

## Operational Security Network Code

Public consultation – 3 November 2012

### EFET<sup>1</sup> Response

	Original text	Proposed change	Justification
Recital (4)	Secure transmission system operation can be made possible only if there is an obligation for the TSOs, Distribution System Operators (DSOs), Power Generating Facility Operators and Demand Facilities to cooperate and to meet the relevant minimum technical requirements for the operation of the interconnected transmission systems as one entity.	Secure transmission system operation can be made possible only if TSOs, Distribution System Operators (DSOs), Power Generation Operators and Demand Facilities cooperate, where necessary, to meet the relevant minimum technical requirements for the operation of the interconnected transmission systems.	The reference “obligation” and “to one entity” is not consistent with the concepts of unbundling, commercial relationships between market participants, and regulated third party access to networks required by the Directives and Regulation
Recital (5)	ENTSO-E has drafted this Network Code for Operational Security aiming at setting out clear and objective requirements for TSOs, DSOs, Power Generating Facility and Demand Facilities in order to contribute to non-discrimination, effective competition and the efficient functioning of the internal electricity market and to ensure system security.	ENTSO-E has drafted this Network Code for Operational Security aiming at setting out clear and objective requirements for TSOs, DSOs, Power Generating Facility and Demand Facilities in order to contribute to non-discrimination, to make more cross border capacity available and leading to effective competition and the efficient functioning of the internal electricity market and to ensure system security.	It is necessary to mention that an objective of the NC is to allow more cross border capacity to be made available as a result of the strengthened requirements for operational security

<sup>1</sup> EFET is an industry association which was set up in order to improve the conditions of energy trading in Europe, mainly in electricity and gas markets. Established in 1999, EFET represents today over 100 companies in 27 European countries. EFET works to promote and facilitate European energy trading in an open, transparent market unhindered by national borders. More information at: [www.efet.org](http://www.efet.org).

Recital (14)	The goal of the congestion and power flow management is twofold: the effective and efficient functioning of the Internal Electricity Market and the maintaining of the Operational Security. These objectives should be attained by an adequate coordination between TSOs in order to get an overview of the power-flows all over the transmission system, to detect the potential constraints, and to set up the Remedial Actions when necessary.	The goal of power flow management is twofold: the effective and efficient functioning of the Internal Electricity Market and the maintaining of the Operational Security. These objectives should be attained by an adequate coordination between TSOs in order to get an overview of the power-flows all over the transmission system, to detect the potential constraints, and to set up the necessary Remedial Actions.	There will always be some need for remedial actions. In addition, congestion management is merely a specific form of power flow management, so "congestion management" can be deleted
Recital (18)	The Operational Security of the transmission system and all the activities which contribute to it require an accurate, timely and adequate exchange of data and information. Data exchange should therefore not encounter any barrier between the different actors involved in ensuring the Operational Security.	The Operational Security of the transmission system and all the activities which contribute to it require an accurate, timely and adequate exchange of data and information.	This recital goes too far in seeking to justify almost unlimited provision of data from network users. Some concept of proportionality is needed here.
Article 2-	<b>Active Power Reserve</b> means the operational reserves available for maintaining the planned power exchange and for guaranteeing secure operation of the transmission system	Delete	This should be dealt with in the LFC NC.
	<b>Alert State</b> means the operational state where transmission system is within Operational Security Limits, but a Contingency has been detected, for which in case of occurrence, the available Remedial Actions are not sufficient to cope with;	<b>Alert State</b> means the operational state where transmission system is within Operational Security Limits, but a Contingency has been detected, for which in case of occurrence, the Operational Security objectives would be breached	"Not able to cope with" is too vague.

