) regarding the suggested approach for all TSOs and RSCs, with the support of the European Network of Transmission System Operators for Electricity ('ENTSO-E'), to set up the infrastructure required to collect and process the data necessary to inform the development of the common operational probabilistic coordinated security assessment and risk management, the majority of stakeholders supported this approach;
- (b) regarding the handling of uncertainties in long-term studies, the majority of stakeholders agreed with the Agency's view that local scenarios, as prepared by individual TSOs, need to be thoroughly verified, and in turn issues with regional impact addressed, by TSOs in a coordinated way at a regional level and with the involvement of the RSC(s) in order to optimise the use of remedial actions. The majority of stakeholders also supported the involvement of RSCs in the assessment of regional and cross-regional effects in additional scenarios;
- (c) regarding the assessment of cross-regional influence of remedial actions, the majority of stakeholders agreed with the views of the Agency that the Proposal might lead to inefficiencies or even risks to the system operation and suggested a cross-regional coordination by the RSCs;
- (d) regarding the implementation of the forecast approach for renewable energy sources (hereafter 'RES'), the majority of stakeholders were in favour of reducing the implementation time for Article 37 of the Proposal to twelve months as forecasts of intermittent generation are state-of-the-art and available widely on the market.

6. ASSESSMENT OF THE PROPOSAL

6.1. Legal framework

- (21) Articles 5(1), 5(2) and 6(2)(c) of the SO Regulation require all TSOs to provide an agreed proposal for a methodology for coordinating operational security analysis in accordance with Article 75(1) of the SO Regulation to all Regulatory authorities for their approval.
- (22) Article 75 of the SO Regulation sets out the requirements regarding the development of a proposal for a methodology for coordinating operational security analysis and its

implementation. In this context, all TSOs are required to submit a proposal for the CSAM no later than twelve months after entry into force of the SO Regulation. TSOs need to consult the Proposal in accordance with Article 11 of the SO Regulation.

- (23) Article 4 of the SO Regulation lists the objectives and regulatory aspects which are relevant for this Proposal. Nearly all objectives are covered by the Proposal, apart from the objectives on load frequency control which are out of scope for the Proposal. The regulatory aspects on transparency and responsibility assigned to the relevant TSO concerning system security are covered in the Proposal as well.
- (24) Article 20 of the SO Regulation introduces remedial actions as a means to manage operational security violations. Remedial actions that will relieve operational security violations are part of the outcome of the coordinated operational security analysis.
- (25) Articles 21 and 22 of the SO Regulation set out the principles for activating and coordinating remedial actions, as well as the criteria for selecting the appropriate remedial actions and introduce categories for remedial actions. These principles, criteria and categories need to be respected during the coordinated operational security analysis.
- (26) Article 23 of the SO Regulation covers preparation, activation and coordination of remedial actions. Any impact of remedial actions needs to be measured not just inside a TSOs' control area, but also outside it, and all concerned TSOs need to be informed about the impact. This is the legal basis for coordinating and establishing the impact of remedial actions.
- (27) Article 33 of the SO Regulation covers the establishment of the list of contingencies, which sets the basis for the probabilistic risk assessment of such contingencies.
- (28) Article 43 of the SO Regulation covers the structural data exchange between TSOs and distribution system operators ('DSOs') within the TSO's control area, and sets some principles for determining the observability area and the inclusion of non-transmission-connected distribution system into it.
- (29) Article 22 of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereafter 'CACM Regulation') lays down rules for a reliability margin to be taken into account when assessing and dealing with uncertainties of generation and load.
- (30) Article 70 of the SO Regulation contains provisions for the development of the methodology for building day-ahead and intraday common grid models.
- (31) Article 72 of the SO Regulation lays down the rules for the timeframes of day-ahead and intraday coordinated operational security analyses, as well as the rules on how to simulate contingencies in the N-situation and in the (N-1)-situation.

- (32) Article 76 of the SO Regulation lays down the requirements for the proposal for regional security coordination which will be established by TSOs of the different capacity calculation regions ('CCRs') after the approval of the Proposal.
- (33) Article 77(3) of the SO Regulation sets out the tasks that RSCs need to coordinate inside regions and between regions.
- (34) Article 78 of the SO Regulation lays down the rules on regional operational security coordination, especially on sharing the updated contingency list established in accordance with Article 75(1) of the SO Regulation, with the relevant RSCs.
- (35) Article 84(3) of the SO Regulation states that the methodology developed to assess the relevance of assets for outage coordination shall be consistent with the methods developed pursuant to Article 75(1)(a) of the SO Regulation.
- (36) As a general requirement, Article 6(6) of the SO Regulation requires that the proposal for terms and conditions or methodologies include a proposed timescale for their implementation and a description of their impact on the objectives of the same Regulation.

6.2. Assessment of the legal requirements

6.2.1. Assessment of the requirements for the development and for the content of the Proposal

6.2.1.1. Development of the Proposal

- (37) The Proposal fulfils the requirements of Articles 5(1), 5(2) and 6(2)(c) of the SO Regulation, as all TSOs jointly developed and submitted the agreed Proposal for approval to all regulatory authorities.
- (38) The Proposal partly fulfils the requirements of Article 75(1) of the SO Regulation, as the Proposal, while submitted by most TSOs by 14 September 2018, which is within twelve months after entry into force of the SO Regulation, was submitted by the last TSO on 1 October 2018, which is in breach of the twelve months submission deadline. The Proposal was subject to consultation as described in Section 2.1 above.

