

ENTSO-E Draft Network Code for Operational Planning & Scheduling

A EURELECTRIC comments paper

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EURELECTRIC Comments to ENTSO-E Draft Network Code Operational Planning & Scheduling

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General comments

Harmonisation of TSO rules and TSO coordination should be strengthened

The fundamental purpose of the Network Codes (NC) outlined in the Third Energy Package is to introduce common European rules for cross-border issues necessary for a coordinated operation of the EU power system.

The draft Operational Planning and Scheduling NC does not sufficiently reflect the spirit of the Third Energy Package and does not provide strong guidance on how to move towards harmonisation of the various national TSO practices in this area. More specifically, it does not sufficiently require inter-TSO cooperation and harmonisation of methodologies for security analysis in operational planning and outage planning. Moreover, the code does not include any coordinated/harmonised methodology/tools or thresholds for scheduling and makes no attempt to align and coordinate scheduling platforms (Chapter 7).

Harmonisation of rules is a key prerequisite for accomplishing the internal energy market and ensuring security of supply in the European electricity system increasingly dominated by renewables. In this context, the reference made in many provisions to decisions by “each TSO” should be replaced with the reference to “common TSO” or at least to “coordinated TSO” decisions. Furthermore, such common rules should be formulated as obligations for TSOs, not as advice.

Proper regulatory oversight should be introduced

The code leaves too much room for unilateral TSO decisions without involvement of other relevant stakeholders. It also allows for long implementation times for TSOs, which do not always appear coherent. The code should foresee the involvement of grid users / market participants and approval by NRAs in cases where “each TSO” decides. The role of ACER, which is very limited in the current draft, should be strengthened significantly. ACER should play a key role in the harmonisation process and should be consulted whenever NRAs do not agree or intend to implement different rules.

Consistency between the NC OP&S and other network codes should be ensured

The draft code is inconsistent with other network codes (RfG, CACM, DCC, OS) on a number of issues, including data exchanges. There is also a need to simplify and introduce coherence as regards existing definitions of different areas (market balance area, outage area, control area, responsibility area). Terms like ‘adequacy’, ‘planned/unplanned/forced outages’, ‘contingencies/constraints’, ‘grid element’ and ‘relevant’ power generation modules/demand facilities, ‘Significant Grid Users’ and ‘Scheduling Agent’ should be clearly defined. Other definitions, like Common Grid Model or Remedial Actions should be included in the code and be made consistent with the NC CACM Requirements. Definitions must be made coherent with requirements in other codes.

In addition, there seems to be a discrepancy between a shorter term vision in this code and a long term one in the RfG and DCC codes as regards dealing with increased penetration of RES and development of ‘Smart’ solutions.

Information requirements on generators regarding outage planning should be consistent with current regulation. Data should be submitted only once

The process of submitting technical data to be provided by the concerned “Outage Planning Agent” should be in line with REMIT regulation, for example with regard to criteria of confidentiality of the information.

Generators already provide TSOs with a lot of operational data for the purpose of developing a common grid model and adequacy forecasts. Therefore provisions in this Network Code should not result in duplicating requirements for technical data already included in other Network Codes. Information should be submitted only once and should be clearly defined in the relevant NCs. Methodologies of information exchange must be as user-friendly as possible.

The NC on Operational Planning & Scheduling should include clear rules about sources of the needed information. If all of these information requirements are stipulated in the NC Operational Security, there should be a clear reference to the relevant provisions in this code without duplication. Provisions for information exchange should respect technical capabilities as defined in the NC Requirements for Generators.

Finally, information about commercial schedules, when calculated by power exchanges, should be sent directly to TSOs without requiring any intervention by market operators.

No additional constraints on the outage planning process should be proposed

EURELECTRIC regards as legitimate the TSOs' need to exchange information about planned outage schedules one year ahead of real time in order to perform a common capacity calculation process. At this stage, agents have to provide information that is as accurate as possible. However, the process should not lead to a validated and binding planning: outage planning agents (generators, demand facilities) should have the right to optimise their units and maintenance plans until up to 3 months before real time.

The Network Code should not introduce any additional constraints on outage plans: relevant Outage Planning Agents should submit an indicative availability schedule. The current code's requirement to submit a definite year-ahead outage planning would imply for the Outage Planning Agent renouncing to freely adapt it to the changing environment throughout the corresponding period (Article 23.2).

The Network Code should not contain provisions stipulating that changes of the yearly outage planning should be subject to TSO decision, as currently foreseen in Article 24. This implies that TSOs would be given the right to refuse the proposed changes. In case of outage incompatibility, TSOs should adapt the outage planning for grid elements in their grids when possible. Where this proves impossible, TSOs should try to find the most cost-efficient alternative, by incentivising generators and other outage planning agents to reschedule the outage plans. TSOs should only freeze their maintenance schedule close to real time, in relation to strong maintenance planning constraints.

DSOs should be properly considered in operational planning & scheduling as regards distribution network users and grid elements

The ACER Framework Guidelines state clearly that collaboration between TSOs and DSOs is necessary when security of supply and completion of the Internal Energy Market are affected. Absence of such collaboration would have an adverse effect on other important objectives: efficiency, end costumers' satisfaction and RES integration. However, this need for collaboration between DSOs and TSOs is not adequately reflected in the network code – although the code affects elements of DSO grids as well as generation and demand facilities connected to distribution grids. Also the role of new parties, such as aggregators is not reflected in the code (e.g. Art 13). The Framework Guidelines require that the network code describes 'principles for exchange of all necessary information between system operators to handle the different planning and scheduling activities in a coordinated and cooperative manner' (p. 21).

TSO-connected DSOs need outage management information from the TSO, relevant neighbouring DSOs and significant users, including e.g. aggregators to maintain the security of the system they operate and support the overall system security. If DSOs are not properly involved in determining elements of their grids and users connected to their grids for outage planning and their outage coordination process (provisions of Art. 21, 22 and 25), DSO actions on their networks could inadvertently endanger cross-border exchanges. TSOs should not order or act directly on parts of distribution network or any generation or demand facility embedded in distribution networks for outage management purposes. Instead, such necessary actions should always be taken via the affected DSO.

In addition, affected DSOs should have the possibility to access the model of the TSO grid that influences the distribution network in order to perform their own security analysis (if needed). The information of that DSO influence grid should include the transmission grid elements or users outage planning. In addition, schedules from distribution network users should be communicated by the “Scheduling Agent” to the DSO so that the DSO can detect potential restrictions in advance. Distribution network users should not send information to TSOs without the awareness of the DSO, as this could endanger DSO operations. If the TSO requires some information from a DSO-connected user, the information exchange should be facilitated through the correspondent DSO.

Last but not least, in order to maximise RES integration and to avoid affecting overall system security (i.e. to maintain active/reactive power ration at T/D connection point), Significant DSOs should be able to monitor ancillary services. The central role of DSOs as facilitators must be taken into account, e.g. for data and information exchange and delivered quality of service to DSOconnected customers. The code is also not fully coherent with the RfG and DCC codes with respect to ancillary services.

A compensation principle should be introduced

In case TSOs wish to adjust the outage plans of the outage planning agents, they should provide adequate compensation for resulting costs and profits lost. A clear general principle of compensation has to be introduced (Article 23.7, Article 23.11). Further clarification is needed on how TSOs will take decisions about changes in planning, given that these changes will incur additional costs and lost profits. In this context, it is important to ensure that TSOs operate in a non-discriminatory and neutral manner. It is also important to clarify if TSOs will also consider possible solutions available from across the border. In this context, ENTSO-E should provide more clarity on what they mean when using the term “minimizing the impact on the market”, as it can be different for different market players (Article 23.8.a).

Cost assessments should consider all Network System Operators affected

The costs related to the obligations referred to in this (and other) Network Code(s) which have to be borne by regulated Network System Operators shall be assessed by National Regulatory Authorities (NRAs). The code also includes “hidden” obligations for DSOs. In particular, Art. 9, Art. 17 and Art. 30 foresee scenarios, forecasts, and analysis for Power Generating Facilities and Demand Facilities connected to Distribution Network performed by TSOs without mentioning DSOs’ role/obligations. NRAs should recognise efficient DSO costs resulting from necessary adaptations of the existing grid (i.e. new installations) as well as related administrative cost.

Involvement of market stakeholders should be ensured and justification of proposed measures should be provided

Market involvement in the process of defining the rules is limited and definition of these rules with high relevance for market operation and functioning of the Internal Energy Market is mostly left exclusively to TSOs on the basis of their grid models. This does not leave any room for finding a balance between the interests of all market participants – generators, DSOs, significant grid users – who will have to comply with these rules. Grid users/ market participants and DSOs have to be properly engaged in the process of defining the methodologies, both at national and at regional/European level. For decisions on national level, Art 3.3 has to be adapted accordingly.

Market stakeholders and DSOs should be actively consulted on the criteria of establishing a list of Relevant Power Generating Modules, Relevant Demand Facilities, and Relevant Non-TSO Owned Interconnectors (Article 21.1). The draft Network Code includes many measures without clear justification.

Outage planning timetable

The introduction of the Regional Coordination Procedure is an important improvement towards the creation of the Internal Electricity Market. At the same time, the introduction of an additional step in the definition of planned outages should not deteriorate the effectiveness of outage decisions especially in the short-run (W-1 and D-1).

