

CACM Amendments - proposal from the TSOs

date: 30 October 2025

1. Objective

The objective is to provide concrete wording proposal on the issues identified as a priority, i.e.:

2. CACM wording proposal for SO Regulation related amendments

SO GL Article	EC's proposal	EE's proposal	Reasoning
13	1. Where a synchronous area encompasses both union and third country TSOs, within 18 months after entry into force of this Regulation, all Union TSOs in that synchronous area shall endeavour to conclude with the third country TSOs not bound by this Regulation an agreement setting the basis for their cooperation concerning secure system operation and setting out arrangements for the compliance of the third country TSOs with the obligations set in this Regulation.	1. Where a synchronous area encompasses both union and third country TSOs, within 18 months after entry into force of this Regulation, all Union TSOs in that synchronous area shall endeavour to conclude with the third country TSOs not bound by this Regulation an agreement setting the basis for their cooperation concerning secure system operation and setting out arrangements for the compliance of the third country TSOs with the obligations set in this Regulation. 2. Third country TSOs shall have the same access to all information contained on the ENTSO for Electricity operational planning data environment as Union TSOs according to Article 112, provided that: 1. they have concluded an agreement in accordance with paragraph 1 of this Article 13; or 2. there is an intergovernmental agreement on electricity cooperation between the Union and a third country, and the national law in the third country implements the <i>acquis communautaire</i> on energy in accordance with that agreement.	According to the Energy Community (EnC) Treaty each contracting party shall implement <i>acquis communautaire</i> including SO GL. As such, the SOGL was incorporated into the EnC legal framework by decision of the EnC Ministerial Council 2022/03/MC-EnC. This implies that each EnC TSO shall share their IGM on the ENTSO for Electricity operational planning data environment (OPDE) and by doing that they also get access to each EU-TSO's IGM and the CGM. This set up implies that EnC TSOs and EU-TSOs will share confidential information and agree on confidentiality terms since part of the IGM could contain such information. As regards Switzerland, given the successful negotiation of the EU-Switzerland electricity agreement and the commitments made in the Joint Declaration between Switzerland and the EU signed in June 2025 to preserve operational security, Switzerland and Swissgrid should also be considered eligible for access to each EU-TSO's IGM and the CGM via the OPDE platform. Although the electricity agreement is not yet in

			force, Swissgrid already today participates in several regional coordination processes. The electricity agreement further ensures Swissgrid's participation under the same conditions as EU TSOs, including compliance with market rules and regulatory standards. Given the advanced integration of the Swiss electricity system into the European grid, excluding Swissgrid from OPDE access would undermine the completeness of CGMs and coordinated security analyses, conflict with the spirit of the ongoing cooperation framework and create legal uncertainty and operational inefficiencies. Regarding EnC TSOs, in case EU Member States and the European Commission aim for EU TSOs to share their IGMS and CGMS with them or with other third country TSOs, this needs to be clearly established in SO GL; otherwise, national law might prohibit some TSOs from sharing their IGMs (confidential information) which will lead to incomplete IGMs and CGMs and the impossibility to carry out reliable coordinated operational security analyses. All EnC TSOs must comply with the unbundling requirements established in the Electricity Directive, as incorporated into the EnC legal framework by decision of the EnC Ministerial Council 2021/13/MC-EnC, and further amended by 2022/03/MC-EnC.
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			With reference to third country TSOs falling under Article 13(2)(1), any confidentiality and security requirements for third-country TSOs accessing OPDE shall be addressed through the respective agreements.
22.1.d	(d) re-calculate day-ahead and intraday cross-zonal capacities in accordance with Regulation (EU) 2015/1222;	(d) re-evaluate day-ahead and intraday cross-zonal capacities in accordance with Regulation (EU) 2015/1222;	The re-evaluation of cross-zonal capacities is a last resort measure that TSOs need to avoid the system going in emergency state. • The determination of secure cross-zonal capacities and the coordination of available remedial actions towards real-time is in the first place to be achieved through DACC/IDCC/ROSC processes. • However, it may happen that the system conditions evolve in an unforeseen way (for example outage of an interconnector), leading to a situation where, despite the use of all available RDCT measures, the previously calculated cross-zonal capacities are no longer secure Acknowledging that it is not necessarily a “recalculation”, ENTSO-E proposes to adapt the origin text by replacing “recalculate” by

			“reevaluate”. This would maintain the already existing possibility for TSOs to reevaluate day ahead and intraday cross-border capacities as a remedial action when this is needed after an outage or an evolution of the situation unforeseen in the previous capacity calculation. This re-evaluation of capacity is not a capacity curtailment. Capacity curtailment only applies to already allocated capacity, in cases of Force Majeure or emergency situation, and does not cover cases where capacity needs to be reevaluated in order not to offer capacity still unallocated to the market if it would endanger system security. This possibility to re-evaluate capacity should be preserved to: • manage outages of significant grid elements. In case of outage of an HVDC or interconnector, the capacity should be re-calculated to reflect the unavailability and preventing TSOs from offering what is not available anymore without imposing additional costs and risking system security; • facilitate the purpose of active power exchange due to adequacy issues in accordance with article 21 emergency and restoration network code • ensure the most economical system operation by updating capacity as soon
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			as new relevant information becomes available. If capacity is not updated accordingly, this may lead to unnecessary costs linked to special regulation, countertrading, or redispatch; • maximise available capacity for RES (Renewable Energy Sources). Since RES generation can be the limiting factor for available transmission capacity, a change in RES forecast — especially a downward revision — can free up additional capacity for the market. Therefore, re-evaluation in response to updated RES forecasts enables more efficient utilisation of the grid and allows for greater market participation. This also allows to manage security in case of updated (due to outages or not) forecast of flows that requires a reduction of the available capacity • prevent the market from nullifying an already agreed costly remedial action : in case of agreed countertrading measure, following an unplanned event, there is a need to prevent the still unallocated capacity on a border to be offered to the market which would result in an even higher volume of countertrading, potentially higher than what can be safely offered by the TSOs.