6.2.1.2. Required content of the Proposal

- (39) The Proposal meets the requirements of Article 75(1)(a) of the SO Regulation as it includes a method for assessing network elements to be part of a TSO's observability area and influence thresholds to constitute external contingencies.
- (40) The Proposal partly fulfils the requirements of Article 75(1)(b) and Article 75(5) of the SO Regulation as it includes an approach for common risk assessment concerning the treatment of exceptional contingencies with the associated permanent occurrence

increasing factor. However, rather than prescribing for a clear plan for the development of operational probabilistic coordinated security assessment and risk management, the Proposal only prescribes for the identification of data that needs to be collected in order to prepare for a potential future use of operational probabilistic coordinated security assessment and risk management by 31 December 2019, and for reporting on the progress on operational probabilistic coordinated security assessment and risk management by 31 December 2021.

- (41) The Proposal partly fulfils the requirements of Article 75(1)(c) and Article 75(6) of the SO Regulation and contains principles for assessing and dealing with uncertainties on load and generation. Concerning the long-term studies, the Proposal does not fully demonstrate that the local scenarios, as prepared by individual TSOs pursuant to Article 22 of the Proposal, will be thoroughly verified, and in turn issues with regional impact addressed, by TSOs and RSC(s) at a regional level in order to optimise the use of remedial actions. Nevertheless, concerning the day-ahead and intraday timeframes, the provisions of Articles 23, 24, 37, 38 and 39 of the Proposal constitute the harmonised maximum level of uncertainties agreed at European level.
- (42) The Proposal partly fulfils the requirements of Article 75(1)(d) of the SO Regulation as it includes to some extent a process for coordination and exchange of information between RSCs. However, relevant information is not always exchanged with the RSCs (e.g. concerning the TSO's observability area in Article 5 of the Proposal or multi-lateral TSOs' agreements pursuant to Article 12 of the Proposal) and the process for the coordination is focused on cross-RSC coordination (Articles 27 and 30(2) of the Proposal) rather than on coordination between the CCRs for which common methodologies for coordinated redispatching and countertrading are developed pursuant to Article 35 of CACM Regulation.
- (43) The Proposal fulfils the requirements of Article 75(1)(e) of the SO Regulation in defining the role of ENTSO-E as a platform for TSOs to coordinate and use its tools for implementing the CSAM.
- (44) The Proposal fulfils the provisions of Articles 75(2) and (3) of the SO Regulation as the influence computation method in Article 4 and Annex I of the Proposal address connectivity status, electrical values, common influence thresholds and scenarios to take into account generation patterns, including outages of assets, as well as cross-border electricity exchanges.
- (45) The Proposal fulfils the requirements of Article 75(4) of the SO Regulation as it includes provisions on:
 - (a) common contingency influence thresholds based on electrical values;

- (b) the range for contingency thresholds to minimise the risk that contingencies, which have an effect on another TSOs control area, are included in the list of external contingencies;
 - (c) a risk assessment for such situations with various conditions using generation level and load pattern, exchange levels and asset outages.
- (46) The Proposal fulfils the requirement of Article 84(3) of the SO Regulation as the influence computation method to establish the elements for the observability area and the contingency influence thresholds is the same as in the proposal for the RAOCM.

6.2.1.3. Proposed timescale for implementation

- (47) The Proposal fulfils the requirements of Article 6(6) of the SO Regulation with regard to the proposed timescale for implementation of the CSAM.
- (48) Former Article 45 of the Proposal lays down detailed implementation deadlines for the different Articles of the Proposal.
- (49) Former Article 45(2) of the Proposal provides that, in general, six months after the adoption of the CSAM, all TSOs and RSCs shall apply the requirements of the Proposal.
- (50) Yet, the Agency finds it necessary to amend paragraph (3) of this Article to reduce the time for the implementation of Article 37 of the Proposal to twelve months after the adoption of the CSAM. The majority of stakeholders advocated for the reduction of the implementation time for forecasts of intermittent generation. Recitals (3) and (5) of the SO Regulation address the objective of RES integration, which is relevant as well for the CSAM. In order properly and without discrimination to address the constant changes of RES integration into the network, the timing of the implementation of forecasts for intermittent generation has to be adapted accordingly. This will help timely assess the operational security in the interconnected system due to changes in generation.
- (51) Concerning the adequacy of the cross-regional day-ahead coordinated operational security assessment, the Agency finds it necessary to introduce in paragraph (14) of former Article 45 of the Proposal the reference to the reporting on the opportunities to start earlier and to reduce the total length of the process on coordinated security analysis because it was missing.
- (52) Additional changes in different paragraphs of this Article were made when RSCs have to apply provisions of the CSAM. This is necessary to take into account the timelines for the establishment of RSCs. Only when the concerned RSCs are fully established in accordance with Article 76 of the SO Regulation and TSOs have appointed RSCs to perform the tasks pursuant to Article 77 of the SO Regulation RSCs will be able to fulfil these tasks.

- (53) The Agency has defined the above mentioned timescales after consultation with all TSOs, regulatory authorities and market participants. The Agency understands that this timescale increases the workload for TSOs, but does not create an unnecessary burden for them.