Appendix

				GENERAL REMARKS					
	Title	Article	Paragraph	Initial Version	Proposed version	Justification text	Type of comment	Nature of comment	Level of detail of comments
	Purpose & Objectives	-	8	Transmission System Operators should respect these common requirements on	Transmission System Operators shall respect these common requirements on	The provision is an obligation for the TSO, not an advice	legal	fundamental	general remark
	Purpose & Objectives	-	9, 15		Also for Purpose and Objectives items (9) to (15)	The provision is an obligation for the TSO, not an advice	legal	fundamental	general remark
	1	1		New sub-article	TSOs and DSOs shall always respect relevant provisions for human, goods and nuclear safety	Human, goods and nuclear safety are paramount and must be explicitly referred to in all Network Codes on System Operation. Goods should be added to the article recently introduced in NC Operational Security on this precise subject.	technical	fundamental	general remark
	1	1	2b	Determining conditions to plan outages allowing works required by Power Generating Facility Operators, Distribution System Operators, Demand Facilities of significance for the interconnected transmission system and Transmission System Operators.	Determining a process to allow for TSOs to plan their outages in a coordinated way, taking account of up-to-date information provided by DSOs, by Power Generating Facility operators and demand facilities of significance, such that threats to operational security are minimised and resolved.	The NC should not aim at central planning of outages	technical	fundamental	general remark
DSO comment	1	1	3	In the micro isolated systems and small isolated systems and in the isolated systems	Need for clarification	What are small isolated systems? A correct definition would be appreciated	technical	fundamental	general remark
DSO comment	1	2	1	For the purpose of this Network Code, the definitions contained in Article 2 of Directive 2009/72/EC and in Article 2 of Regulation (EC) N°714/2009 apply. The definitions contained in the Article 2 of the [NC RfG], [NC CACM], [NC DCC], [NC OS] shall also apply.	For the purpose of this Network Code, the definitions contained in Article 2 of Directive 2009/72/EC and in Article 2 of Regulation (EC) N°714/2009 apply.	Non approved NC shouldn't be mentioned in this NC. Otherwise definitions could change after the code has been approved.	legal	fundamental	general remark

	1	2	2	Adequacy means ability of generation connected to an area to meet the load of this area	Need for clarification	To be specified also the time dimension (year ahead / day ahead) and the area dimension (synchronous area / control area). Does the article consider forecast or actual load?	technical	fundamental	general remark
	1	2	2	Availability means state of a Power Generating Module, Transmission Line, Ancillary Service, Demand Facility, non TSO owned Interconnector or another facility is capable of providing service, whether or not it actually is in service	Availability means state of a Power Generating Module, ... Demand Facility, non TSO owned Interconnector or Grid Element is capable of providing service, whether or not it actually is in service.	See references in articles 26(3) and 26(2): ready to produce, consume or transport electricity, instead of "provide service". We do not understand the inclusion of Ancillary Services. See section 5.2.2 of the supporting document: "Important to stress is the fact that outage planning only refers to: ... b) The Availability and non-Availability of assets. This means only the capability of producing, consuming and transporting energy is planned in this process. If and how much the asset produces, consumes or grids are not directly impacted by these rules (except for assets being unavailable) and is governed by market or other rules (whichever is applicable)." The wording "actually in service" is not clear	technical	fundamental	Detailed remark

	1	2	2	Close to Real-Time means time interval before real-time in an order of magnitude of 15 minutes;	Close to Real-Time means time interval before real-time in minimum order of magnitude of 15 minutes		technical	fundamental	Detailed remark
	1	2	2	Commissioning means the process of assuring that all systems and components of a Power Generating Module, Demand Facility or non TSO owned Interconnector are designed, installed, tested, according to the operational requirements of the owner or final client;	Commissioning means the process of assuring that all systems and components of a Grid Element , Power Generating Module, Demand Facility or non TSO owned Interconnector are designed, installed, tested, according to the operational requirements of the owner or final client; During the Commissioning process, the alternator of the Power Generating Module is connected to the network and can impact the network.	Definition and references across the OPS NC must be aligned with the purpose of the NC: to take into account the entrance of new facilities in the system by planning the test period required. See references in articles 23(3), 23(4), 24(4), 24(5), 26(6), 39(2)(b)&(c). Moreover, grid elements are missing in the definition. The OPS NC must take into account the requirement stated in the FG of System Operation. Please see section 9.1 of the supporting document: FG11: "Coordination of commissioning and entering into operation of active and reactive power control network elements with significant cross-border impact. In particular, reactive	technical	fundamental	Detailed remark

						power control elements installed at each end of cross-border lines shall be coordinated;” The original definition applies also to commissioning activities without any impact on the network			
	1	2	2	New definition	Common Grid Model means European-wide or multiple-System Operator-wide data set, created by the EuropeanMerging Function, through the merging of relevant data	The definition of Common Grid Model is missing. The same definition as in NC CACM should be used:	technical	fundamental	Detailed remark
	1	2	2	Constraint means a situation, either described in a Common Grid Model, or occurring in real time, where Operational Security Limits are not respected	Need for clarification	Such situation is called in other NC Contingency (See OS NC). Coherence with other codes is needed. See also Art. 14.2 and 32.3	technical	fundamental	Detailed remark
	1	2	2	Forced outage ... means the unplanned removal from service Availability of a Power Generating Module, Transmission Line, or other facility for emergency reasons	Forced outage ... means the unplanned removal from service Availability of a Power Generating Module, Transmission Line, or other facility due to event independant of facility operator's will and out of the scope of their forecast capabilities, whether it be emergency reason, technical matter, security or safety issue.	Not only emergency reasons could lead to unplanned and unpredictable outages, technical issues must be taken into account in this notion. Unplanned outages, when independant to the agent will, should be considered as forced ones. As an illustration, an outage could for instance be the	technical	fundamental	Detailed remark

						consequence of an independant authority decision.			
	1	2	2	Grid Element means element of the Transmission System;	Need for clarification	The definition should be clarified regarding level of detail			
	1	2	2	Intraday	delete the definition	refer to CACM definitions for intraday open and gate closures			
DSO comment	1	2	2	Market Balance Area means the Responsibility Area except if there are several Bidding Zones within this Responsibility Area. In the latter case the Market Balanced Area equals Bidding Zone	Market Balance Area means the Control Area except if there are several Bidding Zones within this Control Area . In the latter case the Market Balanced Area equals Bidding Zone	Responsibility area and Control area definitions in OS NC where agreed to be changed.	technical	fundamental	Detailed remark
	1	2	2	Netted Area AC Position means the netted aggregation of all AC-External Schedules of an area;	Need for clarification	Use this definition for setpoint in LFC&R.	technical	fundamental	Detailed remark
	1	2	2	New definition	Non-TSO Owned Interconnectors	This definition should be added in the code	technical	fundamental	Detailed remark
	1	2	2	New definition	Outage definition should be added.	Term 'outage' is used throughout the code but not defined. The definition should refer to unavailability, a term that covers the consequences of the potentially extreme diversity of reasons that may occur	technical	fundamental	Detailed remark
	1	2	2	Outage Incompatibility means the state in which a combination of one or more Relevant Grid Element, Relevant Power Generating Modules, Relevant Demand Facility and/or non TSO owned Interconnector outages and the best estimate of the forecasted electricity grid situation leads to the impossibility to maintain Operational Security without Load Shedding;	Outage Incompatibility means the state in which a combination of one or more Relevant Grid Element, Relevant Power Generating Modules, Relevant Demand Facility and/or non TSO owned Interconnector outages and the best estimate of the forecasted electricity grid situation leads to the impossibility to maintain Operational Security without Load Shedding but with reducing the consumption of pre-contracted load;	Some consumers have contracts with TSO to reduce the load in case of adequacy problems. E.g. pumping phase of hydro storage plants. Also it is impossible to say what is "impossible" in an ex-ante evaluation.	technical	fundamental	Detailed remark

	1	2	2	Regional Security Coordination Initiative (RSCI) means regional unified scheme set up by TSOs in order to coordinate Operational Security analysis on a determined geographic area;	RSCI definition and references made across the OPS NC could be merged/adapted/aligned with the references made to "regional coordination initiatives or centres" across the OS NC.	These regional initiatives could have different tasks/arrangements depending on the NC, but they should converge to the same entities.	technical	fundamental	Detailed remark
	1	2	2	Remedial action	Definition is missing, need for adjustment/differentiation with definition in OS NC	"Remedial action" is used in provisions but there is no definition. In OS NC the usage of "Remedial action" is different	technical	fundamental	Detailed remark
	1	2	2	Restitution Time means the time required to restore service in a Grid Element which is currently under planned outage;	Need for clarification	Why is this definition not applicable for forced outages?	technical	fundamental	Detailed remark
	1	2	2	Relevant Demand Facility means a Demand Facility which participates to the coordinated outage planning process as its availability status influences cross-border Operational Security;	Need for clarification	How is the status of influence on cross-border Operational Security decided - criteria? The process for determining these criteria should be in the NC.	technical	fundamental	Detailed remark
	1	2	2	Relevant Grid Element means a Grid Element which participates to the coordinated outage planning process as its availability status influences cross-border Operational Security;	Need for clarification	How is the status of influence on cross-border Operational Security decided - criteria?	technical	fundamental	Detailed remark
	1	3	1	The requirements established in this Network Code and their applications are based on the principle of non-discrimination and transparency as well as the principle of optimisation between the highest overall efficiency and lowest total cost for all involved parties.	delete	TSOs are not in a position to assess "highest overall efficiency and lowest total cost to all involved parties". It is not part of TSO's tasks to perform such as role.	technical	fundamental	general remark

	1	3	2	Notwithstanding the above, the application of non-discrimination principle and the principle of optimization between the highest overall efficiency and lowest total costs while maintaining Operational Security as the highest priority for all involved parties, shall be balanced with the aim of achieving the maximum transparency in issues of interest for the market and the assignment to the real originator of the costs.	delete	It is not clear what "assignment to the real originator of the costs" means and, in any case, it's often an unhelpful concept with respect to the internal market	technical	fundamental	general remark
DSO comment	1	3	3	Where reference is made to this paragraph, the TSO shall, after consultation with its national regulatory authority, establish the terms and conditions or actions necessary to ensure Operational Security in accordance with the principles of transparency, proportionality and non-discrimination. The establishment of these terms and conditions or actions necessary to ensure Operational Security shall be performed in compliance with and respecting the TSO's responsibility to ensure system security according to national legislation.	Where reference is made to this paragraph, the TSO and affected DSO(s) shall, after consultation with its national regulatory authority, establish the terms and conditions or actions necessary to ensure Operational Security in accordance with the principles of transparency, proportionality and non-discrimination. The establishment of these terms and conditions or actions necessary to ensure Operational Security shall be performed in compliance with and respecting the TSO's responsibility to ensure system security according to national legislation.	As DSOs and connected users are involved in the processes defined in this NC, they should be mentioned in this paragraph. It is necessary to limit risks related to handling of their facilities by 3rd parties and to ensure consistency with the FG and Objectives (5) of this NC.	legal	fundamental	general remark
	1	3	3	Where reference is made to this paragraph, the TSO shall, after consultation with its national regulatory authority, establish the terms and conditions or actions necessary to ensure Operational Security in accordance with the principles of transparency, proportionality and non-discrimination. The establishment of these terms and conditions or actions necessary to ensure Operational Security shall be performed in compliance with and respecting the TSO's responsibility to ensure system security according to national legislation.	Where reference is made to this paragraph, the TSO shall, after consultation with the stakeholders and approval of its national regulatory authority, establish the terms and conditions or actions necessary to ensure Operational Security in accordance with the principles of transparency, proportionality and non-discrimination. The establishment of these terms and conditions or actions necessary to ensure Operational Security shall be performed in compliance with and respecting the TSO's responsibility to ensure system security according to national legislation. Methodologies for European-wide harmonisation of TSO cooperation should be established in this code. Adaption to national specifics should only be made where necessary. As proposed in other NCs currently under preparation grid users have to be involved in such decision making.	1) Stakeholder consultation is necessary to ensure market views are taken into account. NRA approval should be based on the outcome of the stakeholder consultation. 2) This is a EU network code aiming at harmonisation of current procedures and creating a level playing field. Any national terms, conditions and actions to be approved by national regulators should not contradict the NC principles	legal	fundamental	general remark