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40.3 - 5	3. Each TSO shall gather the following information about its <u>observabilitycontrol</u> area and shall exchange this data with all other TSOs to the extent that it is necessary for carrying out the operational security analysis <u>about their observability area</u> in accordance with Article <u>7271</u>: <u>(a) generation;</u> <u>(b) consumption;</u> <u>(c) schedules;</u> <u>(d) balance positions;</u> <u>(e) planned outages structural data in accordance with Articles 41, 43, 45 and substation topologies;48;</u> <u>scheduling and forecast data in accordance with Articles 41, 46 and 49;</u> <u>real-time data in accordance with Articles 42, 44, 47 and 50; and</u> <u>provisions in accordance with Articles 51, 52 and 53.</u> <u>(f) forecasts.</u> 4. Each TSO shall <u>represent-exchange</u> the <u>information in data pursuant to</u> paragraph <u>(3) as injections and withdrawals at each node of (a), (b) and (d) with relevant regional coordination centres to the TSO's individual grid model referred to in Article 64</u> <u>extent</u>	3. Each TSO shall gather the following information about its <u>observabilitycontrol</u> area and shall exchange this data with all other TSOs to the extent that it is necessary for carrying out the operational security analysis <u>about their observability area</u> in accordance with Article <u>7271</u>: <u>(a) generation;</u> <u>(b) consumption;</u> <u>(c) schedules;</u> <u>(d) balance positions;</u> <u>(e) planned outages structural data in accordance with Articles 41, 43, 45 and substation topologies;48;</u> <u>scheduling and forecast data in accordance with Articles 41, 46 and 49;</u> <u>real-time data in accordance with Articles 42, 44, 47 and 50; and</u> <u>provisions in accordance with Articles 51, 52 and 53.</u> <u>(f) forecasts.</u> 4. Each TSO shall exchange the data pursuant to paragraph 3(a), and (b) and (d); and pursuant to paragraph 5(a), with relevant regional coordination centres to the extent that it is necessary for carrying out their tasks.	Paragraph 4 and 5 introduces the need to share additional data with RCCs. The reasoning for introducing the additional need to share these data with RCCs is unclear to TSOs. The exchange of data and the timings to share specific data by TSOs with RCCs is defined via specific methodologies serving certain purposes, such as Common grid model methodology, capacity calculation, ROSC, OPC, etc. These methodologies serve the main tasks and accompanying responsibilities as defined in the Electricity Regulation. Therefore it is not required to specify additional requirements here. Additionally, RCCs have been added to the scope of KORRR in paragraph 5. The purpose of the KORRR methodology is to specifically describe the Key Organisational Requirements, Roles and Responsibilities between TSOs, (C)DSOs and SGUs. RCCs are not part of this as, explained before, these are covered by other methodologies which are not directly relevant for (C)DSOs and SGUs. More specific to the data; Thermal limits, some technical capacities and over-current protection settings are already included in the IGM/CGM data, which are delivered following the CGMM timings. TSOs do not see a need to share those

	<u>that it is necessary for carrying out their tasks.</u> 5. All TSOs shall jointly develop, review and propose amendments where necessary to the key organisational requirements, roles and responsibilities in relation to data exchange. They shall apply to all data exchange provisions in this Title and shall include organisational requirements, roles and responsibilities for the following elements: (a) obligations for TSOs to communicate without delay to all neighbouring TSOs and relevant regional coordination centres any changes in the protection settings, thermal limits and technical capacities at the interconnectors between their control areas; (b) [...]	5. All TSOs shall jointly develop, review and propose amendments where necessary to the key organisational requirements, roles and responsibilities in relation to data exchange. They shall apply to all data exchange provisions in this Title and shall include organisational requirements, roles and responsibilities for the following elements: (a) obligations for TSOs to communicate without delay to all neighbouring TSOs and relevant regional coordination centres any changes in the protection settings, thermal limits and technical capacities at the interconnectors between their control areas;	data “without delay” as the CGMM timings are sufficient for the provisions of RCC tasks. The rest of the data included in the paragraph is for dynamic analyses and real-time processes which are not RCCs’ tasks. Consequently, the addition of RCCs in the paragraph is not needed for RCCs tasks. It means an inefficient requirement for TSOs to exchange data ‘without undue delay’ that will be not used by RCCs. In order to cover EC concerns about gaps on information exchange, we propose an improvement in previous paragraph, where the requirement to exchange data with RCCs applies “to the extend it is necessary for carrying out their tasks”. With regards to paragraph 4, based on TSOs’ understanding, the reference included in Art.40(4) to Art.40(3) when specifying the data to be exchanged with RCCs aims to cover: • Structural data in accordance with Articles 41, 43, 45 and 48; • Scheduling and forecast data in accordance with Articles 41, 46 and 49; • Provisions in accordance with Articles 51, 52 and 53. This means that “<i>real-time data in accordance with Articles 42, 44, 47 and 50</i>” shall not be exchanged with relevant RCCs.
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			However, Article 51 (which refers to data that is included in the list of data that shall be exchanged with RCCs), includes references to data covered in Article 50, which is specified as data that shall not be shared with RCCs: <i>Article 51</i> Data exchange between TSOs and DSOs concerning significant power generating modules 1. Unless otherwise provided by the TSO, each DSO shall provide to its TSO the information specified in Articles 48, 49 and 50 with the frequency and level of detail requested by the TSO. 2. Each TSO shall make available to the DSO, to whose distribution system SGUs are connected, the information specified in Articles 48, 49 and 50 as requested by the DSO. 3. A TSO may request further data from a power generating facility owner of a power generating module which is a SGU in accordance with Article 2(1)(a) and (e) connected to the distribution system, if it is necessary for the operational security analysis and for the validation of models. Also, Articles 52 and 53 include provisions regarding real-time data exchange from transmission-connected demand facilities (Article 52(3)) and from distribution-connected demand facilities or third parties participating in demand response (Article 53(1)(c) and Article 53(2)(c)). This data, being classified as real-time data, should also not be exchanged with RCCs, because RCCs do not perform real-time tasks.