6.2.1.4. Description of the expected impact on the objectives of the SO Regulation

- (54) The recitals in the Proposal provide a description of the expected impact of the methodology on the objectives of the SO Regulation. All the relevant objectives set in Article 4 of the SO Regulation are addressed in the recitals, apart from the objective on the common load-frequency control process in accordance with Article 4(1)(c) of the SO Regulation, which is out of scope of the CSAM.

6.2.2. Assessment of the definitions

- (55) Besides the additional definitions, which are explained in the following sections, the Agency added two definitions which are needed for clarity. These are the definitions for ‘network element’ and ‘connecting TSO’.

6.2.3. Assessment of the requirements for the influence computation

- (56) Some changes to Articles 3 to 6 of the Proposal were necessary to clarify the coordination between TSOs and DSOs on data provision obligations and to take full account of the existing legal requirements on data collection, processing and exchange.
- (57) Also, in paragraphs (9) and (11) of Article 3 of the Proposal, the Agency removed unclear references to ‘own grid model’ and provided a clearer wording to address the issue of complementing individual grid models with network elements connected to DSO/ closed-DSOs (‘CDSO’) networks. Also, paragraph (7) of Article 3 of the Proposal was deleted because it was superfluous and already covered by the provisions in paragraph (6) of Article 3 of the Proposal.
- (58) Changes in Article 4 of the Proposal on dynamic aspects for influence assessment were made to align the wording with the respective Articles 38 and 39 of the SO Regulation and to keep the consistency between the Proposal and the SO Regulation. Also, consistency with Article 75(2)(a) of the SO Regulation was established by using the wording ‘connectivity status or electrical values’ to clarify what TSOs will assess with dynamic studies.
- (59) Yet, the Agency made changes in Articles 4(1), 4(7) and 4(8) of the Proposal also to include the RSC(s) in the information exchange in accordance with Article 75(1)(d) of the SO Regulation and because of the requirement to coordinate on the remedial actions in accordance with Article 21(1) of the SO Regulation. This coordination includes the remedial actions aiming to ensure the dynamic stability referred to in Article 39(1) of the SO Regulation. In addition, in Article 4(1) of the Proposal the information exchange is necessary to allow RSC(s) to be compliant with their tasks stemming from Commission

Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration (hereafter ‘ER Regulation’). Especially, the regional coordination in accordance with Article 6(1) of the ER Regulation requires consultation with RSCs to assess the consistency of measures, within the entire synchronous area, of system defence plans, pursuant to Article 11, and restoration plans, pursuant to Article 23 of the same Regulation. In order for RSCs to understand the dynamic behaviour (frequency and voltage-wise) of the system users, and the interconnected power system in general, they need to be informed of the models, studies and criteria defined by the TSOs to be used for the assessment of influence of the connectivity status and electrical values of the network elements, power generating modules and demand facilities located in transmission-connected DSOs/CDSOs networks. For example, TSOs’ dynamic studies provide for the necessary information on the behaviour of the system (or of its parts, such as transmission-connected DSOs/CDSOs networks) during stressed situations (emergency and restoration states). In accordance with Article 6(2)(c) of the ER Regulation, regional common mode failures to be assessed by the RSC(s). In complying with this obligation, RSC(s) will need to assess the aforementioned TSOs’ dynamic studies and identify potential common mode failures, such as adverse behaviour of a large number of distribution-connected system users during abnormal frequency events.

- (60) The Agency also included the RSC(s) in the information exchange in Article 5(5) of the Proposal so as to allow for an efficient exchange of information in accordance with Article 75(1)(d) of the SO Regulation, knowing that the threshold values as selected by TSOs will in any way be published by ENTSO-E at some point. The Agency added a point (a) in Article 5(6) to the Proposal to include all transmission system elements of a TSO in its observability area. This was missing in the Proposal, but is absolutely essential for defining a TSO’s observability area.
- (61) The Agency found it necessary to amend Article 5(11) of the Proposal with regard to the cycle for quantitative re-assessment with the computation method. A three-year cycle for the re-assessment is more compliant with the objectives of the SO Regulation concerning transparency, according to Article 4(2)(b) thereof, and non-discrimination, according with Article 4(2)(a) thereof. Recitals (3) and (5) of the SO Regulation address the objective of RES integration which is relevant as well for the CSAM. In order properly and without discrimination to address the constant changes in the level of RES integration into the network, the cycle of re-assessment has to be adapted accordingly. This will help assess the observability area regularly and synchronise the changes happening due to RES commissioning.
- (62) A new paragraph (13) was added in Article 5 of the Proposal to inform the RSC(s) about the scope of TSOs’ observability area in accordance with Article 75(1)(d) of the SO Regulation.

6.2.4. Assessment of the requirements for contingency list and cross-control area consequences

(63) The Agency made minor changes to Article 11 of the Proposal to clarify its meaning and improve readability. A new paragraph (2) was added in Article 12 of the Proposal to include provisions related to the analysis of cross-control area effects of contingencies that do not need to respect the (N-1) criterion by relevant RSC(s) and to report to TSOs.