	1	3		New sub-article		For nuclear power plants, nuclear safety has priority in the case of the conflict between applicable nuclear safety regulations and this Network Code.	Nuclear safety is paramount and may undergo specific constraints. It must be explicitly referred to in all Network Codes on System Operation, as it had been added in NC Operational Security.	technical	fundamental	general remark
DSO comment	1	4	1	The costs related to the obligations referred to in this Network Code which have to be borne by regulated Transmission System Operators shall be assessed by National Regulatory Authorities.		The costs related to the obligations referred to in this Network Code which have to be borne by regulated network operators and all network users required to contribute to operational security , shall be assessed by National Regulatory Authorities.	All Network Operators should be considered in the cost assessment, otherwise DSOs would be discriminated. Implementing the code will have a cost, both for the TSOs and the DSOs. DSOs should be thus explicitly included in this article. Fulfilling needs of the safe system operation will incur additional costs to be covered. This would also avoid unilateral optimisation only to the benefit of the TSO.	legal	fundamental	general remark

DSO comment	1	4	3	If requested to do so by National Regulatory Authorities, Transmission System Operators shall, within three months of such a request, use best endeavours to provide such additional information as reasonably requested by National Regulatory Authorities to facilitate the assessment of the costs incurred.	If requested to do so by National Regulatory Authorities, Network Operators shall, within three months of such a request, use best endeavours to provide such additional information as reasonably requested by National Regulatory Authorities to facilitate the assessment of the costs incurred.	All Network Operators should be considered in the cost assessment, otherwise DSOs would be discriminated. This article has been agreed in previous network codes (RfG & DCC) and should be respected also here.	legal	fundamental	general remark
DSO comment	1	5	2	Without prejudice to the obligation to preserve the confidentiality of commercially sensitive information obtained in the course of carrying out its activities, each TSO shall provide to the operator of any other transmission system with which its system is interconnected, sufficient information to ensure the secure and efficient operation, coordinated development and interoperability of the interconnected system.	Without prejudice to the obligation to preserve the confidentiality of commercially sensitive information obtained in the course of carrying out its activities, each TSO shall provide to the operator of any other transmission system or relevant distribution system with which its system is interconnected, sufficient information to ensure the secure and efficient operation, coordinated development and interoperability of the interconnected system.	The Relevant DSO should also have right receive sufficient information to ensure the secure and efficient operation of the system	legal	fundamental	general remark
DSO comment	1	5	new		Notwithstanding the above, disclosure of such information and data may occur in case a Relevant Network Operator or a Relevant DSO is compelled under EU or national law to disclose it, under the conditions set forth in the relevant legislation. Such disclosure shall be reported to the owner of such information and data.	Add this disposal, included in all NC, to Confidentiality Obligations	legal	fundamental	general remark
DSO comment	1	5	new		In case of disclosure for other purposes than those described in above mentioned paragraphs, a Relevant Network Operator or a Relevant DSO shall seek the consent of the owner of such information and data. This consent cannot be unreasonably withheld.	Add this disposal, included in all NC, to Confidentiality Obligations	legal	fundamental	general remark
DSO comment	1	6	1	Transmission System Operators and entities designated in accordance with Article 18(7), Article 21(7) and Article 33(1) shall be entitled to delegate all or part of any role assigned to them under this Network Code to one or more competent third parties. The delegating entity shall remain responsible for ensuring compliance with the obligations under this Network Code.	Need for clarification	It seems strange for a TSO to be able to delegate its responsibility in Operational Planning and Scheduling. Please clarify the aim of this article. Is this meant for CORESO or analogue common TSO units?	legal	fundamental	specific comment

	1	6	4	New sub-article	Whether or not a role has been delegated, all TSOs shall, in order to facilitate the well functioning of the market, put in place processes such that information is delivered to Outage Planning Agents in a timely manner, in particular any time there is uncertainty about the planning.	Uncertainty about the planning is a constraint for Outage Planning Agents. For the well functioning of the market, the according uncertainty period should be strictly limited to the time needed by the TSOs for the instruction of the situation.	technical	fundamental	general remark
	2	7	1 to 3	ENTSO-E shall publish the latest version of the common list of scenarios together with their general description on the ENTSO-E website.	Need for clarification: Which type of data and where does this data come from? Do generators, DSOs etc. have to deliver those? On which legal basis? Also if information is coming from obligation in other codes (e.g. NC OS). When these scenarios will be published? Are informations used which have to be delivered following the provisions in OS NC?	A list of scenarios without any description of the content of the scenario would otherwise be meaningless.	technical	fundamental	specific comment
	2	8	1 to 2		Link with the draft NC CACM has to be established.	TSOs should establish a common grid model and not individual ones that are simply merged .Why do the articles on one and the same topic differ in the two NC, OPS and CACM? There is no reason why TSOs use different grid models for capacity calculation (NC CACM) and for load flow forecast (OPS).	technical	fundamental	general remark
	2	8	1 to 2	CONSTRUCTION OF YEAR-AHEAD INDIVIDUAL GRID MODELS	An alternative is the updating of the Common Grid Model		technical	fundamental	general remark
	2	8	2	When developing its Individual Grid Models, each TSO shall: a) agree with the directly connected TSOs the net exchanges on AC;	When developing its Individual Grid Models, each TSO shall: a) agree with the directly connected TSOs on capacity of the interconnectors ;	The net exchanges are a consequence of the Grid Model, not an input. It has to be clarified where does this information come from? For example, from	technical	fundamental	specific comment

						scenarios developed following Chapter 5? The interaction between all parts of the methodology is necessary and needs to be described in the OPS NC.			
DSO comment	2	9	1	Each TSO shall integrate in the scenarios the power generated and consumed by the Power Generating Facilities and Demand Facilities connected to Distribution Networks within their Responsibility Areas.	Each TSO shall in line with article 3.3 define in relation with DSOs if applicable, the methodology used to assess the aggregated power outputs of the Dispersed Power Generating and Demand Facilities connected to DSOs within its Control Area in the Individual Grid Model.	It is necessary goes back to the previous redaction that was already agreed with DSO TEG: when TSO needs any kind of information of users of the Distribution Network it should be gathered by DSO, otherwise communication efforts could be duplicated for network users (against the principle of efficiency) or DSO could be out of the information loop, posing a risk for the network. Both options are against Framework Guidelines.	technical	fundamental	general remark
	2	10		CONSTRUCTION OF YEAR-AHEAD COMMON GRID MODELS	Link with the draft NC CACM has to be established. TSOs establish a common grid model and not individual ones that are simply merged	TSOs should establish <u>a common grid model</u> and not individual ones that are simply merged .Why do the articles on one and the same topic differ in the two NC, OPS and CACM? There is no reason why TSOs use different grid models for capacity calculation (NC CACM) and for load flow forecast (OPS). Coherence with data exchanges according to other	technical	fundamental	general remark

						codes such as CACM and FWD is mandatory.			
	2	10	1	All TSOs shall decide, no later than 6 months after the entry into force of this Network Code, on the provisions	All TSOs shall decide, no later than 6 months after the entry into force of this Network Code and with approval of ACER , on the provisions	1) Why do TSOs have 6 months more to decide on the provisions dealing with gathering, merging and saving of the year-ahead Individual Grid Models? Why are they not included in this NC? 2) ACER approval is mandatory	legal	fundamental	general remark
DSO comment	2	10	2	Each TSO shall deliver to the affected TSOs on their request further detailed information on the topology modifications or operational arrangements issued as a consequence of an outage, in such a way that an accurate representation of the system is provided for performing complete Operational Security analysis.	Each TSO shall deliver to the affected TSOs and DSOs on their request further detailed information on the topology modifications or operational arrangements issued as a consequence of an outage, in such a way that an accurate representation of the system is provided for performing complete Operational Security analysis.	DSOs are System Operator and also need this kind of information in order to support the overall system security.	technical	fundamental	general remark
	2	11	1		Link with the draft NC CACM has to be established. TSOs establish a common grid model and not individual ones that are simply merged	TSOs should establish a common grid model and not individual ones that are simply merged .Why do the articles on one and the same topic differ in the two NC, OPS and CACM? There is no reason why TSOs use different grid models for capacity calculation (NC CACM) and for load flow forecast (OPS).	technical	fundamental	general remark

	2	10 to 13			Capacity calculation process should be established for the yearly, monthly (and possible quarterly) cross-border capacity allocation.	Article 13 tackles the building of the day-ahead and intraday grid model. Under (1) c) is written that deadlines should be set compatible with capacity calculation. Articles 10 and 11 should be made consistent with Article 13.	technical	fundamental	general remark
DSO comment	2	12	2	Each TSO shall provide information to the TSOs in its Outage Planning Region in order to allow these TSOs to update their Individual Grid Model in accordance with the scenarios defined in this article.	Each TSO shall provide information to the TSOs and DSOs in its Outage Planning Region in order to allow these TSOs to update their Individual Grid Model in accordance with the scenarios defined in this article.	DSOs are System Operator and also need this kind of information.	technical	fundamental	general remark
DSO comment	2	12	3		Add new sub-article: If information is needed from distribution network connected generation or demand, they will be provided via the DSO.	If any information is needed from DSO connected users, this will be provided by the DSO in order to look for the efficiency of the communication channels and to avoid DSO not to have the relevant information of the network it operates.	technical	fundamental	general remark
	2	13	1	All TSOs shall decide, no later than 6 months after the entry into force of this Network Code, on the provisions...	All TSOs shall decide, no later than ???? months after the entry into force of this Network Code and after approval of ACER , on the provisions. .	1) Why do TSOs have 6 months more to decide on the provisions dealing with gathering and merging of the day-ahead and Intraday Individual Grid Models? Why are not included in this NC? 2) ACER approval shall be mandatory, not unilateral TSO decision. Is the implementation time correct? Also applicable on Art. 15.2 3) Due to the large overlap with NC CACM, consistency between these codes is crucial	legal	fundamental	Detailed remark