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64	<i>Article 64</i> <u>General provisions regarding Common grid model methodology</u> individual and common grid models 1. To perform operational security analysis pursuant to Title 2 of this Part, each TSO shall prepare individual grid models in accordance with the methodologies established in application of Article 17 of Regulation (EU) 2015/1222 and Article 18 of Regulation (EU) 2016/1719 for each of the following time-frames¹, applying the data format established pursuant to Article 114(2): All TSOs shall apply the common grid model methodology establishing rules and procedures for building the individual and common grid models for each of the following time-frames: a. year-ahead, in accordance with Articles 66, 67 and 68; month-ahead; b. where applicable, week-ahead, in accordance with Article 69; c. two-days ahead; in accordance with Article 70; and d. day-ahead and intraday, in accordance with Article 70.	<i>Article 64</i> <u>General provisions regarding Common grid model methodology</u> individual and common grid models 1. To perform operational security analysis pursuant to Title 2 of this Part, each TSO shall prepare individual grid models in accordance with the methodologies established in application of Article 17 of Regulation (EU) 2015/1222 and Article 18 of Regulation (EU) 2016/1719 for each of the following time-frames¹, applying the data format established pursuant to Article 114(2): All TSOs shall apply the common grid model methodology establishing rules and procedures for building the individual and common grid models for each of the following time-frames: a. year-ahead, in accordance with Articles 66, 67 and 68; month-ahead where security analysis based on multiple scenarios is applied; b. where applicable, week-ahead, in accordance with Article 69; c. two-days ahead; in accordance with Article 70; and d. day-ahead and intraday, in accordance with Article 70.	General comment on CGM articles: A more generic approach can be taken - list the timeframes that are required to be covered by CGM, list the business processes which require usage of CGM and specify the timeframe. In case there is some exception - outline it. In general the code and the methodologies should be open to innovation and integration of new technologies and it should be able to adapt CGM content and calculation algorithms in a flexible way as long as it bring clear benefit in regards to optimal usage of the power system and enabling the market. This Article introduces precise timings and timestamps. For the avoidance of doubt and inconsistency, timings should be placed only in the CGMM and the related “timing document”, Pan-European Operational Process Timings Framework. This document aims at gathering all timings reference of the CGM building process and other processes relying on CGM. This approach has been approved by TSOs and communicated to ACER, accordingly. Further, the addition of the month-ahead timeframe seems to be unrelated to the amendments needed based on the CACM 2.0 Proposal. Additionally, pursuant to FCA art.18.2, the month-ahead timeframe is only used where security analysis based on multiple scenarios is applied. This should be consistently mentioned in
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	2. The individual grid models <u>common grid model methodology pursuant to paragraph 1</u> shall include <u>at least:</u> a. the structural rules <u>for determining common grid scenarios for transmission system conditions for each time-frame referred to in paragraph 1;</u> b. <u>the number of common grid scenarios per time-frame;</u> c. <u>common rules for building individual grid models based on common grid scenarios;</u> d. <u>common rules and governance for merging individual grid models into common grid model;</u> e. <u>deadlines for gathering information and data set out in Article 41 to establish individual grid models, collecting individual grid models for merging them into a common grid model and for saving individual and common grid models. These deadlines shall be compatible with the regional processes established</u>	2. The individual grid models <u>common grid model methodology pursuant to paragraph 1</u> shall include <u>at least:</u> a. the structural rules <u>for determining common grid scenarios for transmission system conditions for each time-frame referred to in paragraph 1;</u> b. <u>the number of common grid scenarios per time-frame;</u> c. <u>common rules for building individual grid models based on common grid scenarios;</u> d. <u>common rules and governance for merging individual grid models into common grid model;</u> e. deadlines for gathering information and data set out in Article 41 to establish individual grid models, collecting individual grid models for merging them into a common grid model and for saving individual and common grid models. These deadlines shall be compatible with the regional processes established for coordinated capacity calculation in accordance with Article 31 of	all articles mentioning the month-ahead timeframe. The reference in paragraph 3 to Article 114(2).<u>paragraph (1)(a), (b) and (c)</u> should be corrected. It is unclear which article was intended to be referred to.
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	<u>for coordinated capacity calculation in accordance with Article 31 of CACM and regional operational security coordination in accordance with article 76 of this Regulation.</u> f. <u>3. Each TSO common rules for determining the net position in each bidding zone and the power flow for each HVDC system and flows from third countries. These common rules shall build the be based on the best forecast of the net position for each bidding zone and on the best forecast of the power flows on each HVDC system for each common grid model;</u> g. <u>quality control of individual grid models and each regional security coordinator shall contribute the common grid model to building the be implemented to ensure their completeness and consistency; and</u> h. <u>correction and improvement of individual and common grid models applying the data format established,</u>	CACM and regional operational security coordination in accordance with article 76 of this Regulation. f. <u>3. Each TSO common rules for determining the net position in each bidding zone and the power flow for each HVDC system and flows from third countries. These common rules shall build the be based on the best forecast of the net position for each bidding zone and on the best forecast of the power flows on each HVDC system for each common grid model;</u> g. <u>quality control of individual grid models and each regional security coordinator shall contribute the common grid model to building the be implemented to ensure their completeness and consistency; and</u> h. <u>correction and improvement of individual and common grid models applying the data format established, implementing at least the quality controls referred to in point (g),</u>	
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	<u>implementing at least the quality controls referred to in point (g), and detailed in article 70, to ensure the convergence of the load-flow calculations.</u> <u>3.The common grid model methodology pursuant to Article 114(2).paragraph (1)(a), (b) and (c) shall determine the following elements concerning the year-ahead, month-ahead and two days-ahead individual and common grid models:</u> <u>i. definition of timestamps, where for the two days-ahead grid models the timestamps shall be at least hourly; and</u> <u>ii. handling any additional relevant information related to operational arrangements, such as protection setpoints or system protection schemes, single line diagrams and configuration of substations in order to perform capacity calculation and manage operational security.</u> <u>4. The common grid model methodology pursuant to paragraph (1)(d) shall determine the handling of additional information related to operational arrangements, such as protection setpoints or system protection schemes, single line diagrams and configuration of substations in order to perform capacity calculation and manage operational security.</u>	<u>and detailed in article 70, to ensure the convergence of the load-flow calculations.</u> <u>3.The common grid model methodology pursuant to Article 114(2).paragraph (1)(a), (b) and (c) shall determine the following elements concerning the year-ahead, month-ahead and two days-ahead individual and common grid models:</u> <u>i. definition of timestamps, where for the two days-ahead grid models the timestamps shall be at least hourly; and</u> <u>ii. handling any additional relevant information related to operational arrangements, such as protection setpoints or system protection schemes, single line diagrams and configuration of substations in order to perform capacity calculation and manage operational security.</u> <u>4. The common grid model methodology pursuant to paragraph (1)(d) shall determine the handling of additional information related to operational arrangements, such as protection setpoints or system protection schemes, single line diagrams and configuration of substations in order to perform capacity calculation and manage operational security.</u>	
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		5. ENTSO-E shall publish, and update when necessary, the Timings Framework for Pan-european operational processes. This document shall present the deadlines for gathering information to establish individual grid models, collecting individual grid models and for merging them into a common grid model. These deadlines shall be aligned with the deadlines of all operational processes relying on the common grid model.	
67.2	2. Each TSO shall have the right to request from another TSO any information on modifications to the network topology or on operational arrangements, such as protection setpoints or system protection schemes, single line diagrams and configuration of substations or additional grid models relevant for the provision of an accurate representation of the transmission system to undertake operational security analysis	SO GL art 41(2): 2. To coordinate the protection of their transmission systems, neighbouring TSOs shall exchange the system protection schemes and the protection setpoints of the lines for which the contingencies are included as external contingencies in their contingency lists. SO GL art41(3) 3. To coordinate their operational security analysis and to establish the common grid model in accordance with Articles 67, 68, 69 and 70, each TSO shall exchange, with at least all other TSOs from the same synchronous area, at least the following data: a. the topology of the 220 kV and higher voltage transmission systems within its control area, including single line diagrams; [...]	TSOs identified small gaps with the removal of this provision. The gaps can be covered directly in the dedicated articles for data exchange between TSOs as proposed.