6.2.5. Assessment of the requirements for coordination of remedial actions and between RSCs

(64) The Proposal defines some high level principles for regional coordination of remedial actions. In this regard, it clearly distinguishes between cross-border impacting remedial actions (measuring physical effect on interconnectors as defined in Article 15(1) of the Proposal) and remedial actions of cross-border relevance (as determined in accordance with Article 35 of the CACM Regulation). The latter include a regional coordination and optimisation of redispatching and countertrading, whereas the former may also include coordination of other remedial actions (not only redispatching and countertrading). The Proposal does not provide for any regional coordination and optimisation for cross-border impacting remedial actions. Thereby, the Proposal only covers the remedial actions whose scope is not already covered in the methodology pursuant to Article 35 of the CACM Regulation and proposes a quasi-coordination for such remedial actions with the central role of a TSO activating those actions coordinating with the TSOs being affected by such actions and without a clear central role for the RSC. The separation of remedial actions into cross-border impacting remedial actions and cross-border relevant is also evident from the definition of the 'agreed remedial action', i.e. a remedial action with cross-border relevance according to Article 35 of the CACM Regulation or a cross-border impacting remedial action. The Proposal does not include any overlap or coordination between the two categories.

(65) The Agency deems this proposed approach not compliant with the SO Regulation because of two main reasons. First, the SO Regulation does not allow to separate remedial actions that need to be managed in a coordinated way into two separate categories with different levels of coordination. In particular, Articles 21(1) and 76(1)(b) of the SO Regulation require that all remedial actions that need to be managed in a coordinated way be used to address operational security violations that need to be managed in a coordinated way and that this coordination ensure the identification of the most effective and economically efficient remedial actions. The Proposal would clearly legitimise two separate coordination procedures which would not be able to identify the most effective and economically efficient remedial actions to address operational security violations that need to be managed in a coordinated way.

(66) Second, the Proposal does not clearly specify that the coordination of cross-border impacting remedial actions is performed at regional level and the central coordination role is not given to the RSC as required by Articles 77 and 78 of the SO Regulation.

- (67) Therefore, the Agency deems that the concept of cross-border relevant redispatching and countertrading actions and cross-border relevant congestions defined within the methodology referred to in Article 35 of the CACM Regulation cannot be separated from the concept of operational security violations and remedial actions that need to be managed in a coordinated way pursuant to Articles 21 and 76 of the SO Regulation, since all remedial actions that need to be managed in a coordinated way (including redispatching and countertrading) are required to be coordinated in one single coordination and optimisation process and not in two separate and materially different coordination procedures. With this respect, the requirement in Article 76(1) of the SO Regulation that the methodology pursuant to Article 76(1) of the SO Regulation shall *'complement where necessary the methodologies developed in accordance with Articles 35 and 74 of the CACM Regulation'* can only be consistently implemented if the methodology pursuant to Article 76(1) of the SO Regulation encompasses the full scope of the methodologies pursuant to Articles 35 and 74 of the CACM Regulation and includes additional elements specifically required by the methodology pursuant to Article 76(1) of the SO Regulation. Any other implementation of the reference to *'complement where necessary'* would not be compliant with Articles 21 and 76 of the SO Regulation.
- (68) For the reasons above, the Agency replaced all references to the cross-border impacting remedial actions with the references to cross-border relevant remedial actions in order to ensure full consistency with the methodologies developed in accordance with Articles 35 and 74 of the CACM Regulation.
- (69) As the Proposal was frequently referring to the designing of remedial actions, the Agency changed Article 14 of the Proposal into *'designing of remedial actions'* in order to explain the process by which the remedial actions are being designed. In this process, TSOs identify all remedial actions that are available to address operational security violations as a first necessary step in the complete coordination process. In that context, the Agency also defined that a designed remedial action can also encompass a combination of remedial actions. This change was introduced in order to increase the clarity of the CSAM and to avoid continuous references to *'remedial action or sets of remedial actions'*. The definition *'set of remedial actions'* was therefore deleted from the Proposal. As fixing combinations of remedial actions could significantly restrict the identification of the most effective and economically efficient remedial actions, the Agency provided specific conditions and rules for defining combinations of remedial actions.
- (70) The Agency made significant changes in Article 15 of the Proposal. The first set of changes aims at clarifying the identification of cross-border relevant network elements, which was implicitly addressed in Articles 20(1) and (2) of the Proposal. The Agency moved Articles 20(1) and (2) of the Proposal into Article 15. To this end, the title of Article 15 was changed to *'identification of cross-border relevant network elements and remedial actions'*. Articles 20(1) and (2) of the Proposal established a minimum principle whereby cross-border relevant network elements are at least critical network elements as established in capacity calculation methodology. This rule does not properly reflect the requirement to identify all network elements where operational security violations need

to be managed in a coordinated way. This is because the critical network elements should respect certain principles, which effectively may exclude certain network elements from becoming critical network elements, however these network elements may still be cross-border relevant, for example when they are significantly impacted by loop flows from neighbouring bidding zones. To address this problem, the Agency is of the opinion that the notion of cross-border relevance should include all network elements where the percentage of flows resulting from exchanges outside the TSO control area where such network element is located is significant. As such, this principle requires deeper analyses by TSOs in a CCR. Therefore, the Agency replaced the proposed principle (i.e. at least critical network elements) with a more comprehensive high level principle to harmonise the identification of cross-border relevant network elements across CCRs. The latter should result in the cross-border relevant network elements to comprise all network elements above certain voltage level except those network elements for which all TSOs in a CCR agree that they are not cross-border relevant. The Agency also understands that including too many network elements in the coordination does not risk a loss of economic efficiency or operational security in regional coordination. However, including not enough network elements would indeed entail such risk. For this reason, the principle for the identification of cross-border relevant network elements as proposed by the Agency is considered as adequate.