DSO comment	2	13	2.b	updated information on demand and renewable generation in accordance with national legal framework;	updated information on demand and renewable generation in accordance with national legal framework; when considering generation and demand connected to distribution networks, if needed, the information will be provided by the DSO.	If any information is needed from DSO connected users, this would be provided through DSO in order to look for the efficiency of the communication channels and the DSO to be aware of that information to preserve security of supply and quality of service.	technical	fundamental	general remark
	3	14 to 18		OPERATIONAL SECURITY ANALYSIS IN OPERATIONAL PLANNING	Need for clarification with regard to what is the relation of the Articles 14, 16 and 17 to Art.18? Time should be much shorter than 2 years?	Articles 14, 16 and 17 are relevant only until a harmonised methodology is in place. Why it takes so long to develop it knowing that TSOs coordinate already since many years in each synchronous area? Coordination within a synchronous area should be the main principle outlined in the NC			
DSO comment	3	14	2	Each TSO shall perform Operational Security analyses at the time horizons specified in Article 14.1 in N-situation by simulating each Contingency from the TSO's Contingency List in accordance with Article 11 of [NC OS] and thus checking that the Operational Security Limits defined in accordance with Article 6(5) and 6(6) of [NC OS] in the (N-1) Situation are fulfilled.	2. Each TSO shall perform Operational Security analyses at the time horizons specified in Article 14.1 in N-situation by simulating each Contingency from the TSO's Contingency List checking the Operational Security Limits in the (N-1) Situation are fulfilled.	Non approved NC shouldn't be mentioned in this NC. Otherwise the requirements could change after the code being approved.	legal	fundamental	general remark
	3	15	1 to 4		Remedial actions need to be clearly defined (type of remedial action and activation, cost compensation etc.), especially for cross-border actions.	Remedial actions are described as well in the NC CACM and the NC OS. The NC mentions in many articles that each TSO shall define/activate/initiate remedial actions. This should be in line with other NCs. Our experience so far is that many	technical	fundamental	general remark

						TSOs are reluctant to use remedial actions cross border to relieve congestion or make more capacity available. Therefore remedial actions should be clearly defined in the NC			
DSO comment	3	15	1	In accordance with Article 6(9) of [NC OS], each TSO shall prepare in coordination with the affected TSOs Cross Control Area Remedial Actions to be implemented in due time to cope with Contingencies detected in the different time horizons in which Operational Security analysis are performed. Each TSO shall assess the effectiveness of these Remedial Actions.	Each TSO shall prepare in coordination with the affected TSOs Cross Control Area Remedial Actions to be implemented in due time to cope with constraints detected in the different time horizons in which Operational Security analysis are performed. Each TSO shall assess the effectiveness of these Remedial Actions.	In addition, this provision should focus on constraints: contingency = simulated event (not detected) constraint = not respecting operational limits after contingency (detected during contingency analysis) The description of remedial action in NC OS is not fully in line with the usage of this definition here.	legal	fundamental	general remark
	3	15	2	Within 6 months after the entry into force of this Network Code, each TSO shall consult its NRA on the principles for categorisation of Remedial Actions.	Within 6 months after the entry into force of this Network Code, each TSO shall proceed according to the article 3(3) in order to acquire the approval on the principles for categorisation of Remedial Actions. Those principles are reported according to the Regulation on Transparency and provision of information in electricity market.	The TSO should consult its NRA and other stakeholders. The approval of the NRA and reporting are mandatory. Art 3(3) should be adopted accordingly (see comment above). Consistency with NC CACM is crucial.	legal	fundamental	general remark

	3	15	3	<p>When setting up these Cross Control Area Remedial Actions, TSOs shall check:</p> <p>a) that the Remedial Action does not jeopardise the Operational Security of the Transmission System in which the Remedial Action is executed;</p> <p>b) the agreement of the TSO that executes the Remedial Action;</p> <p>c) the Remedial Action is in line with the categorisation as defined in Article 15 (2);</p> <p>d) the technical-economical efficiency of the Remedial Action.</p>	<p>When setting up these Cross Control Area Remedial Actions, TSOs shall check:</p> <p>a) that the Remedial Action does not jeopardise the Operational Security of the Electric System in which the Remedial Action is executed;</p> <p>b) the agreement of the TSO that executes the Remedial Action;</p> <p>c) the Remedial Action is in line with the categorisation as defined in Article 15 (2);</p> <p>d) the technical-economical efficiency of the Remedial Action. e) Operational Security of the neighbouring Transmission System</p>	<p>a) Remedial Actions should be done in order to not jeopardise the Operational Security of all Electric System (including, generation, demand & DSOs), not only Transmission System</p> <p>e) Existing methodologies for cross-border co-operation (TPS, CORESO) should be described/ reflected in this code</p>	technical	fundamental	general remark
	3	15	4	Each TSO shall report on these Cross Control Area Remedial Actions in accordance with the [Regulation on Transparency and provision of information in electricity market].	Each TSO shall report on these Cross Control Area Remedial Actions and internal control area remedial actions with impact on cross-border-trade in accordance with the [Regulation on Transparency and provision of information in electricity market].	Remedial actions inside of the control area can impact CBT	technical	fundamental	general remark
DSO comment	3	15	5		Add new sub-article: If a Remedial Action involves a distribution network grid element or a DSO connected grid user, the DSO shall be properly engaged in the process.	Not involving DSO is by definition endanger the consecution of the Remedial Action as not being aware of it.	technical	fundamental	general remark
	3	15	6	Add new sub-article	In case of implementation of a remedial action concerned market actors have to be compensated for costs and lost income following the methodologies set in the CACM code	The need for compensation should also be mentioned here	technical	fundamental	general remark
	3	16	2	Each TSO shall perform Operational Security analysis referred to in Article 16(1) in accordance with the coordination methodology described in Article 18(2) in order to detect at least the following network Constraints: a)	TO ADD : d) dynamic stability		technical	fundamental	detailed remark
	3	17	1	On a Day-Ahead basis and within the Intraday periods, each TSO shall perform ...	On a Day-Ahead basis and within the Intraday periods, all TSO shall perform commonly..	TSO cooperation is crucial to ensure consistency of operational security analysis across the EU	legal	fundamental	general remark

DSO comment	3	17	1	On a Day-Ahead basis and within the Intraday periods, each TSO shall perform an Operational Security analysis on its Responsibility Area, taking into account all the elements contained in its Contingency List in order to detect possible Constraints and agree upon Remedial Actions with the affected TSOs.	On a Day-Ahead basis and within the Intraday periods, each TSO shall perform an Operational Security analysis on its Responsibility Area, taking into account all the elements contained in its Contingency List in order to detect possible Constraints and agree upon Remedial Actions with the affected TSOs and coordinate with affected DSO .	Not involving DSO when its networks or users are involved, would risk to jeopardize the Remedial Action.	technical	fundamental	general remark
DSO comment	3	17	5	Close to real-time, each TSO shall perform Operational Security analysis by using State Estimation.	Need for clarification	State Estimation is not defined	technical	fundamental	specific remark
	3	18	1	Not later than 24 months after the entry into force of this Network Code, ENTSO-E shall submit, a methodology for Operational Security analysis in operational planning, harmonised at least per Synchronous Area, to ACER for its opinion	Not later than 24 (?) months after the entry into force of this Network Code, ENTSO-E shall submit, a methodology and thresholds for Operational Security analysis in operational planning, harmonised at least per Synchronous Area, to ACER for its opinion	Need for clarification: Is the implementation time correct? Why is a period of 24 months needed to implement a existing methodology? These methodologies should be described in more detail in the NC and the thresholds have to be defined. Consistency with NC CACM should be ensured.	legal	fundamental	general remark
	3	18	2	TSOs shall consult ACER on the adaptations of the methodologies described in the previous paragraph	All TSOs in common shall consult ACER on the adaptations of the methodologies described in the previous paragraph. ACER has to approve these.	Approval of ACER is needed for a common proposal of all TSOs	legal	fundamental	general remark
	3	18	3	TSOs shall establish if necessary bilateral or regional agreements, covering, but not limited to, the following elements:	Need for clarification. This provision should normally be included in the OS NC and deleted in this code	Agreements with whom? Other TSOs? Or grid users?. Same as CACM regions?	legal	fundamental	general remark
	3	18	3	c) using Redispatch or Countertrade in order to prevent violations of the Operational Limits between the Responsibility Areas in accordance with Article 15.	using Redispatch or Countertrade, based on market principles , in order to prevent violations of the Operational Limits between the Responsibility Areas in accordance with Article 15.	Market principles shall apply for redispatch and countertrade. Consistency with NC CACM should be ensured.	legal	fundamental	general remark
	3	18	4	TSOs shall, at least at regional level, commonly evaluate the consequences and ...	Need for clarification	"Regional level" is not defined. This has to be coherent with CACM	legal	fundamental	general remark

DSO comment	3	18	6	When, as a result of Operational Security analysis, a Contingency is detected whose consequences affect other TSO(s) the detecting TSO shall share the information with the concerned TSO(s).	When, as a result of Operational Security analysis, a Contingency is detected whose consequences affect other TSO(s) or DSOs the detecting TSO shall share the information with the concerned TSO(s) and DSOs.	DSOs need information as a System Operator	technical	fundamental	general remark
	3	18	7	When a group of TSOs decide to coordinate Operational Security analysis	Need for clarification	What is "a group of TSOs" ? is there any approval NRA/ACER needed ? how transparent are these "multi party agreements" ?	legal	fundamental	general remark
	3	18	8	Add new sub-article	In case of implementation of a remedial action concerned market actors have to be compensated for costs and lost income following the methodologies set in the market related NCs	The need for compensation should also be mentioned here	technical	fundamental	general remark
	4	19 to 26		OUTAGE PLANNING	Outage planning definition should be corrected to be aligned with the FG OP . Outage planning process should be harmonized across Europe. The right of each country/area to define its own rules should be removed from the NC	The FG does not refer at all to PLANNING, but to "Scheduling of Planned Outages", which does not have the same meaning. Harmonisation of outage planning process is the most efficient solution.	technical	fundamental	general remark
	4	19	1	All TSOs shall adopt a multi-party agreement defining..	Need for clarification	It is not clear if this is "all" TSOs or "all those who want"; What is exactly a multi-party agreement ? Is there an approval process to define this Outage Planning Regions by ACER/ NRAs? These should be the same as CACM regions.	legal	fundamental	general remark
	4	20	1a	the modalities of the coordination meetings which shall take place at least on year-ahead and week-ahead time horizons;	Need for clarification	The scope of Coordination meetings is not defined, neither is stakeholder involvement.	legal	fundamental	general remark