67.4	The two-days ahead individual grid models used for day-ahead capacity calculation shall include the best forecasts of remedial actions, to the extent that such forecast can be made with reliable quality, either through individual or regional operational security analysis. Those remedial actions shall be clearly distinguishable from the injections and withdrawals established in accordance with Article 40(3) and the network topology without remedial actions applied. Network topology and set-point of any network element, shall be considered as forecasts and not as remedial actions.	New paragraph in art.66 <u>The two-days ahead individual grid models used for day-ahead capacity calculation shall include the best forecasts of remedial actions, market positions, outages, unavailability of relevant significant grid users and the network topology supporting these forecasts. This to the extent that such forecast can be made with reliable quality, either through individual or regional operational security analysis. A monitoring of this quality is to be performed in the DACC process of each CCR. Those remedial actions shall be clearly distinguishable from the injections and withdrawals established in accordance with Article 40(3) and the network topology without remedial actions applied. Network topology and set point of any network element, shall be</u>	TSOs' concerns on this amendment are strongly linked to the ones presented for the proposed amendment on Article 20(2). Here, TSOs provide further considerations relevant for Article 67(4). D-2 IGMs shall include the necessary information on the unavailable network elements, generation assets and market forecasts, but not potential remedial actions. From a technical point of view, all potentially available remedial actions to be considered for the capacity calculation are shared separately from the IGM and are used in the capacity calculation process to identify the overall optimal combination of Remedial Actions to maximize the capacities while maintaining system security. The proposed amendments ("forecast of remedial actions", "Those remedial actions shall be clearly distinguishable....") contradict this clear technical distinction. The suggested added value of integrating a first set of

		considered as forecasts and not as remedial actions.	remedial actions as improved “initial value” to the optimisation problem of the capacity calculation is neither guaranteed nor previously been identified as necessary. Beyond that, the requested distinguishability between “those remedial actions” is incompatible with the CGME Standard. In addition, a “best [and reliable] forecast of remedial actions” does not exist at the point of IGM creation. Finally, as the sentence refers to two-days ahead IGM, it should be moved to: Art.66 - Year-ahead, month-ahead and two day ahead individual grid models. It is important to set requirements to ensure a high quality grid model in accordance with the standards described within the common grid model methodology and the specific needs of the capacity calculation methodology per CCR. TSOs should ensure that the network topology is adjusted to support the market positions and the known planned and unplanned outages and respects operational security limits. Note, this applies even with congestion free individual grid models. After the merge towards a common grid model the possibility of congestions still exists. By proper analysis as part of the Day ahead process and recurring issues, anticipatory measures may be taken in an IGM by a TSO, but coordinated within the relevant CCR.
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75.1, 4-7	1. All TSOs of each capacity calculation region shall jointly develop, review and where necessary propose amendments, the methodology for regional operational security coordination, to be applied by the regional coordination centres and the TSOs of the capacity calculation region. This methodology shall respect the methodology for coordinating operational security analysis developed in accordance with Article 74(1). The proposal shall determine: (a) conditions and frequency of intraday coordination of operational security analysis and updates to the common grid model by the regional coordination centre; (b) the methodology for the coordination of remedial actions, taking into account the requirements in Articles 20 to 23 and determining at least: (i) the procedure for exchanging the information of the available remedial actions, between relevant TSOs and the regional coordination centre;	1. All TSOs of each capacity calculation region shall jointly develop, review and where necessary propose amendments, the methodology for regional operational security coordination, to be applied by the regional coordination centres and the TSOs of the capacity calculation region. This methodology shall respect the methodology for coordinating operational security analysis developed in accordance with Article 74(1). The proposal shall determine: (a) conditions and frequency of intraday coordination of operational security analysis and updates to the common grid model by the regional coordination centre; (b) the methodology for the coordination of remedial actions, taking into account the requirements in Articles 20 to 23 and determining at least: i. the procedure for exchanging the information of the available remedial actions, between relevant TSOs and the regional coordination centre;	Under further review by TSOs, so the wording proposal is unchanged for now. TSOs would like to raise attention on the following points: 1) Paragraph 2 refers to: coordinated and uncoordinated cross-border relevant RA. For clarity, TSOs suggest referring to all cross-border relevant RA in general. 2) The choice of the flow decomposition methodology should be left open for TSOs to agree at CCR level (in line with article 16.13 of the ER). A clear reference to a flow type, such as allocated flow, should not be made. 3) The text should consider that, for CCRs in which internal loop flows resulting from transactions internal to bidding zones are negligible, a simplified distribution of RA costs has been agreed (it is the case for SWE and HANSA regions). As a general concern that affects all paragraphs in Article 75, it is noted that two different methodologies (ROSC and cost-sharing) are being mixed. Requirements related to each one of these methodologies should be separated to avoid any misunderstanding regarding what is covered by each methodology. Both ROSC and cost-sharing have different objectives. ROSC
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	(ii) the classification of constraints and the remedial actions in accordance with Article 22; (iii) the identification of network elements of cross-border relevance i.e. on which operational security violations need to be managed in a coordinated way; (iv) the identification of cross-border relevant remedial actions, i.e. remedial actions that need to be managed in a coordinated way; (v) the identification of the most effective and economically efficient remedial actions in case of operational security violations (vi) the preparation and activation of the remedial actions identified pursuant to point v in accordance with Article 23(2); <u>(c)</u> the rules for sharing the costs of cross-border relevant remedial actions as	ii. the classification of constraints and the remedial actions in accordance with Article 22; iii. the identification of network elements of cross-border relevance i.e. on which operational security violations need to be managed in a coordinated way; iv. the identification of cross-border relevant remedial actions, i.e. remedial actions that need to be managed in a coordinated way; v. the identification of the most effective and economically efficient remedial actions in case of operational security violations vi. the preparation and activation of the remedial actions identified pursuant to point v in accordance with Article 23(2); vii. the rules for sharing the costs of cross-border relevant remedial	focus on ensuring operational security in operational planning phase. The objective of cost-sharing, despite the cost are a result of ROSC, should provide <i>incentives</i> to TSOs to take the correct investments to either solve congestions or reduce costs to solve these, and which are out of the operational planning phase. The interdependencies between both methodologies have already been accounted for in their development and implementation. In the proposal, therefore, ROSC (ex-ante and operational process) and cost-sharing (ex-post) are separated. With respect to the cost-sharing methodology, new obligations for TSOs and requirements based on this methodology have been established in paragraph (4)-(7). The methodology pursuant to Art. 16(13) of Regulation 2019/943 establishes that “regulatory authorities shall analyse to what extent flows resulting from transactions internal to bidding zones contribute to the congestion between two bidding zones observed”, meaning that, in those cases in which transactions internal to bidding zones do not significantly contribute to cross border congestions, a simplified distribution of RA cost can be agreed between the respective TSOs and NRAs. This should be reflected in the text to avoid new requirements for Member States in which internal loop flows resulting from
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	determined pursuant to paragraph Article4 and 6. <u>2. Regional operational security coordination shall be able to modify any cross-border relevant remedial actions resulting from previous coordinated or uncoordinated use of cross-border relevant remedial actions, except those which have already been ordered.</u> <u>3. Each TSO shall be able to modify the setpoint of all resources not owned by TSOs that are impacted by the remedial actions identified according to paragraph 1(b)(iv) in accordance with the appropriate mechanisms and agreements applicable to its control area, including interconnectors. The relevant resource owners shall provide TSOs ex ante all the information necessary for deciding on whether their resources can and/or need to be committed. This information shall be shared on request between the relevant TSOs and relevant RCCs for regional operational security coordination purposes only.</u> 4The costs of cross-border relevant remedial actions activated in accordance with the methodology pursuant to paragraph 1 shall be distributed between the TSOs according to Article 16(13) of Regulation 2019/943 and respect <u>at least</u> the following principles:	actions as determined pursuant to paragraph 4 and 6. 4. The costs of cross-border relevant remedial actions activated in accordance with the methodology pursuant to paragraph 1 shall be distributed between the TSOs according to Article 16(13) of Regulation 2019/943 and respect at least the following principles:	transactions internal to bidding zones are almost negligible and a simplified distribution of RA costs has been agreed, as it is the case for SWE and HANSA regions. TSOs would like clarification on the meaning of paragraph 4.b: " b. be consistent with the responsibilities and liabilities of the TSOs involved". TSOs agree that the need to define a loop flow threshold and its value should be decided at regional level and based on a regional assessment. The SO Regulation should only prescribe pan-European rules. For consistency with the ER, a precision has been added in the paragraph 5 of the EC proposal, regarding the approval of the analysis pursuant to art.16(13) of the ER (last paragraph is the EE wording proposal). Finally, TSOs would like the provisions in the article to be clearer to avoid any ambiguity in the text.