- (71) With regard to the identification of cross-border impacting remedial actions in Article 15 of the Proposal, the Agency replaced this notion with the notion of cross-border relevant remedial actions due to reasons described in paragraphs (67) and (68) above. The Agency made significant changes to this article, but mainly with the aim to clarify this process and avoid a risk of disagreement. In particular, the Agency clarified the conditions and rules for the application of quantitative and qualitative approaches to identify the cross-border relevant remedial actions. Specifically, the remedial action influence factor applied in the case of the quantitative approach has been linked to the physical impact on cross-border relevant network elements. With this regard, the Agency also specified the default threshold for the remedial action influence factor unless a different threshold is justified in the methodology pursuant to Article 76 of the SO Regulation. The Agency also removed the references to curative remedial actions from Article 15 of the Proposal, since the assessment of cross-border relevance does not require to distinguish between curative and preventive remedial actions.
- (72) The Agency introduced minor changes to Article 16 of the Proposal to improve clarity and readability as well as to reflect the new definition of cross-border relevant remedial action or 'XRA' and the clarifications on the application of the qualitative and quantitative approach to identify the cross-border relevance of remedial actions as explained in the previous paragraph. Article 16(1)(c) of the Proposal was deleted because the principles concerning the quantitative and qualitative approach were already included in the amended Article 15. The wording on designing remedial actions was replaced by preparing remedial actions in order to reflect the differences between the different stages of remedial actions eventually leading to their activation and the clarification of the design of remedial actions in the amended Article 14 of the Proposal, which means the

identification of the resources available to be used as remedial actions as defined in the amended Article 2 of the Proposal.

- (73) In Article 17 of the Proposal, the Agency amended paragraphs (4) and (5), and introduced an additional paragraph (7). These paragraphs provide high-level principles for the acceptance and rejection of the proposed cross-border relevant remedial actions. Namely, the Agency clarified the conditions under which TSOs accept and implement the recommended remedial actions. Here, the Agency distinguished between the process and conditions by which the connecting TSOs implement the recommended remedial actions and the process and conditions by which the affected TSOs accept or refuse remedial actions. With this regard, the Agency provided references in the amended Articles 17(1), (5), (6) and (7) to the applicable requirements in the SO Regulation and other relevant Union legislation, including a legal act adopted following the proposed regulation of the European Parliament and of the Council on the internal electricity market (recast)⁴. Other additions, like paragraph (2) and the last sentences in paragraphs (3) and (4) address and detail the coordination with RSCs including on the respect of voltage and dynamic limits in the activation of cross-border relevant remedial actions. Also, this article no longer distinguishes between restoring and curative remedial actions as this is not needed for the determination of the cross-border relevance.
- (74) The Agency added the requirements on the exchange of best forecast on possible cross-border relevant remedial actions available for coordination in paragraphs (2) and (3) of Article 18 of the Proposal. These changes were introduced in order to allow for the identification of the most economically efficient remedial actions in accordance with Articles 21(2)(a) and 76(1)(b)(iii) of the SO Regulation. In particular, the Agency also added the requirements on the exchange of information related to prices or costs of remedial actions as, without them, the identification of the most economically efficient remedial actions would not be possible. The required information shall be in the form of prices and costs at which the remedial actions shall be settled, or, in case these cannot be established, in the form of expected or forecasted prices or costs of remedial actions. Other changes to this article help increase the readability and clarify the meaning.
- (75) Article 19 of the Proposal was amended mostly due to changes in the wording in the preceding articles of the Proposal and in order to reflect prior changes on the definition of cross-border relevant remedial actions.
- (76) The Agency amended Article 20 of the Proposal for consistency with changes to Article 15 of the Proposal and for the reasons explained in paragraphs (64) to (68). The

⁴ See e.g. the European Parliament's legislative resolution on the proposal for a regulation of the European Parliament and of the Council on the internal electricity market (recast), http://www.europarl.europa.eu/doceo/document/TA-8-2019-0227_EN.html?redirect.

other changes only concern the wording in order to reflect the changes on cross-border relevant remedial actions.

- (77) In Article 21 of the Proposal, the Agency deleted the possibility for TSOs to include in the individual grid models also remedial actions with cross-border impact subject to non-coordination in paragraph (4) of this Article. This deletion was necessary because all cross-border relevant remedial actions should be identified via the coordinated operational security analysis. Also, the Agency added a new paragraph (5) in Article 21 of the Proposal to clarify that all remedial actions included in the individual grid models have to be clearly distinguishable from the injections and withdrawals established in accordance with Article 40(4) of the SO Regulation and the network topology without remedial actions applied.
- (78) Although Article 21 of the Proposal allows for relieving operational security limit violations identified during the local preliminary assessment by each TSO in accordance with Articles 21(3) and (4) of the Proposal, it is not complete since it does not specify, in accordance with Article 70(4) of the SO Regulation, how remedial actions are included in the day-ahead and intraday individual grid models and how they are clearly distinguishable from the injections and withdrawals established in accordance with Article 40(4) of the SO Regulation and the network topology without remedial actions applied. During its proceedings on the present methodology, the Agency invited TSOs to provide clarity with regard to this question, however TSOs were not able to address it and requested additional time to develop a proposal. However, such specification concerning remedial actions is an essential element for the present methodology and accordingly also for its approval. The Agency considers it necessary to condition the approval of the Proposal to the establishment of this specification. Given this conditionality, it is not relevant that Article 7 of the SO Regulation lays down the principles for amendments, where the Agency is not explicitly referred to as being entitled to request an amendment to the methodologies. The Agency therefore introduced, in paragraph (6) of Article 21 of the Proposal, a condition for all TSOs jointly to develop, no later than eighteen months after the adoption of the CSAM, a proposal for amendment of the CSAM in accordance with Article 7(4) of the SO Regulation. The proposal is to complement the CSAM with rules distinguishing between:
- (a) the up-to-date load and generation forecasts and network topology considered within the individual grid models, which are not aiming at addressing the expected operational security violations identified during the local preliminary assessment and are therefore not considered as remedial actions; and
 - (b) the expected generation and load, as well as network topology considered within the individual grid models, which are aiming at addressing the expected operational security violations identified during the local preliminary assessment and are therefore considered as remedial actions.