DSO comment	4	20	4	Each TSO shall endeavour to provide the affected TSO with all relevant information at its disposal on the Transmission System, Power Generating or Demand Facility related projects that impact the operation of affected TSO's grids.	Each TSO shall endeavour to provide the affected TSO or DSO with all relevant information at its disposal on the Transmission System, Power Generating or Demand Facility related projects that impact the operation of affected TSO's or DSO's grids.	DSOs as need information as far as demand and generators connected to their or/and elements of the relevant distribution grid are concerned.	technical	fundamental	general remark
	4	21	1	No later than 3 months after the entry into force of this Network Code each TSO shall establish a list of:	No later than 3 months after the finalization of the methodology for Operational Security analysis pursuant Article 18 each TSO in coordination with the DSOs where appropriate, i.e. in the case that Relevant Power Generating Modules and relevant Demand Facilities are connected to their Distribution Network, and after the consultation and coordinated NRA approval shall establish a list of :	- The list shall be in agreement with the methodology proposed in Article 18. This methodology shall be submitted after 24 months the entry in force of this NC. It does not have any sense that the list is ready much before the methodology. - DSOs should have a role when defining the list of Relevant Power Generating Modules and relevant Demand Facilities connected to their Distribution Network - This must be approved by NRAs in a coordinated way	legal	fundamental	general remark
	4	21	1a	the Relevant Power Generating Modules, Relevant Demand Facilities and Relevant Non-TSO Owned Interconnectors which shall participate to the coordinated outage planning process as described in this Network Code; and	Need for clarifications	What are the criteria for defining relevance?	technical	fundamental	detailed remark
DSO comment	4	21	1 (b)	b) the types of information to be submitted by the concerned Outage Planning Agent according to Article 21(7) to the TSO.This information shall include, but not be limited to: i. information related to technical characteristics; and ii. information related to Availability.	b) the types of information to be submitted by the concerned Outage Planning Agent according to Article 21(7) to the TSO.This information shall include	In order to be efficient, and not to increase other parties' costs, TSOs should not ask twice for the same information within the NCs (Technical data is already	technical	fundamental	specific comment

						requested in other network codes - in particular, the OPS code already includes number of provisions for information exchange.			
	4	21	1 i	information related to technical characteristics	information related to technical characteristics as specified in the OS NC and respecting technical capabilities and as defined in the RfG or DCC network codes	The technical information regarding generators and consumers in system operation is mainly defined in OS NC The RfG and DCC NC are defining the technical capabilities. All the operational data shall be submitted only ONCE and in harmonised format. In the interest of avoiding unnecessary duplication of requirements RFG and DCC should be limited to definition of technical capabilities.	technical	fundamental	specific comment
	4	21	1 (bis)	New provision	<i>Each TSO shall consult stakeholders on the criteria used in its analysis to establish the list of Relevant Power Generating Modules, Relevant Demand Facilities and Relevant Non-TSO Owned Interconnectors concerned by the Outage Planning Process. Each TSO shall notify the NRA.</i>	Relevant Generating Modules, Demand Facilities and Non-TSO Owned Interconnectors found Relevant will have to apply this additional regulation. Therefore, stakeholders should be consulted on the criteria, and NRA should be notified. This would require that the full methodology has to be made public. To be mentioned in the relevant article(s)	legal	fundamental	general remark

DSO comment	4	21	2	Each TSO shall consult the other TSOs in its Outage Planning Region on the necessity to include specific Power Generating Modules or Demand Facilities in the proposed list.	Each TSO shall consult the other TSOs or DSOs where appropriate in its Outage Planning Region on the necessity to include specific Power Generating Modules or Demand Facilities in the proposed list.	DSOs should have a role to amend the list of Relevant Power Generating Modules and relevant Demand Facilities connected to their Distribution Network. Generators and demand should also be consulted in transparent manner	legal	fundamental	general remark
	4	21	3	a) all Power Generating Modules and Demand Facilities whose unavailability leads to a variation of the cross-border flows beyond the thresholds defined by each TSO according to the methodology in Article 18(1) or to a deviation from the Operational Security Limits	Need for clarification	Art. 18 defines a implementation time of 24 months. This does not match with the 3 months according to § 1 of this article	technical	fundamental	general remark
DSO comment	4	21	3	The proposed list shall contain at least: a) all Power Generating Modules and Demand Facilities whose unavailability leads to a variation of the cross-border flows beyond ...	The proposed list shall contain at least: a) all Power Generating Modules and Demand Facilities whose unavailability leads to a variation of the cross-border flows beyond X MW .	It will be discriminatory if each TSO shall define its own threshold to include a PGM in this list. The threshold should be defined in the code to allow DSOs to estimate the impact & costs over BaU.	technical	fundamental	general remark
DSO comment	4	21	3	all Non-TSO Owned Interconnectors.	all Relevant Non-TSO Owned Interconnectors.	to be in line with the name of the article	legal	fundamental	specific comment
DSO comment	4	21	3	b) all combinations of Power Generating Modules and Demand Facilities feeding into the Transmission System and Distribution Network through a single grid element of which their aggregated availability status influences cross-border flows beyond the thresholds defined by each TSO according to the methodology in Article 18(1); and	b) all combinations of Power Generating Modules and Demand Facilities feeding into the Transmission System and Distribution Network through a single grid element of which their aggregated availability status influences cross-border flows beyond the thresholds defined by each TSO according to the methodology in Article 18(1). If these facilities are connected to distribution network, DSOs shall pass on the necessary information (if any) to the corresponding TSO; and	DSOs are the system operator for agents connected to its Network. General question: link with market place (CACM ?) role of aggregators ? In general: role should be defined for individual grid users, aggregators, DSOs and TSO	technical	fundamental	general remark
	4	21	4	While respecting the provisions of Article 3(3), each TSO shall define and publish the following lists: a) list of parties required to provide information; and b) list of information to be provided.	Need for clarification. Provisions on data exchange should be coherent across various NC. Data exchanges is mandatory in the CACM, RfG and DCC NCs.	Coherence between NC is necessary to ensure that requirements are in line with capabilities and all types of grid	technical	fundamental	general remark

						users are treated in a similar manner in the NCs.			
DSO comment	4	21	5	In case changes occur in the installed units in its Control Area having an impact on other TSOs, each TSO shall reassess the list established in accordance with Article 21(1) and consult all other TSOs of its Outage Planning Regions on the need to adapt the list of relevant units.	In case changes occur in the installed units in its Control Area having an impact on other TSOs or DSOs, each TSO shall reassess the list established in accordance with Article 21(1) and consult all other affected Grid Operators of its Outage Planning Regions on the need to adapt the list of relevant units.	DSOs shall be involved if their are affected by changes in the installed units in its distribution grid area. Also generators/ demand if concerned need to be informed	legal	fundamental	general remark
	4	21	1 to 5		Need for clarification. A clear definition is required about the size of the plants from whom an individual scheduling is necessary: all directly connected to the TSOs grid or from 110 kV connection points upwards. Adjustment with type definition in other NCs e.g RfG is necessary.	Clear "Synchronisation" between different NCs is necessary to ensure that requirements are in line with capabilities and all types of grid users are treated in a similar manner in the NCs. This keeps unclear in the code and is left to be defined on an individual TSO basis.	technical	fundamental	general remark
	4	21	6	When a TSO identifies a need to update the list established in accordance with Article 21(1), the concerned TSO shall update the list while respecting the provisions of Article 3(3). The TSO shall publish the updated list in accordance with Article 21(4).	When a TSO identifies a need to update the list established in accordance with Article 21(1), the concerned TSO shall update the list while respecting the provisions of Article 3(3). The TSO shall publish the updated list in accordance with Article 21(4) and an adequate deadline to comply with Article 21(1)"	An update in the list could have an unforeseen impact on duties of a new Relevant Grid User.			
DSO comment	4	21	7	For every Relevant Power Generating Module, Relevant Demand Facility and Relevant Non-TSO Owned Interconnector, the concerned owner shall appoint an Outage Planning Agent.	Need for clarification	Planning agent not foreseen in CACM process ? What is the link with the scheduling agent	technical	fundamental	general remark
DSO comment	4	21	8	New provision	When a Relevant Power Generating Module or Relevant Demand Facility is connected at distribution network, DSO shall be properly engaged in the process.	Not involving DSO when its users are involved, endanger the whole process and do not respect the principle of coordination.	technical	fundamental	general remark