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	a) provide incentives to manage congestion, including remedial actions and incentives to invest effectively; b) be consistent with the responsibilities and liabilities of the TSOs involved; b) ensure a fair distribution of costs and benefits between the TSOs involved; c) be compatible across the day-ahead and intraday market time-frames; and d) comply with the principles of transparency and non-discrimination. 5. In accordance with Article 16(13) of Regulation 2019/943, all TSOs in a capacity calculation region shall analyse the level of loop flows that could be expected without structural congestion in a bidding zone. This level shall be analysed for each individual bidding zone border as well as for each cross-border relevant network element identified pursuant to paragraph 1(b)(iii), taking into	a) provide incentives to manage congestion, including remedial actions and incentives to invest effectively; b) be consistent with the responsibilities and liabilities of the TSOs involved; c) ensure a fair distribution of costs and benefits between the TSOs involved; d) be compatible across the day-ahead and intraday market time-frames; and e) comply with the principles of transparency and non-discrimination. a. In accordance with Article 16(13) of Regulation 2019/943, all TSOs in a capacity calculation region shall analyse the level of loop flows that could be expected without structural congestion in a bidding zone. This level shall be analysed for each individual bidding zone border as well as for each cross-border relevant network element identified pursuant to paragraph 1(b)(iii). 5. In accordance with Article 16(13) of Regulation 2019/943, all TSOs in a capacity calculation region shall analyse the level of loop flows that could be expected without structural congestion in a bidding zone. This level shall be analysed for each individual bidding zone border as well as for each cross-border relevant network element identified pursuant to paragraph 1(b)(iii).	
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	<u>account the characteristics of the bidding zones.</u> <u>6.</u> No later than 18 months after the approval of the methodology for identification of congestions pursuant to [CACM Regulation], all TSOs in a capacity calculation region shall jointly develop, review and, where necessary, propose amendments to the level of loop flows that could be expected without structural congestion in a bidding zone. The proposal shall be based on an analysis pursuant to paragraph 5 <u>and taking into account principles listed in (4).</u> which shall be attached to the proposal, and shall define this level for each bidding zone in a capacity calculation region generating loop flows and for each individual bidding zone border as well as for each cross-border relevant network element identified pursuant to paragraph 1(b)(iii). In case the sum of loop flow levels on a given cross-border relevant network element that are originating from all bidding zones in a capacity calculation region exceed a common level of [X]% of maximum flow, then the levels from individual originating bidding zones shall be proportionally reduced in a way that their sum equals [X]% of maximum flow. All TSOs in a capacity calculation region may also join this proposal with the methodology pursuant to paragraph 1.		
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	7. The rules for sharing the costs of cross-border relevant remedial actions referred to in paragraph 1 b) (vii) shall comprise the following steps: - Distribution of the total costs of cross-border relevant remedial actions to relevant network elements identified pursuant to Article 75(1)(b)(iii); - Identification of different types of flows on relevant network elements, differentiating at least loop flows, internal flows, allocated flows and flows resulting from phase shifting transformers; - Attribution of the costs referred to in a) first to loop flows originating from bidding zones in a CCR and which exceed the level referred to in paragraph 5. If the overload is higher than the level of loop flows as identified pursuant to paragraph 5, the costs for the remaining overload shall be attributed to other flows and shall be covered by TSOs owning or operating the concerned network elements. If the individual level is not fully used by some bidding zones, the leftover can be used to	7. The rules for sharing the costs of cross-border relevant remedial actions referred to in paragraph 1 b) (vii) shall comprise the following steps: Distribution of the total costs of cross-border relevant remedial actions to relevant network elements identified pursuant to Article 75(1)(b)(iii); Identification of different types of flows on relevant network elements, differentiating at least loop flows, internal flows, allocated flows and flows resulting from phase shifting transformers; Attribution of the costs referred to in a) first to loop flows originating from bidding zones in a CCR and which exceed the level referred to in paragraph 5. If the overload is higher than the level of loop flows as identified pursuant to paragraph 5, the costs for the remaining overload shall be attributed to other flows and shall be covered by TSOs owning or operating the concerned network elements. If the individual level is not fully used by some bidding zones, the leftover can be used to increase the threshold for bidding zones which exceed this level. New art. XX on cost sharing 1. The costs of cross-border relevant remedial actions activated in accordance with the methodology pursuant to paragraph 75.1 shall, where required under Article 16(13) of Regulation 2019/943, be distributed between the TSOs	
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	increase the threshold for bidding zones which exceed this level.	according to Article 16(13) of Regulation 2019/943 and respect at least the following principles: a) provide incentives to manage congestion, including remedial actions and incentives to invest effectively; b) be consistent with the responsibilities and liabilities of the TSOs involved; c) ensure a fair distribution of costs and benefits between the TSOs involved; d) be compatible across the day-ahead and intraday market time-frames; and e) comply with the principles of transparency and non-discrimination. (f) the rules for sharing the costs of cross-border relevant remedial actions as determined pursuant to paragraph 2. f) this article should only apply if the methodology of Article 16(13) of Regulation 2019/943 has been implemented 2. No later than 18 months after the approval of the methodology for identification of congestions pursuant to [CACM Regulation], all TSOs in a capacity calculation region, where required under Article 16(13) of Regulation 2019/943, shall jointly develop, review and, where necessary, propose amendments to the level of loop flows that could be expected without structural congestion in a bidding zone. The proposal shall be based on an analysis pursuant to paragraph 5, which shall be	
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		attached to the proposal, and shall define this level for each bidding zone in a capacity calculation region generating loop flows and-for each individual bidding zone border as well as for each cross-border relevant network element identified pursuant to paragraph 1(b)(iii). In case the sum of loop flow levels on a given cross-border relevant network element that are originating from all bidding zones in a capacity calculation region exceed a common level of [X]% of maximum flow, then the levels from individual originating bidding zones shall be proportionally reduced in a way that their sum equals [X]% of maximum flow. All TSOs in a capacity calculation region may also join this proposal with the methodology pursuant to paragraph 1. 3. In accordance with Article 16(13) of Regulation 2019/943, all TSOs in a capacity calculation region shall analyse the level of loop flows that could be expected without structural congestion in a bidding zone. This level shall be analysed for each individual bidding zone border as well as for each cross-border relevant network element identified pursuant to paragraph 1(b)(iii) and shall be subject to the approval of all regulatory authorities in the capacity calculation region.	