The eighteen months' deadline for development of this proposal was established in consistency with the deadline for another amendment established pursuant to Article 27 of Proposal and therefore allows TSOs to bundle all the amendment proposals into one approval package.

- (79) Changes introduced in Articles 22 to 25 of the Proposal are minor and aim at improving the clarity and readability of the Proposal. Also, see section 6.2.6 on changes due to stakeholders' views.
- (80) Articles 27 and 30 of the Proposal provide the general principles for coordination of operational security violations and remedial actions across regions and RSCs. The Proposal established the notion of overlapping zones consisting of network elements where regions and RSCs need to coordinate in order to address the operational security violations on them.
- (81) Articles 27 and 30 of the Proposal are very confusing and unclear. For this reason, the Agency introduced many amendments to these articles to provide for clarity and legal certainty. In particular, the issue of cross-regional coordination is one of the main areas of the CSAM which requires specific attention. This is because this issue cannot be addressed or further explained in the methodology pursuant to Article 76(1) of the SO Regulation, which covers only the regional (i.e. CCR) scope. To avoid the risk that cross-regional coordination fails due to vague and unclear requirements in the CSAM, the Agency introduced major changes to these two articles as specified below.
- (82) As a general approach, the Agency amended the Proposal in two ways. First, by providing high-level principles for cross-regional coordination. Second, based on these high-level principles, by requiring the TSOs to develop detailed rules and submit those rules for regulatory approval in the form of an amendment to the CSAM. This approach takes into account the fact that the exact problems related to cross-regional coordination are not yet fully known at the time of this Decision and TSOs need first to gain some experience related to regional coordination. Nevertheless, the Agency finds it valuable to provide some guiding principles for these detailed rules, which will facilitate the discussions among TSOs and ease their development.
- (83) Taking into account the above approach, the Agency amended Article 27 of the Proposal to specify:
 - (a) the high-level principle for defining the overlapping zones based on the estimation of the physical impact of different CCRs on a concerned network element. Thus, when the physical flows on network elements are significantly impacted by more than one CCR, such network elements shall be included in the overlapping zone;

- (b) the high-level principle for identifying overlapping cross-border relevant remedial actions using the same principles as for identifying cross-border relevant remedial actions at regional level;
 - (c) the high-level principle for the process and sequence of interaction between regional and cross-regional coordination. This principle specifies that, first, the operational security violations on overlapping XNEs are to be addressed at the regional level and, subsequently, the residual violations are to be addressed at cross-regional level;
 - (d) the high-level principle for sharing the costs of the overlapping XRAs activated to address the residual operational security violations by assigning the shares of costs to individual overlapping XNEs and to individual impacting CCRs.
- (84) Based on the high-level principles established in the amended Article 27 of the Proposal and based on the approach described above, the Agency provided an obligation for TSOs to develop detailed rules for the implementation of these principles and to propose them as an amendment to the CSAM. The Agency provided an eighteen-month deadline for TSOs to develop these rules. The deadline was established by taking into account that TSOs need to gain some understanding of the regional rules for the coordination of remedial actions in accordance the methodologies pursuant to Article 76(1) of the SO Regulation. As by eighteen months after the adoption of this Decision, these regional methodologies are expected to be developed and approved, the Agency considers that this is a sufficient time for TSOs better to understand the problems related to regional coordination and which problems require regional vs cross-regional coordination. The approach also allows the use at cross-regional level of the principles established at regional level.
- (85) Finally, the Agency clarified in Article 27 of the Proposal that TSOs should not provide a single remedial action to be used in parallel within several coordinated regional operational security analyses as proposed in Article 30(3) of the Proposal. This, in the Agency's view, should be prohibited as it would hamper the applicability of regional optimisation and coordination of remedial actions. Therefore, the Agency clarified in Article 27 that in cases a remedial action can be used in two or more regions, the concerned TSO shall decide in which regional coordinated security analysis such a remedial action shall be used.
- (86) Article 30 of the Proposal was also subject to some changes introduced by the Agency. Everything therein related to the TSOs' proposal on cross-RSC impacting remedial actions was deleted and replaced by corresponding references to cross-border relevant remedial actions. The provision identifying overlapping remedial actions and remedial actions to be used for several regions were amended and moved to Article 27 as described above. Paragraph (4) of this Article was amended to provide further clarity on the cross-regional coordination process. Finally, a new paragraph (4) was introduced in Article 30

of the Proposal) to specify the process by which the costs of activated overlapping XRAs are shared in three stages:

- (a) first, the total costs of overlapping XRAs are shared between the overlapping XNEs;
- (b) second, the costs attributed to an overlapping XNE are shared between the impacting CCRs;
- (c) third, the costs attributed to an overlapping XNE for the part assigned to a specific CCR are shared based on regional rules for sharing such costs established in accordance with Article 76(1)(b)(v) of the SO Regulation and Article 74(1) of the CACM Regulation.