DSO comment	4	22	2	2. The list of Relevant Grid Elements shall contain at least: a) all Grid Elements interconnecting Control Areas; b) all Grid Elements of a Control Area whose planned outage impact another Control Area beyond the thresholds defined by each TSO according to the methodology in Article 18(1);	2. The list of Relevant Grid Elements shall contain at least: a) all Grid Elements interconnecting Control Areas; b) all Grid Elements of a Control Area whose planned outage impact another Control Area beyond XX MW	The threshold should be defined in the code, so that DSOs can estimate the impact (eventually costs) over BaU.	technical	fundamental	general remark
DSO comment	4	22	6	No later than 6 months after the entry into force of this Network Code, each TSO shall identify, in coordination with the concerned Distribution System Operators, the elements of the Distribution Network whose planned outages impact another Control Area beyond the thresholds defined by each TSO according to the methodology in Article 18(1).	No later than 6 (?) months after the entry into force of this Network Code, each TSO shall identify, in coordination with the concerned Distribution System Operators, the elements of the Distribution Network whose planned outages impact another Control Area beyond XX MW and while respecting the provisions of Article 3(3) .	1) NRA should be informed Thresholds should be published within the code 2) Need for clarification. Art. 18 defines a implementation time of 24 months. This does not match with the 6 months in this provision. 24 Months is valid for the coordinated methodology. Simple cross border definition is probably already existing or can be made quickly.	legal + technical	fundamental	general remark
	4	23	1bis	New sub-article	When this code refers to data that Outage Planning Agents have to provide to TSOs, Outage Planning Agents only have to provide, if any, data not already published by appliance of the transparency regulation in force at that time.	Coherence needs to be made with transparency regulation. This proposal ensures maximum coherence, as each data will be provided only once	technical	fundamental	general remark
	4	23	2	Before the 1st of August of each year, the Outage Planning Agents of a Relevant Power Generating Module, a Relevant Demand Facility or Relevant Non-TSO Owned Interconnector shall submit a proposal on the Availability of its asset for the following year to its TSO in accordance with Article 21 and Article 22.	Before the 1st of August of each year, the Outage Planning Agents of a Relevant Power Generating Module, a Relevant Demand Facility or Relevant Non-TSO Owned Interconnector shall submit an indicative availability schedule , of its asset for the following year to its TSO, and relevant DSOs, based on the best information at its disposal at this stage , in accordance with Article 21 and Article 22.	Generators should not have to provide TSO with a definitive year-ahead outage planning, renouncing to adapt it freely to a changing environment from the 1st, August onward. Therefore, it must be acted that the initial outage planning, elaborated on the basis of the best information available at this time	technical	fundamental	detailed remark

						period and on which TSOs can build a common operational security analysis for the Outage Planning Region, is likely to be amended by Generators or Demand facility operators. DSOs shall be informed about the availability of the assets connected to their networks.			
4	23	2	Before the 1st of August of each year, the Outage Planning Agents of a Relevant Power Generating Module, a Relevant Demand Facility or Relevant Non-TSO Owned Interconnector shall submit a proposal on the Availability of its asset for the following year to its TSO in accordance with Article 21 and Article 22.	Need for clarification. REMIT already obliges this publication, information should only be provided once !	It should be sufficient to confirm TSOs that information published under REMIT and under transparency regulation are still up to date.	technical	fundamental	detailed remark	
4	23	5	In order to prevent the occurrence of an Outage Incompatibility, each TSO shall assess on a Year-Ahead horizon whether Operational Security can be fulfilled without Load-Shedding	In order to prevent the occurrence of an Outage Incompatibility, all TSO shall commonly assess on a Year-Ahead horizon whether Operational Security can be fulfilled without Load-Shedding	Outage incompatibility analysis can not be done by each TSO separately and requires cooperation between TSOs	legal	fundamental	general remark	
4	23	6	If an Outage Incompatibility arises, the TSO and all affected Outage Planning Agents shall coordinate and the affected Outage Planning Agents shall propose to the concerned TSO an alternative outage plan relieving the detected incompatibilities.	If an Outage Incompatibility arises which cannot be solved by adoptions of planning on the TSO level , the TSO and all affected Outage Planning Agents shall coordinate and the affected Outage Planning Agents shall be consulted by the concerned TSO regarding an alternative outage plan relieving the detected incompatibilities.	In the first step TSOs should solve an Outage Incompatibility by adoptions on the TSO level. Next step is involvement of grid users, The affected Outage Planning Agents do not have full knowledge of all plannings, so they should not be subject to an obligation.	legal	fundamental	general remark	
4	23		New article	If the incompatibility can be solved by adapting TSO overhaul plannings, the TSO have to adapt the outage planning of its grid elements.	TSO have a greater flexibility to reschedule its planning.	technical	fundamental	detailed remark	

	4	23	7	<p>If no alternative outage plan relieving the detected Outage Incompatibilities is proposed to the TSO in accordance with Article 23(6), the TSO shall establish an alternative outage plan relieving the detected Outage Incompatibilities, taking into account the impact on all affected Market Participants. The TSO shall inform all affected Outage Planning Agents as well as the concerned NRA of this alternative outage plan and of the reasons which motivated its adoption.</p>	<p>If no alternative outage plan relieving the detected Outage Incompatibilities is proposed to the TSO in accordance with Article 23(6), the TSO shall establish an alternative outage plan relieving the detected Outage Incompatibilities, taking into account the impact on all affected Market Participants. The TSO shall inform all affected Outage Planning Agents as well as the concerned NRA of this alternative outage plan and of the reasons which motivated its adoption.</p> <p>According to national regulations, bilateral contracts or any other agreed upon mechanism, this shall lead to financial compensation to affected Market Participants including the financial compensation agreed with the affected market participants. Under no circumstances shall generators' property rights be violated by being compelled to alter their outage plans.</p>	<p>The supporting paper agrees on the principle of financial compensation as a way to coordinate all parties affected by outages incompatibilities, this should thus be included in the code. Compensation shall be obligatory. Furthermore, TSOs are asset owners. Outage planning and commissioning is connected to costs, especially if planned outages must be moved in time when operators and workers are commissioned. How do we secure that TSO operate in a non-discriminatory and neutral manner, when their own assets are at stake?</p>	legal	fundamental	detailed remark
	4	23	8	<p>a) combination of planned outages to the greatest extent possible to minimize the impact on the market while preserving Operational Security; and</p>	Need for clarification	<p>What is minimising the impact on the market ? it can be different for different market players !</p>	technical	fundamental	detailed remark
	4	23	9	<p>Each TSO shall plan outages of all remaining Relevant Grid Elements in accordance with Article 22 taking into account Relevant Non-TSO Owned Interconnectors, Relevant Power Generating Modules and Relevant Demand Facilities outage proposals and outages of Control Area Interconnection grid elements.</p>	Need for clarification	<p>This is a more general comment regarding TSO neutrality. TSOs are asset owners. Outage planning and commissioning is connected to costs, especially if planned outages must be moved in time when operators and workers are commissioned. How do we secure that TSO operate in a non-discriminatory and neutral manner, when their own assets are at stake?</p>	technical	fundamental	general remark

	4	23	11	If no agreed solution with the concerned Outage Planning Agents can be found, and the outages are required to ensure the integrity, safety or development of its grid, the TSO shall establish an alternative outage plan relieving the detected Outage Incompatibilities, taking into account the impact on all affected Market Participants. The TSO shall inform all affected Outage Planning Agents as well as the concerned NRA of this alternative outage plan and of the reasons which motivated its adoption.	“If no agreed solution with the concerned Outage Planning Agents can be found, and the outages are required to ensure the integrity, safety or development of its grid, the TSO shall establish an alternative outage plan relieving the detected Outage Incompatibilities, minimising where possible the impact on all affected Market Participants and compensate them financially for the incurred costs. The TSO shall inform all affected Outage Planning Agents as well as the concerned NRA of this alternative outage plan and of the reasons which motivated its adoption.”	This article only says that TSO decide and "impose" their decision on outage planning agents. NRA are only informed, no COMPENSATION modalities are included, even not a METHODOLOGY is proposed to establish compensation principles. The technical impact is equally important to consider.	technical	fundamental	general remark
DSO comment	4	23	14	Each TSO shall provide the concerned Outage Planning Agent with the final Year-Ahead outage plans for the following year of the Relevant Non-TSO Owned Interconnectors, Relevant Power Generating Modules and Relevant Demand Facilities before the 1st December of each year	Each TSO shall provide the concerned Outage Planning Agent and the relevant DSOs with the final Year-Ahead outage plans for the following year of the Relevant Non-TSO Owned Interconnectors, Relevant Power Generating Modules and Relevant Demand Facilities before the 1st December of each year	DSOs shall be informed about the availability of the elements of the TSO grid having an influence on this grid elements and generators/demand connected to their distribution networks	legal	fundamental	general remark
DSO comment	4	23	18	New provision	When a distribution network Relevant Grid Element, or a distribution network connected Relevant Power Generation Module or Relevant Demand Facilities is engaged in the process, the process shall be coordinated with the affected DSO.	Otherwise, as those elements are relevant for cross border interchanges, DSO as not being even aware of that, could make an action on its network that endangers cross border exchanges. DSOs also have to be informed because of interference with their outage and outage planning.	technical	fundamental	general remark

	4	23	19	New provision	In all outage planning the Outage Planning Agents of the Relevant Power Generating Facilities, Relevant Demand Facilities, Relevant Grid Elements and Relevant Non-TSO Owned Interconnectors, shall respect their transparency obligations with regard to the publication of fundamental data and inside information, as required under the third package and relevant Framework Guidelines and Network codes, and REMIT.	It is important that these Network codes do not weaken the fundamental obligations of market information.	technical	fundamental	general remark
	4	24	1	After finalisation of the Year-Ahead outage planning process in accordance with Article 23, and before real-time execution, all Outage Planning Agents and TSOs participating in outage planning shall have the right to initiate an adaptation of the validated outage plan. Each TSO and each Outage Planning Agent shall handle this request for its own assets according to the requirements set forth in the remainder of this article.	After having communicated their initial indicative outage planning for the following year in accordance with Article 23, all Outage Planning Agents participating in outage planning shall have the right to notify an adaptation of the initial outage plan, as long as there are three full months between the notification and the beginning of the outage. The according notification has to be treated under Article 23 conditions. At the beginning of the third month ahead of real time, the outage plan delivered by Outage Planning Agents will be considered as validated. Each TSO and each Outage Planning Agent shall have the right to initiate an adaptation of the validated outage plan for its own assets according to the requirements set forth in the remainder of this article.	Relevant Generating Modules should be able to modify their initial availability schedule, according to economical or technical environment change without being submitted to TSO approval until a reasonable period before real-time execution. Otherwise their property rights are violated. No TSO "approval" is needed, only information and consultation.	technical	fundamental	general remark
	4	24	1 bis	New provision	Under the scrutiny of the NRA, the following rules may apply, for part or all of the Relevant Power Generating Module, Relevant Demand Facility or Relevant Non-TSO Owned Interconnector : a) TSO has the right to notify, and modify periodically, a limited number of correlation periods. b) Outside these correlation periods, agents may freely update their planning. c) within there correlation periods, the concerned TSO shall follow the procedure described in Article 24 (2)	This proposal allows the TSO to specify relevant periods for system security, and gives users the according visibility. As a result, a period not declared as sensible by the relevant TSO should not need its agreement for a planning update. Under limited and clearly defined circumstances, these periods could go beyond the last three months before real time.	technical	fundamental	general remark