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75.8	8. Upon request of ACER but not earlier than 1 December 2030³⁰²⁷, all TSOs shall develop a proposal for harmonisation of methodologies for regional operational security coordination across all capacity calculation regions. This proposal shall harmonise as far as possible the rules, procedures and mechanisms for regional operational security coordination aiming to maximise its overall efficiency and effectiveness.	Upon request of ACER but not earlier than 1 December 2030, all TSOs shall develop a proposal for harmonisation of methodologies for regional operational security coordination across all capacity calculation regions. This proposal shall harmonise as far as possible the rules, procedures and mechanisms for regional operational security coordination aiming to maximise its overall efficiency and effectiveness.	This new paragraph establishes the mandate for TSOs to harmonise the ROSC methodology. TSOs propose to remove that paragraph for the following reasons: 1. There is already a pan-European methodology that harmonizes the process of coordinated security analyses, which is CSAm, according to Article 74: «<i>Methodology for coordinating operational security analysis</i>». The ROSC methodology enables the necessary regional specificities to be addressed by each CCR. While the CSAm methodology ensures the highest possible level of harmonization across all aspects, the ROSC methodology allows for the consideration of different characteristics and specificities of each CCR. 2. The implementation of ROSC is still ongoing. The proposed timeline would impact the current implementation of the ROSC in some regions. 3. TSOs need to gain experience on the process before investigating potential improvements. 4. TSOs are already working on harmonisation of ROSC Core and IN. However, the other regions are too different, and the specific requirements of each region should be preserved.
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			Therefore, from the TSOs' perspective, it is not clear the reasoning for the harmonisation of the ROSC methodology, whose aim is to address the specific conditions of each CCR. In case this provision is kept, TSOs request to consider the following: • A proposal for harmonisation can only be made based on an assessment that justifies the need for such harmonisation. • Given that each region has its own specificities, the harmonisation should not be considered at a Pan-European level. Potential elements for harmonisation could be identified between two regions only, and not across all. • For the assessment of harmonisation to be reliable, TSOs need to gain experience on the process. The timeline should consider this. Potential wording proposal: Upon request of ACER, but not earlier than 2 years after the implementation of regional operational security coordination methodology in accordance with Article has been
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			implemented in all capacity calculation regions, ENTSO for Electricity shall conduct an assessment to determine the need to harmonise the rules, procedures and mechanism for regional operational security coordination between regions. The assessment shall identify the elements of the regional operational security coordination methodologies that should be harmonised to maximise the efficiency and effectiveness of the coordination process between regions. Where the assessment demonstrates the need for harmonisation of specific elements of the regional operational security coordination methodologies in specific regions, the concerned TSOs shall develop a proposal to harmonise the methodology for coordinating operational security analysis pursuant to Article 74 in those regions. This proposal shall be developed within one year after the completion of the assessment and shall be submitted for approval to the relevant national regulatory authorities in accordance with Article 6(3)(b) and (7) of this Regulation.
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106	Article 106 Control area adequacy in week-ahead, day-ahead and intraday 1. Each regional coordination centre shall perform a control area adequacy analysis in <u>its system operation region in</u> a week-ahead, day-ahead and intraday time-frame on the basis of: (a) schedules referred to in Article 110; (b) forecasted load; (c) forecasted generation from renewable energy sources; (d) active power reserves in accordance with the data provided pursuant to Article 46(1)(a); (e) control area import and export capacities consistent with cross-zonal capacities calculated where applicable in accordance with Article 14 of Regulation (EU) 2015/1222; (f) capabilities of power generating modules in accordance with the data provided pursuant to Article 43(4) and Articles 45 and 51 and their availability statuses; and capabilities of demand facilities with demand response in accordance with the data provided	Article 106 Control area adequacy in week-ahead, day-ahead and intraday 1. Each TSO shall perform a control area adequacy analysis in a day-ahead and intraday time-frame on the basis of: (a) schedules referred to in Article 110110; (b) forecasted load; (c) forecasted generation from renewable energy sources; (d) active power reserves in accordance with the data provided pursuant to Article 46(1)(a); (e) control area import and export capacities consistent with cross-zonal capacities calculated where applicable in accordance with Article 14 of Regulation (EU) 2015/1222; (f) capabilities of power generating modules in accordance with the data provided pursuant to Article 43(4) and Articles 45 and 51 and their availability statuses; and (g) capabilities of demand facilities with demand response in accordance with the data provided pursuant to Articles 52 and 53 and their availability statuses.	The proposed changes seem to fall outside the scope of the amendments that are necessary based on the CACM 2.0 Proposal. TSOs object to the removal of the requirements addressing the TSO's responsibility to perform control area adequacy assessment in day-ahead and intraday. In particular, according to Article 37(1)(e) of the Regulation 943/2019, RCCs shall carry out regional week ahead to at least day-ahead system adequacy forecasts. However, Recital (10) of the Regulation reiterates that TSOs should remain responsible for the tasks entrusted to them under Article 40 of Directive (EU) 2019/944. In light of this, it is essential that the TSOs' task to perform control area adequacy assessment is clearly defined in SO GL, while the RCC task on regional adequacy analysis should eventually be tackled in the dedicated article 81 of SO GL: Regional adequacy assessment. Additionally, this article is cross-referenced in NC ER art.21 and any changes to it would lead to inconsistency between the codes as it would remove the possibility for TSOs to request assistance from each other in case control area adequacy issue is detected.