(87) The specification of the above process is needed, since such rules cannot be established in the regional methodologies in accordance with Article 76(1)(b)(v) of the SO Regulation and Article 74(1) of the CACM Regulation.

6.2.6. Assessment of the requirements for local scenarios in long-term studies

(88) In Article 22 of the Proposal, changes were introduced to take account of stakeholders' views and to clarify the handling of local scenarios in long-term studies. In paragraphs (4) and (5) of Article 22 of the Proposal, RSC(s) were added to coordinate with and help the building of additional scenarios. The reason for this change is that RSC(s) need to have access to all relevant information in order to fulfil the tasks of operational security coordination for different timeframes, common grid model building and regional outage coordination. Involving RSC(s) in the tasks referred to in Article 22 of the Proposal secures this access to relevant information and that any cross-regional effects are identified and dealt with accordingly in a coordinated way.

(89) In addition, paragraph (6) was added to Article 22 of the Proposal to clarify the usage and handling of these additional grid models which originate from local additional scenarios.

(90) The addition of paragraphs (7) and (8) to Article 22 was necessary to provide that RSC(s) analyse the potential cross-regional impact of additional scenarios and to clarify the requirement on reliability margins from the CACM Regulation. Article 22 of the CACM Regulation lays down the rules for reliability margins to be taken into account during capacity calculation. These margins cannot be included in analysing operational security limits during operational planning activities. A reference to Article 11 of Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation was added to be consistent in the different timeframes.

6.2.7. Assessment of the requirements for uncertainty management on load and intermittent generation

(91) Articles 37 and 38 of the Proposal deal with uncertainty handling in forecasting intermittent generation and load. The Agency made minor changes in the wording to clarify it and account for different current practices amongst TSOs. TSOs are not required to establish intermittent generation forecasts themselves, but can rely on third parties to provide them with the required forecasts.

6.2.8. Assessment of the requirements for risk assessment

(92) In the Proposal, all TSOs did not fully integrate the requirements of Article 75(1)(b) and 75(5) of the SO Regulation on common operational probabilistic coordinated security assessment and risk assessment. Taking this into account, the Agency introduced changes in former Articles 43 and 45(14) of the Proposal to set up a stepwise approach for introducing probabilistic principles into TSO operations on risk assessment. Therefore, all TSOs have to submit an amendment to the CSAM by 31 December 2027 with a methodology on common probabilistic risk assessment, which will form an annex to the CSAM.

(93) In addition to the stepwise approach on common operational probabilistic coordinated security assessment and risk assessment, the Agency changed the reporting provisions, the requirements on data process and the time plan for implementation, taking account of stakeholders' views as presented in Annex II to this Decision. Changes to the expected content of the report on the progress achieved on operational probabilistic coordinated security assessment and risk assessment were necessary to account for the introduction of probabilistic elements in TSOs' operations. The report should serve as a support to the development of the common operational probabilistic coordinated security assessment and risk assessment.

(94) The Agency got wide support from stakeholders for the proposed approach on collecting data and processing it for common operational probabilistic coordinated security assessment and risk assessment. In order to be consistent with Title II of the SO Regulation on data exchange, a reference in former Article 43(3) of the Proposal was added to Article 40 of the SO Regulation. The TSOs have to collect and process the data and take account of already existing decisions on the methodologies for data collection.

(95) The report has to be developed biennially by 31 December instead of one report by 31 December 2021 only on the progress achieved in Europe on operational probabilistic coordinated security assessment and risk management. This is to allow for the regulatory authorities to monitor the progress on the implementation, and potentially intervene if so required.

(96) The deadline of 31 December 2027 for the development of the methodology on common probabilistic risk assessment takes account of the difficulties associated with introducing

common operational probabilistic coordinated security assessment and risk assessment as raised by the TSOs.

(97) Article 7 of the SO Regulation lays down the principles for amendments, where the Agency is not explicitly referred to as being entitled to request an amendment to the methodologies. However, this is not relevant in the present case. Article 75(1)(b) of the SO Regulation specifically requires a probabilistic approach for risk assessment, which was also expressed by all regulatory authorities in their non-paper on the CSAM. In addition to the TSOs' proposal only to collect the necessary data for the future use of a probabilistic approach, the Agency introduced the requirement for all TSOs to develop a common probabilistic risk assessment by 31 December 2027. This deadline allows for a stepwise introduction, starting nine months after the adoption of the CSAM with a data collection process taking account of the requirements of Article 40(5) of the SO Regulation.

6.2.9. Assessment of the requirements for consultation, transparency and stakeholder involvement

6.2.9.1. *Consultation and involvement of stakeholders*

(98) When drafting the Proposal, all TSOs aimed to address the requirements of Article 11 of the SO Regulation regarding the involvement of stakeholders.