	4	24	2c	coordinating with all impacted parties upon detection of Outage Incompatibilities;	c) coordinating with all impacted parties upon detection of Outage Incompatibilities and check if economical solutions for all impacted parties are possible;	Economic efficiency should be the basis for assessing the consequences of outage planning changes.	technical	fundamental	general remark
	4	24	2d	issuing a reasoned decision on the change request	d) issuing a reasoned decision on the change request respecting the limits for a normal status of the grid as defined in OS NC	Limits for a normal status of the grid have to be respected.	technical	fundamental	detailed remark
	4	24	2d i	the TSO shall reject the change request when all detected Outage Incompatibilities cannot be relieved after coordination;	Need for clarification (Otherwise delete the article.)	How is disagreement treated in case PGF disagrees with the TSOs judgement? No violation of property rights.	legal	fundamental	general remark
	4	24	3 bis	New provision	If the outcome of the coordination step between all parties affected by outages incompatibilities is leading to a desoptimisation of a Market participants availability schedule, financial compensation from the change request initiating party to the changing parties could be envisaged, as decided at national or regional level. There should be no compensation from one generator to another one. TSO has to compensate all generators affected based on the least cost principle	The supporting paper agrees on the principle of financial compensation as a way to coordinate all parties affected by outages incompatibilities, this should thus be included in the code.	technical	fundamental	general remark
	4	24	4	.... shall provide the concerned TSO with a detailed Availability plan and a Generation Schedule or Consumption Schedule as...	.... shall provide the concerned TSO with a detailed Availability plan and an indicative Generation Schedule or Consumption Schedule as...	A Generation schedule is in principle unknown 2 months in advance, it can only be an indicative schedule	technical	fundamental	detailed remark
	4	24	5	... with an update of the Availability plan, of the Generation schedule and of the Consumption Schedule as early as possible.	... with an update of the Availability plan, of the indicative Generation schedule and of the Consumption Schedule as early as possible.	A Generation schedule is in principle unknown 2 months in advance, it can only be an indicative schedule	technical	fundamental	detailed remark
DSO comment	4	24	6	New sub-article	When a distribution network Relevant Grid Element, or a distribution network connected Relevant Power Generation Module or Relevant Demand Facilities is engaged in the process, the process shall be coordinated with affected DSO.	Otherwise, as those elements are relevant for cross border interchanges, DSO as not being even aware of that, could make an action on its network that endangers cross border exchanges.			

	4	25	2	In case of Forced Outage of a Relevant Power Generating Module, a Relevant Demand Facility or a Relevant Non-TSO Owned Interconnector, the Outage Planning Agent shall inform as soon as possible the concerned TSO of this Forced Outage	Need for clarification	Consistency needed with other NC and REMIT: information also published under REMIT and transparency guidelines. Definition of relevance is key for this topic.	legal	fundamental	general remark
	4	25	4	In case of Forced Outage of one or several of its Relevant Grid Elements, a TSO shall inform all other impacted TSOs as soon as possible and shall provide the following information:	In case of Forced Outage of one or several of its Relevant Grid Elements, a TSO shall inform all other impacted TSOs and the Outage Planning Agents of the Relevant Power Generating Facilities, Relevant Demand Facilities and Relevant Non-TSO Owned Interconnectors as soon as possible and shall provide the following information:	Information of forced outages of relevant grid elements is also important for grid users.	technical	fundamental	general remark
DSO comment	4	25	7	New provision	When a distribution network Relevant Grid Element, or a distribution network connected Relevant Power Generation Module or Relevant Demand Facilities is engaged in the process, the process shall be coordinated with affected DSO.	Otherwise, as those elements are relevant for cross border interchanges, DSO as not being even aware of that, could make an action on its network that endangers cross border exchanges.	technical	fundamental	general remark
	4	26	1	Each Outage Planning Agent shall ensure that all Relevant Power Generating Modules under its responsibility which are deemed available are ready to produce electricity in accordance with their declared technical capabilities when necessary to maintain Operational Security without Load Shedding, being restricted to possible constraints as for example start-up delays, and barring Forced Outages.	Each Outage Planning Agent shall ensure that all Relevant Power Generating Modules under its responsibility which are declared available are ready to produce electricity in accordance with their declared technical capabilities when necessary to maintain Operational Security without Load Shedding, being restricted to possible constraints as for example start-up delays, and barring Forced Outages.	The wording "deemed" is misleading			
	4	26	2	Each Outage Planning Agent shall guarantee that all Relevant Generating Modules and Relevant Demand Facilities under its responsibility that were deemed unavailable do not produce or respectively consume electricity.	Each Outage Planning Agent shall guarantee that all Relevant Generating Modules and Relevant Demand Facilities under its responsibility that were declared unavailable do not produce or respectively consume electricity.	if your plant is earlier available after an overhaul, it should be possible to generate power. The wording "deemed" is not correct. It has to be ensured that the generators has the flexibility to adopt his schedules.	technical	fundamental	detailed remark

DSO comment	4	26	5	Before executing planned outages of Relevant Grid Elements, Relevant Power Generating Modules, Relevant Demand Facilities or Relevant Non-TSO Owned Interconnectors which would jeopardize the Operational Security, and upon request from a TSO, each concerned party shall delay the corresponding outage according to the instructions of the TSO.	Before executing planned outages of Relevant Grid Elements, Relevant Power Generating Modules, Relevant Demand Facilities or Relevant Non-TSO Owned Interconnectors which would jeopardize the Operational Security, and upon request from a TSO or a relevant DSO , each concerned party shall delay the corresponding outage according to the instructions of the TSO or the DSO if they are connected to distribution network.	1) DSOs are the system operator for agents connected to their Networks. Relevant DSOs need information as a System Operator	legal	fundamental	general remark
	4	26	5	Before executing planned outages of which would jeopardize the Operational Security, and upon request from a TSO, each concerned party shall delay the corresponding outage according to the instructions of the TSO.	Before executing planned outages of which would jeopardize the Operational Security, and upon request from a TSO, each concerned party shall delay the corresponding outage according to the instructions of the TSO taking into account a financial compensation for the affected parties.	Compensation is mandatory. Criteria for "jeopardizing the Operational Security" should be developed.	legal	fundamental	general remark
DSO comment	4	26	6	Before executing a planned test during the Commissioning period of Relevant Grid Elements, Relevant Power Generating Modules, Relevant Demand Facilities or Relevant Non-TSO Owned Interconnectors which would jeopardize Operational Security, and upon request from a TSO, each concerned party shall delay the corresponding test according to the instructions of the TSO.	Before executing a planned test during the Commissioning period of Relevant Grid Elements, Relevant Power Generating Modules, Relevant Demand Facilities or Relevant Non-TSO Owned Interconnectors which would jeopardize Operational Security, and upon request from a TSO or a relevant DSO , each concerned party shall delay the corresponding test according to the instructions of the TSO or the DSO.	1) DSOs are the system operator for agents connected to their Networks. Relevant DSOs need information as a System Operator	legal	fundamental	general remark
	4	26	6	Before executing a planned test during the Commissioning period of ... which would jeopardize Operational Security, and upon request from a TSO, each concerned party shall delay the corresponding test according to the instructions of the TSO.	Before executing a planned test during the Commissioning period of ... which would jeopardize Operational Security, and upon request from a TSO, each concerned party shall delay the corresponding test according to the instructions of the TSO taking into account a financial compensation for the affected parties..	Compensation is mandatory	legal	fundamental	general remark
	4	26	5 to 6	"5. Before executing planned outages... which would jeopardize the Operational Security, and upon request from a TSO, each concerned party shall delay the corresponding outage according to the instructions of the TSO." "6. Before executing a planned test... which would jeopardize Operational Security, and upon request from a TSO, each concerned party shall delay the corresponding test according to the instructions of the TSO"	Need for clarification	This kind of TSO instructions about an outage/test shall take into account two inter-related technical criteria: 1. A specific level of security breached by the outage, established precisely in the OS NC. 2. Technical feasibility. Examples: if the shut-down sequence has been initiated by the Relevant Power	technical	fundamental	detailed remark

						Generating Module or safety is at stake, the instruction would not be achievable.			
	4	26	7	Each Outage Planning Agent shall inform the TSO as soon as possible in case of a deviation from the validated outage plan and shall provide at least the reason for and the duration of the deviation.	Each Outage Planning Agent shall inform the TSO as soon as possible in case of a deviation from the validated outage plan and shall provide at least the reason for and the expected duration of the deviation.	The duration of the deviation may not be fully predictable for outage planning agent.	technical	fundamental	detailed remark
	4	26	8	Each TSO shall inform all impacted parties as soon as possible in case of a deviation from the validated outage plan, at least including the reason for and the duration of the deviation.	Each TSO shall inform all impacted parties as soon as possible in case of a deviation from the validated outage plan, at least including the reason for and the duration of the deviation. The reasons for such deviation shall be published.	Deviations from the validated outage plan shall be justified and published	technical	fundamental	general remark
DSO comment	4	26	8	Each TSO shall inform all impacted parties as soon as possible in case of a deviation from the validated outage plan, at least including the reason for and the duration of the deviation.	Each TSO shall inform all impacted parties as soon as possible in case of a deviation from the validated outage plan, at least including the reason for and the duration of the deviation. Relevant DSO shall be also included if affected.	Not involving relevant DSO when its users or grid elements are involved, endanger the whole process and do not respect the principle of coordination.	technical	fundamental	general remark
	5	27	1	Each TSO shall perform an Adequacy analysis in its Control Area by assessing against these criteria and principles whether....	TSOs shall commonly perform an Adequacy analysis in its Control Area by assessing against these criteria and principles whether....	TSO cooperation in doing adequacy analysis is necessary.	technical	fundamental	general remark
	5	28	2	When updating the common methodology referred to in Article 28.1, ENTSO-E shall: c) consult ACER.	When updating the common methodology referred to in Article 28.1, ENTSO-E shall: c) consult ACER and receive its approval.	The approval from ACER is mandatory	legal	fundamental	general remark
	5	29	2	If Adequacy is not ensured as a result of this monitoring referred to in Article 29, the TSO shall provide updated information to the concerned NRA and to the affected TSO's.	If Adequacy is not ensured as a result of this monitoring referred to in Article 29, the TSO shall provide updated information to the concerned NRA, to the affected TSO's and the market participants.	Transparency rules have also be respected.	technical	fundamental	general remark
	5	30	1	Each TSO shall perform an Adequacy analysis on a Day-Ahead and Intraday basis by using: f) Power Generating Modules Availability and capabilities.	Each TSO shall perform an Adequacy analysis on a Day-Ahead and Intraday basis by using: f) Power Generating Modules Availability (according to OS NC) and capabilities (according to the RfG NC only for new units).	Consistency with other NC is mandatory for data transfer : RfG for capabilities, OS for availability	legal	fundamental	general remark