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	pursuant to Articles 52 and 53 and their availability statuses. 2. Each regional coordination centre shall evaluate: (a) the minimum level of import and the maximum level of export compatible with its each control area adequacy; (b) the expected duration of a potential absence of adequacy; and (c) the amount of energy not supplied in the absence of adequacy. 3. Where, following the analysis in paragraph 1, adequacy is not fulfilled, each TSO shall notify the absence of adequacy to its regulatory authority or other competent authority. The TSO shall provide its regulatory authority or other competent authority with an analysis of the causes of the absence of adequacy and propose mitigating actions. 4. Each TSO shall support regional coordination centre by providing necessary data and contributing to analyses, as requested.	2. Each TSO shall evaluate: (a) the minimum level of import and the maximum level of export compatible with its control area adequacy; (b) the expected duration of a potential absence of adequacy; and (c) the amount of energy not supplied in the absence of adequacy. 3. Where, following the analysis in paragraph 1, adequacy is not fulfilled, each TSO shall notify the absence of adequacy to its regulatory authority or other competent authority. The TSO shall provide its regulatory authority or other competent authority with an analysis of the causes of the absence of adequacy and propose mitigating actions. 4. Each TSO shall support regional coordination centre by providing necessary data and contributing to analyses, as requested.	
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109-113	<i>Article 110109</i> Establishment of scheduling processes 1. When establishing a scheduling process TSOs shall take into account and complement where necessary the operational conditions of the generation and load data methodology developed in accordance with Article 16 of Regulation (EU) 2015/1222. 21. Where a bidding zone covers only one control area, the geographical scope of the scheduling area is equal to the bidding zone. Where a control area covers several bidding zones, the geographical scope of the scheduling area is equal to the bidding zone. Where a bidding zone covers several control areas, TSOs within that bidding zone may jointly decide to operate a common scheduling process, otherwise, each control area within that bidding zone is considered a separate scheduling area. 3. For<u>2. The owner of</u> each power generating facility and demand facility subject to requirements for scheduling set out in the national terms and conditions, the concerned owner at each connection point shall appoint or act as a scheduling agentbalance responsible party, without prejudice to derogations pursuant to Article 5 of Regulation (EU) 2019/943. 43. Each market participant and shipping agent, subject to requirements for scheduling set out in the national terms and	<i>Article 110109</i> Establishment of scheduling processes 1. When establishing a scheduling process TSOs shall take into account and complement where necessary the operational conditions of the generation and load data methodology developed in accordance with Article 16 of Regulation (EU) 2015/1222. 21. Where a bidding zone covers only one control area, the geographical scope of the scheduling area is equal to the bidding zone. Where a control area covers several bidding zones, the geographical scope of the scheduling area is equal to the bidding zone. Where a bidding zone covers several control areas, TSOs within that bidding zone may jointly decide to operate a common scheduling process, otherwise, each control area within that bidding zone is considered a separate scheduling area. 3. For<u>2. The owner of</u> each power generating facility, electricity storage module and demand facility subject to requirements for scheduling set out in the national terms and conditions, the concerned owner at each connection point shall appoint or act as a <u>balance responsible party, without prejudice to derogations pursuant to Article 5 of Regulation (EU) 2019/943.</u> 43. Each market participant and shipping agent, subject to requirements for scheduling set out in the national terms and conditions, each	The replacement of “<i>scheduling agent</i>” by “<i>balance responsible party</i>” (BRP) could create misalignment with national scheduling processes in some Member States since third parties, currently acting as “scheduling agents” but not as BRPs, will no longer be allowed to submit schedules to TSOs. As a result, existing scheduling practices might become non-compliant. The reason why the scheduling agent is not necessary the BRP is that the level of detail of schedules used for assessing the network status, notably those used in IGMs and as such CGMs is more detailed (distribution of generation to exact locations in the grid) than what is needed to assess the balance of the portfolio of the BRP (consolidated at the level of the control area). As such the BRP does not always know the exact impact on the individual schedules of generation due to their activities in the balancing market if this service is offered by another entity (BSP) and the correction of their portfolio is notified to them aggregated at the level of the control area. TSOs are still evaluating how the legal text should be amended to take into account TSOs’ concerns related to “Scheduling Agents”
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conditions, each nominated electricity market operator shall appoint or act as a scheduling agent <u>balance responsible party</u>, subject to requirements for providing commercial trade schedules set out in the national terms and conditions for balancing pursuant to Regulation (EU) 2017/2195. 54. Each TSO operating a scheduling area shall establish arrangements necessary to process the <u>commercial trade</u> schedules provided by scheduling agents <u>balance responsible parties</u>. 65. Where a scheduling area covers more than one control area, the TSOs responsible for the control areas shall agree about which TSO shall operate the scheduling area. <u>Article 110</u> <u>Submission of schedules to TSOs</u> 1. Each <u>balance responsible party</u>, including <u>balance responsible parties of nominated electricity market operators</u>, shall submit to the TSO operating the scheduling area, and, where applicable, to third party, subject to national terms and conditions for balancing pursuant to Regulation (EU) 2017/2195, the following schedules:	<u>nominated electricity market operator</u> shall appoint or act as a scheduling agent <u>balance responsible party</u>, subject to requirements for providing commercial trade schedules set out in the national terms and conditions for balancing pursuant to Regulation (EU) 2017/2195. 54. Each TSO operating a scheduling area shall establish arrangements necessary to process the <u>commercial trade</u> schedules provided by scheduling agents <u>balance responsible parties</u>, as well as the schedules specified in Article 46(1)(a); Article 49 (1)(a) and Article 52(2). 65. Where a scheduling area covers more than one control area, the TSOs responsible for the control areas shall agree about which TSO shall operate the scheduling area. <u>Article 110</u> <u>Submission of schedules to TSOs</u> 1. Each <u>balance responsible party</u>, including <u>balance responsible parties of nominated electricity market operators</u>, shall submit to the TSO operating the scheduling area, and, where applicable, to third party, subject to national terms and conditions for balancing pursuant to Regulation (EU) 2017/2195, the following schedules:	Article 113 is needed, to establish the requirement towards TSOs to exchange data that is needed in the current scheduling and CGM building process.