	<p><b>Demand Side Management (DSM)</b> means all activities undertaken to encourage Demand Facilities to modify patterns of electricity usage, including the timing and level of electricity demand. DSM covers the complete range of load shape objectives, including strategic conservation and load management, as well as strategic load growth. It does not include energy and load-shaped changes arising from the normal operation of the marketplace or from government-mandated energy-efficiency standards;</p>	<p><b>Demand Side Management (DSM)</b> means all activities undertaken to encourage Demand Facilities to modify patterns of electricity usage in operational time frames, including the timing and level of electricity demand. It does not include energy and load-shaped changes arising from the normal operation of the marketplace or from government-mandated energy-efficiency standards;</p>	<p>The draft text contradicts itself since “strategic conservation” and “load management” are clearly from either the normal operation of the market or from government mandated activity.</p>
	<p><b>Grid User</b> means the natural or legal person supplying to, or being supplied with active and/or reactive power by a TSO or DSO;</p>	<p><b>Grid User</b> means a natural or legal person which is a party to an agreement with a TSO or DSO regarding use of the transmission or distribution network;</p>	<p>The draft definition is narrow and misleading.</p>
	<p><b>Market Balance Area</b> means the smallest area on which scheduling is performed, which corresponds to the largest area on which each balance responsible party is authorized to pool the imbalance between generation and consumption related to its perimeter.</p>	<p><b>Scheduling Area</b> means the smallest area on which scheduling is performed.</p>	<p>“Market balance Area” as defined is not an appropriate term. The rules about pooling between generation and retail need to be clarified. It is allowed in some TSOs (across the whole bidding zone) and not in others. So it is, in any case, not a suitable basis for a general definition.</p>
	<p><b>Redispatch</b> means the measures taken by System Operator Employee to alter the generation or demand pattern in order to change physical flows in the grid and relieve congestion;</p>	<p><b>Redispatch</b> means the measures taken by System Operator Employee, after intraday gate closure, to alter the generation or demand pattern in order to change physical flows in the grid and avoid breaching operational security limits.</p>	<p>Clarify that redispatch is in operational timeframes (i.e. after gate closure). Also it is confusing to refer to “relieve congestion”. Redispatch is to avoid breaching operational security limits.</p>

	<p><b>Remedial Action</b> means the measure activated by the TSO manually or automatically to relieve consequences of disturbances and maintain a Normal State or move towards a Normal State, which can be applied pre-fault or post-fault and may involve costs;</p>	<p><b>Remedial Action</b> means a measure activated by one or several System Operators, manually or automatically, that relieves or contributes to relieving Physical Congestions. They can be applied pre-fault or post-fault and may involve costs;</p> <p>Alternative option: <b>Remedial Action</b> means the measure activated by the TSO manually or automatically that relieves or contributes to relieving physical congestion AND\OR relieve consequences of disturbances and maintain a Normal State or move towards a Normal State, which can be applied pre-fault or post-fault and may involve costs;</p>	<p>Consistency with other network codes is needed, especially with the CACM NC.</p> <p>Alternative option: Composite definition that would mix the objectives of the OS NC and the CACM NC. The CACM NC would need to be modified accordingly.</p>
	<p><b>Schedule</b> means the reference set of values of energy or power within a future time period and for a resolution time interval. Schedules refer to:</p> <p>a) Commercial exchange between different market participants;</p> <p>b) Generation program of a particular Power Generating Facility or the aggregation of generation programs of a group of Power Generating Facilities, termed also generation schedule;</p> <p>c) Demand program of a particular Demand Facility or the aggregation of consumption programs of a group of Consumption Units, termed also consumption schedule;</p>	<p><b>Schedule</b> means the reference set of values, provided by market participants, for energy injection, withdrawal or exchange within a future time period and for a resolution time interval.</p> <p><del>a) Commercial exchange between different market participants;</del></p> <p>a) <b>Generation schedule</b>, the nominated generation program of a particular Power Generating Facility or the aggregation of generation programs of a group of Power Generating Facilities,</p> <p>b) <b>Demand schedule</b> the nominated program of a particular Demand Facility or the aggregation of consumption programs of a group of Consumption Units;</p>	<p>Each schedule type should be defined individually.</p> <p>Not clear why TSOs need to know details of purely commercial exchanges.</p>