	5	30	3	If Adequacy is not fulfilled according to analysis referred to in Article 30(1) each TSO shall publish the results of the Adequacy analysis referred to in Article 30(1) and ...	If Adequacy is not fulfilled according to analysis referred to in Article 30(1) each TSO shall publish for all market participants the results of the Adequacy analysis referred to in Article 30(1) and ...	This is important information for market participants and it shall be published according to the transparency rules.	technical	fundamental	detailed remark
	6	31	title	ANCILLARY SERVICES	This chapter should deal with reactive power ancillary services only and any reference to active power ancillary services (probably except for Article 31 1.) should be deleted as this will be dealt with the NC balancing.	Definition of relevant ancillary services is missing. Are tools for dynamic stability included? Clear separation of provisions in different codes is necessary. Unnecessary overlaps between NCs should be avoided.	technical	fundamental	general remark
	6	31	2	At least for active and reactive power, either on an autonomous basis or in coordination with other TSOs, each TSO shall:	At least for active (respecting the provisions of the LFC&R NC) and reactive power, all TSOs shall commonly:	This has to be decided by all TSO commonly and also the provisions of the LFC&R have to be respected.	legal	fundamental	general remark
DSO comment	6	31	2	New sub-article	d) In line with Article 3.3, Significant DSO shall have the right to be informed about availability of Ancillary Services.	Most of the new RES capacity will be connected at Distribution Networks. DSOs need this information.	technical	fundamental	general remark
	6	31	5	Power Generating Facility Operators and Demand Facility Operators shall provide the relevant Ancillary Services as contractually agreed upon with the concerned TSO in time, with the agreed upon quantities per product and in the correct format.	to delete the provision	Each PGFO and Demand Facility Owner has a contract with the TSO and has to respect this due to other legislation.	legal	fundamental	general remark
	6	32	3	Each TSO shall ensure that the Voltage Control of its transmission system for all events includes in its Contingency List and for year-ahead scenarios covering at least: c) generation patterns affecting voltage profiles.	Each TSO shall ensure that the Voltage Control of its transmission system for all events includes in its Contingency List and for year-ahead scenarios covering at least: c) generation patterns affecting voltage profiles including dynamic stability issues.	Also dynamic stability has to be ensured.	technical	fundamental	detailed remark

DSO comment	6	32	4	When the level of reactive power Ancillary Services is not sufficient to ensure the Operational Security of the transmission system, each TSO shall: a) inform affected TSOs; b) establish internal or Cross Control Area Remedial Action; and c) give the priority to the Remedial Actions in accordance with Article 6(9) of the [NC OS].	When the level of reactive power Ancillary Services is not sufficient to ensure the Operational Security of the transmission system, each TSO shall: a) inform affected TSOs; b) establish internal or Cross Control Area Remedial Action; and c) give the priority to the Remedial Actions	Non approved NC shouldn't be mentioned in this NC. Otherwise requirements could change after the code being approved.	legal	fundamental	general remark
DSO comment	6	32	5	New provision	In order to manage the ratio of active and reactive power at the border between Transmission & Distribution, Significant DSO shall have the right to assess until real time if there are available reactive power sources.	Significant DSOs have no tools to ensure the active/reactive power ratio at T/D connection point.	technical	fundamental	general remark
DSO comment	7	33 to 36		SCHEDULING	Need for clarification	Scheduling methodologies and tools should be harmonized in Europe (e.g.: message format, position to schedule,...). As it is now proposed, there is no attempts to align and coordinate scheduling platforms. All reference to national legal framework should be limited to specific situations when it does not intervene against NC principles and harmonization rules Criteria required: 1. Need for harmonized D-1 scheduling position (net or buy-sell position separately) 2. ID trades should only be scheduled in D+1	technical	fundamental	general remark
	7	33	2	Each TSO operating a Market Balance Area shall establish the provisions necessary to process Schedules, provided from Scheduling Agents, in accordance with the applicable national legal framework.	Each TSO operating a Market Balance Area shall establish the provisions necessary to process Schedules, provided from Scheduling Agents, in accordance with the harmonised European legal framework.	Lack of harmonisation: inappropriate reference to national legislation	legal	fundamental	general remark

	7	34	1	Each Scheduling Agent within a Market Balance Area shall submit to the concerned TSO operating the Market Balance Area in accordance with the national legal framework the following Schedules:	Each Scheduling Agent within a Market Balance Area shall submit to the concerned TSO operating the Market Balance Area in accordance with the harmonised European legal framework and harmonised European procedures the following Schedules:	Lack of harmonisation: when should market parties "submit"? There is no gate closure here, while we all know that is different in all markets, also the details are not defined: again: it should be similar in all markets. (E.g. : Germany only a global schedule, not plant by plant etc... Lack of harmonisation: inappropriate reference to national legislation	legal	fundamental	general remark
	7	34	2	Each Scheduling Agent of a Market Coupling Operator shall submit Schedules to the concerned TSOs operating a Market Balance Area in accordance with the applicable national legal framework.	Each Scheduling Agent of a Market Coupling Operator shall submit Schedules to the concerned TSOs operating a Market Balance Area in accordance with the applicable harmonised European framework.	Lack of harmonisation: inappropriate reference to national legislation	legal	fundamental	general remark
	7	34	2	Internal Commercial Trade Schedules between Scheduling Agents of Market Coupling Operators and Scheduling Agents of Nominated Electricity Market Operators, if requested by concerned TSOs.	Internal Commercial Trade Schedules (according to a harmonised European procedure) between Scheduling Agents of Market Coupling Operators and Scheduling Agents of Nominated Electricity Market Operators, if requested by concerned TSOs.	Lack of harmonisation: inappropriate reference to national legislation	technical	fundamental	specific remark
DSO comment	7	34	4	New provision	DSO shall be informed of the schedules of units connected at its network to prevent in advance possible restrictions at distribution network	Otherwise a non-expected restriction at distribution network of Significant DSO could affect cross border flows, security supply and RES integration.	technical	fundamental	general remark

	7	33-36		SCHEDULING	More precise description is necessary. The NC should provide for harmonisation of processes and data format	The chapter is very high level and ENTSO-E stresses several times that scheduling procedures must be "in accordance with the applicable national legal framework". In 2003 ETSO made an attempt in harmonising scheduling and introduced the ESS format. However, our day to day experience is that we have to operate for each country a diverging scheduling system even though some might call themselves ESS 3.0 they are not the same. Even more there are diverging scheduling procedures for each border in place.	technical	fundamental	general remark
	7	35	1	No later than 12 months after the entry into force of this Network Code		Implementation time is not coherent and not justified	technical	fundamental	specific remark
	7	35	2	No later than 12 months after the entry into force of this Network Code		Implementation time is not coherent and not justified	technical	fundamental	specific remark
	7	35	2	.... between all Market Balance Areas within Synchronous Area shall implement a process to ensure that all Schedules between all Market Balance Areas within Synchronous Area are balanced, including areas whose operators have no legal obligation to respect this Network Code.		It is legally not correct to impose this in areas without any legal obligation.	legal	fundamental	general remark
	7	36	1	Netted Area AC Position when the Market Balance Area is interconnected to other Market Balance Areas via AC transmission links.		Why are DC interconnectors excluded?	technical	fundamental	general remark
	8	37	4	All TSOs and RSCIs shall have access to all information contained on the ENTSO-E operational planning data environment.	All TSOs and RSCIs shall have access to all information contained on the ENTSO-E operational planning data environment. Market participants shall have a limited view on this data environment in order to respect the transparency guidelines		technical	fundamental	detailed remark

DSO comment	8	37	5	New provision	In case a DSO network contains Relevant Power Generating Modules, Demand Facilities or interconnectors, the DSO will have access to the data contained in the operational planning environment the model of TSO grid which directly affects to the grid it operates so that he can use them for Operational Planning and security analysis.	It is necessary so that relevant DSOs (that are treated fairly), and if they have installations relevant for cross-border issues, they can discuss their influence with their TSO. This data is also valuable for the DSO as system operator of its network.	technical	fundamental	specific remark
DSO comment	8	37	5	New provision	Each DSO shall be granted access to the content regarding outage planning contained in its common TSO platform which directly related to the grid it operates; subject to confidentiality guidelines.	This comment had been already agreed with DSO TEG and then removed with the justification of not being allowed to have access to all TSOs information: DSO just NEEDS information of its network and users, which is extremely easy to implement in a IT platform. If that facilities are relevant, DSO information should be also part of this NC.	technical	fundamental	general remark
DSO comment	8	37	6	New provision	Each Significant DSO shall be granted access to the content regarding the model of TSO grid in its common TSO platform which directly affects to the grid it operates; subject to confidentiality guidelines.	Significant DSO needs the information of TSO network that influences distribution network in order to perform its security analysis, avoiding this way influencing transmission system and overall system security.	technical	fundamental	general remark
	8	38	2	All Common Grid Models shall be made available on the ENTSO-E operational planning data environment.	All Common Grid Models shall be made available to all TSO and market participants on the ENTSO-E operational planning data environment.	This information is also relevant for market participants	technical	fundamental	general remark
	8	38	3bis	New provision	Information for week-ahead time horizon should be included in the new provision	Consistency across the NC should be ensured	technical	fundamental	general remark

	8	39	1	The ENTSO-E operational planning data environment shall contain a module for the storage and sharing of all relevant information for coordinated outage planning	The ENTSO-E operational planning data environment shall contain a module for the storage of all relevant information for coordinated outage planning. This information shall be shared to all market participants.	Consistency with the transparency guidelines should be ensured.	technical	fundamental	general remark
	8	39	2	planned outages of Relevant Non-TSO Owned Interconnectors including, but not limited to outage period, specific conditions for execution of the outage and restitution time.	Need for clarification	Why is restitution time only mentioned for interconnectors and not for a) b) c)	technical	fundamental	specific remark
	8	40	1	The ENTSO-E operational planning data environment shall allow the access and sharing of all relevant information for coordinated Adequacy analysis.	The ENTSO-E operational planning data environment shall allow the access and sharing of all relevant information for coordinated Adequacy analysis. This information shall be shared to all market participants.	According to the transparency guidelines.	technical	fundamental	general remark



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