(99) As indicated in paragraph (5) above, all TSOs fulfilled the requirements of Article 11 of the SO Regulation, since stakeholders were consulted on the draft Proposal pursuant to Article 11(1) of the SO Regulation. This involvement took place during a public consultation, which ran from 26 February 2018 until 6 April 2018. In addition, all regulatory authorities were regularly informed and consulted pursuant to Article 11(1) and (2) of the SO Regulation. The justifications regarding the consideration given to the views expressed by stakeholders during the public consultation in the drafting of the Proposal were provided in a separate document dated 10 July 2018 and submitted to all regulatory authorities.

6.2.9.2. *Reporting, monitoring, information exchange and data quality*

(100) The Agency added paragraph (7) to Article 6 of the Proposal to clarify a reporting obligation for ENTSO-E in the scope of Article 17 of the SO Regulation on any interoperability issues stemming from different external contingency threshold values selected by all TSOs. ENTSO-E shall assess the interoperability first and include any findings into the reporting obligations in accordance with Article 17 of the SO Regulation.

(101) Article 41 was added to the Proposal so as to collect in one place and clarify the data exchange obligations for the RSCs and TSOs. The data exchange obligations between TSOs and the relevant RSC(s) ensure the required data exchange for the coordination and execution of RSC(s) tasks as stipulated in Articles 75, 77 and 78 of the SO

Regulation. In that way, the obligations can be found in one place and need not be looked up separately in different articles.

- (102) Former Article 41 of the Proposal on data quality assessment has been changed to make the establishment of data quality management provisions obligatory by a fixed date of 1 January 2023. The data in accordance with Title 4 of the Proposal contains information on forecasts for load and intermittent generation as well as update frequency for individual grid models in accordance with Article 70 of the SO Regulation.
- (103) The Agency added a new paragraph (4) in former Article 42 of the Proposal to clarify the amendment process on the monitoring of regional coordination, in accordance with Article 7 of the SO Regulation, which was missing.
- (104) Former Article 44(3) of the Proposal was amended to clarify who will receive the report on adequacy of the cross-regional day-ahead coordinated operational security assessment process and to clarify expectations on the content. The timeline was slightly adjusted to 1 July to be consistent with other reporting obligations and to clarify the starting point.
- (105) In former Article 45 of the Proposal a new reporting obligation was included in paragraph (15) to account for the stepwise implementation approach on probabilistic risk assessment and to reflect the changes in the amended Article 44 of the Proposal towards probabilistic risk assessment. The addition of paragraph (14) in former Article 45 of the Proposal stems from changes in former Article 44 of the CSAM concerning the enlarged reporting obligations for TSOs. Paragraph (8) was also added in former Article 45 of the Proposal to reflect the changes in the amended Article 27 of the Proposal.

7. CONCLUSION

- (106) For all the above reasons, the Agency considers the Proposal in line with the requirements of the SO Regulation, provided that the amendments described in this Decision are integrated in the Proposal, as presented in Annex I.
- (107) Therefore the Agency approves the Proposal subject to the necessary amendments and to the necessary editorial amendments. To provide clarity, Annex I to this Decision sets out the Proposal as amended and approved by the Agency,

HAS ADOPTED THIS DECISION:

Article 1

The methodology for coordinating operational security analysis in accordance with Article 75 of Regulation (EU) 2017/1485 is adopted as set out in Annex I to this Decision.

Article 2

This Decision is addressed to all TSOs:

50Hertz Transmission GmbH,
Amprion GmbH,
AS Augstsprieguma tīkls,
Austrian Power Grid AG,
BritNed Development Limited (NL),
BritNed Development Limited (UK),
C.N.T.E.E. Transelectrica S.A.,
ČEPS a.s.,
Creos Luxembourg S.A.,
EirGrid Interconnector DAC,
EirGrid plc,
Eleclink Limited,
Elektroenergien Systemen Operator EAD,
Elering AS,
ELES, d.o.o.,
Elia System Operator SA,
Elia System Operator NV/SA,
Energinet.dk,
Fingrid Oyj,
HOPS d.o.o. (Hrvatski operator prijenosnog sustava),
Independent Power Transmission Operator S.A.,
Kraftnät Åland Ab,
Litgrid AB,
MAVIR ZRt,
Moyle Interconnector Limited,
National Grid Electricity Interconnector Limited,
National Grid Electricity Transmission plc,
National Grid IFA2 Limited,
Nemo Link Limited,
Polskie Sieci Elektroenergetyczne,
Red Eléctrica de España S.A.,
Rede Eléctrica Nacional, S.A.,
Réseau de Transport d'Electricité,
Slovenská elektrizačná prenosová sústava, a.s.,
Svenska kraftnät,
System Operator for Northern Ireland Ltd,
TenneT TSO B.V.,
TenneT TSO GmbH,
Terna Rete Elettrica Nazionale S.p.A.,

TransnetBW GmbH, and
VUEN - Vorarlberger Übertragungsnetz GmbH.

Done at Ljubljana on 19 June 2019.

- SIGNED -

For the Agency
Director ad interim
Alberto POTOTSCHNIG

Annexes:

Annex I – Methodology for coordinating operational security analysis in accordance with Article 75 of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation

Annex II – Evaluation of responses to the public consultation on the amendments of the proposal for coordinating operational security analysis

In accordance with Article 19 of Regulation (EC) No 713/2009, the addressees may appeal against this Decision by filing an appeal, together with the statement of grounds, in writing at the Board of Appeal of the Agency within two months of the day of notification of this Decision.