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(a) <u>internal commercial trade schedules;</u> and (b) <u>external commercial trade schedules;</u> (c) <u>generation schedules, if a TSO performs the check pursuant to Article 111(1);</u> (d) <u>consumption schedules, if a TSO performs the check pursuant to Article 111(1)</u> <u>2. Where at the entry into force of this Regulation, the task of collecting the schedules pursuant to paragraph 1 and 2 is assigned to a third party in a national legislation and pursuant to Regulation (EU) 2017/2195, the schedules referred to paragraph 1 and 2 shall be provided to such third party. In such case, the assigned third party shall provide the received schedules to the concerned TSOs.</u> Article 111 Notification of schedules within scheduling areas 1. <u>Each scheduling agent, except scheduling agents of shipping agents, shall submit to the TSO operating the scheduling area, if requested by the TSO, and, where applicable, to third party, the following schedules:</u> (a) <u>generation schedules;</u>	(a) <u>internal commercial trade schedules;</u> and (b) <u>external commercial trade schedules;</u> (c) <u>generation schedules, if a TSO performs the check pursuant to Article 111(1);</u> (d) <u>consumption schedules, if a TSO performs the check pursuant to Article 111(1)</u> <u>2. Where at the entry into force of this Regulation, the task of collecting the schedules pursuant to paragraph 1 is partially or fully and 2 is assigned to another entity than the balancing responsible party a third party in a national legislation and pursuant to Regulation (EU) 2017/2195, the schedules referred to paragraph 1 and 2 shall be partially or fully provided to such third party to the entity indicated in the national terms and conditions. In such case, the assigned third party shall provide the received schedules to the concerned TSOs.</u> Article 111 Notification of schedules within scheduling areas 1. <u>Each scheduling agent, except scheduling agents of shipping agents, shall submit to the TSO operating the scheduling area, if requested by the TSO, and, where applicable, to third party, the following schedules:</u> (a) <u>generation schedules;</u> (b) <u>consumption schedules;</u>	
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(b) consumption schedules; (c) internal commercial trade schedules; and (d) external commercial trade schedules. 2. Each scheduling agent of a shipping agent or, where applicable, a central counterparty shall submit to the TSO operating a scheduling area covered by market coupling, if requested by the concerned TSO, and where applicable to third party, the following schedules: (a) external commercial trade schedules as: (i) multilateral exchanges between the scheduling area and a group of other scheduling areas; (ii) bilateral exchanges between the scheduling area and another scheduling area; (b) internal commercial trade schedules between the shipping agent and central counter parties; (c) internal commercial trade schedules between the shipping agent and other shipping agents. <i>Article 112</i> Coherence of schedules 1. Each TSO operating a scheduling area shall check whether the generation, <u>and</u> consumption, <u>schedules are in sum equal to the sum of</u> external commercial trade schedules	(c) internal commercial trade schedules; and (d) external commercial trade schedules. 2. Each scheduling agent of a shipping agent or, where applicable, a central counterparty shall submit to the TSO operating a scheduling area covered by market coupling, if requested by the concerned TSO, and where applicable to third party, the following schedules: (a) external commercial trade schedules as: (i) multilateral exchanges between the scheduling area and a group of other scheduling areas; (ii) bilateral exchanges between the scheduling area and another scheduling area; (b) internal commercial trade schedules between the shipping agent and central counter parties; (c) internal commercial trade schedules between the shipping agent and other shipping agents. <i>Article 112</i> Coherence of schedules 1. Each TSO operating a scheduling area shall check whether the generation, <u>and</u> consumption, <u>schedules are in sum equal to the sum of</u> external commercial trade schedules and	
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and external TSO schedules infor its scheduling area are in sum balanced <u>if this TSO applies the requirement in national terms and conditions for balancing.</u> 2. For external TSO schedules, each TSO shall agree on the values of the schedule with the respective TSO. In the absence of an agreement, the lower value shall apply. 3. For bilateral exchanges between two scheduling areas, each TSO shall agree on the external commercial trade schedules with the respective TSO. In the absence of an agreement about the values of the commercial trade schedules, the lower value shall apply. 4. All TSOs operating scheduling areas shall verify that all aggregated netted external schedules between all scheduling areas within the synchronous area are balanced. If a mismatch occurs and the TSOs do not agree on the values of the aggregated netted external schedules, the lower values shall apply. 5. Each scheduling agent of a shipping agent or, where applicable, a central counterparty shall provide TSOs, upon their request, with the values of external commercial trade schedules of each scheduling area involved in market coupling in the form of aggregated netted external schedules. 6. Each scheduled exchange calculator shall provide to TSOs, upon their request, with the values of scheduled exchanges related to	external TSO schedules infor its scheduling area are in sum balanced <u>if this TSO applies the requirement in national terms and conditions for balancing.</u> 2. For external TSO schedules, each TSO shall agree on the values of the schedule with the respective TSO. In the absence of an agreement, the lower value shall apply. 3. For bilateral exchanges between two scheduling areas, each TSO shall agree on the external commercial trade schedules with the respective TSO. In the absence of an agreement about the values of the commercial trade schedules, the lower value shall apply. 4. All TSOs operating scheduling areas shall verify that all aggregated netted external schedules between all scheduling areas within the synchronous area are balanced. If a mismatch occurs and the TSOs do not agree on the values of the aggregated netted external schedules, the lower values shall apply. 5. Each scheduling agent of a shipping agent or, where applicable, a central counterparty shall provide TSOs, upon their request, with the values of external commercial trade schedules of each scheduling area involved in market coupling in the form of aggregated netted external schedules. 6. Each scheduled exchange calculator shall provide to TSOs, upon their request, with the values of scheduled exchanges related to the scheduling areas involved in the market coupling	
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	the scheduling areas involved in the market coupling in the form of aggregated netted external schedules, including bilateral exchanges between two scheduling areas. <i>Article 113</i> Provision of information to other TSOs 1. At the request of another TSO, the requested TSO shall calculate and provide: (a) aggregated netted external schedules; and (b) netted area AC position, where the scheduling area is interconnected to other scheduling areas via AC transmission links. 2. When required for the creation of common grid models, in accordance with Article 70(1), each TSO operating a scheduling area shall provide any requesting TSO with: (a) generation schedules; and (b) consumption schedules	in the form of aggregated netted external schedules, including bilateral exchanges between two scheduling areas. <i>Article 113</i> Provision of information to other TSOs 1. At the request of another TSO, the requested TSO shall calculate and provide: (a) aggregated netted external schedules; and (b) netted area AC position, where the scheduling area is interconnected to other scheduling areas via AC transmission links. 2. When required for the creation of common grid models, in accordance with Article 70(1), each TSO operating a scheduling area shall provide any requesting TSO with: (a) generation schedules; and (b) consumption schedules	
XX	A new article.	All relevant data which is required for the building of individual and common grid models and is described in the methodologies developed pursuant to Articles 64 ss. and 70 of this Regulation, shall be provided by the respective competent actors in accordance with Article 2 of this Regulation, including TSOs, DSOs, CDSOs and SGUs, who own such data. This obligation applies irrespective of the connection level and	Given that Art. 16 regarding the GLDPM has been removed in the CACM 2.0 proposal, all the data delivery provisions required for IGM and CGM building must now be moved to the SO Regulation. While CGMM describes the data required, it does not ensure the obligations for third parties to provide the data. In light of this, TSOs propose the introduction of a new Article that aims to ensure that there will not be any missing data required by TSOs for the building

		shall ensure the completeness and accuracy of the system state representation.	process, since failure to have the complete data for the building process would negatively impact the quality of the CGM, therefore compromising the outcome of all the operational processes using CGM as inputs. The article should be added in Title 2 Data exchange, in the general provisions for data exchange. Finally, CGMM v.3 (CGMM for SO Regulation) also needs to be amended as soon as possible so that it is merged with CGMM v.1 (which is implicitly repealed because of CACM 2.0), while ensuring that all the data requirements stipulated in the GLPDM are included.