	<p>d) Planned exchange of energy between Market Balance Areas on a given time interval and at a given time resolution. These Market Balance Areas might belong to different Synchronous Areas and might be none neighbouring;</p> <p>e) Aggregated cross-border exchange programme aggregated programme of the exchange across the Control Area borders;</p>	<p><b>c) Exchange schedule</b>, planned exchange of energy between Scheduling Areas on a given time interval and at a given time resolution.</p> <p><b>d) Control area exchange schedule</b> nominated programme of the exchange across the Control Area borders;</p>	
	<p><b>Significant Grid User</b> means the pre-existing Grid Users and new Grid Users which are deemed significant on the basis of their impact on the cross border system performances via influence on the Control Area’s security of supply including provision of ancillary services;</p>		<p><b>This is too open and it needs to be specified in the code about who is covered by this definition</b></p>
Article 3.1	<p>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.</p>	<b>delete</b>	<p>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.</p>
Article 3.2	<p>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.</p>	<b>delete</b>	<p>It is not clear what “assignment to the real originator of the costs” means and, in any case, it’s often an unhelpful concept since it is difficult to assign network costs to individual users.</p>

<p>Article 3.3</p>	<p>Where reference is made to this paragraph, the TSO and/or DSO shall, in cooperation with their 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.</p>	<p>1. The items specified in paragraphs [ ] shall be treated in a manner consistent with Article 37 of Directive 2009/72/EC.</p> <p>2. The following shall be subject to approval by all National Regulatory Authorities:</p> <ul style="list-style-type: none"> <li>- Significant grid users as specified in Art. 6(11)</li> </ul> <p>3. The following shall be subject to approval by each National Regulatory Authority of the concerned Capacity Calculation Region:</p> <ul style="list-style-type: none"> <li>- Disconnection methodology as specified in Art. 7(7)</li> <li>- Disconnection methodology as specified in Art. 8(5)</li> <li>- Redispatch of DSO connected generation or demand</li> <li>- Minimum percentage of generation</li> </ul> <p>4. The following shall be subject to approval by each National Regulatory Authority of the Member States concerned, as determined on a case-by-case basis:</p> <ul style="list-style-type: none"> <li>- xxxx</li> </ul> <p>6. For each of the approvals specified in paragraphs [ ] System Operators shall, prior to the expiry of the deadline for developing procedures for the allocation of capacity and management of congestion specified in this Network Code, submit those procedures, to its National Regulatory Authority for approval. All submissions shall include a proposed timescale for implementation and a description of the expected impact of the procedure.</p>	<p>This item should be made consistent with Article 8 of the CACM NC.</p>
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7. System Operators shall use reasonable endeavours to facilitate the consideration of related issues at the same point in time.

8. National Regulatory Authorities shall, no later than six months after having received the procedures for the allocation of capacity and congestion management pursuant to paragraphs 1 to 6, provide System Operators with an approval or require to amend the proposed procedure for operational security.

9. In the event that concerned National Regulatory Authorities require an amendment to the proposed procedure for Operational Security, System Operators shall resubmit an amended procedure for approval within three months.

10. Where the concerned National Regulatory Authorities have not been able to reach an agreement within a period of six months from when the case was referred to the last of those National Regulatory Authorities, or upon a joint request from the competent National Regulatory Authorities, the Agency shall decide upon those regulatory issues that fall within the competence of National Regulatory Authorities as specified under Article 8 of Regulation (EC) No 713/2009.

11. System Operators, as the case may be, shall implement the decision of National Regulatory Authorities by a date no later than the date specified in the decision.

Article 6(11)	<p>While respecting the provisions of Article 3(3), each TSO shall define the threshold of significance of the Significant Grid Users, depending on the following parameters of the transmission system under the TSO's responsibility:</p> <p>a) size of the transmission system;</p> <p>b) number and size of Power Generating Facilities and Demand Facilities connected to the transmission system; and</p> <p>c) generation mix.</p>	<p>No later than XX months after the entry into force of this network code, all system operators shall propose a definition for significant grid users. ...</p> <p>In the event that no proposal is made in the timescale defined in paragraph 1, all National Regulatory Authorities shall be entitled to define significant grid users...</p>	Same formulation as for the CACM NC.
Article 7(7)	<p>Notwithstanding the provisions of Article 7(5), a DSO, Power Generating Facility or Demand Facility shall automatically disconnect at specified frequencies if required by the relevant TSO or DSO. The relevant TSO and DSO shall define the terms and settings for automatic disconnection while respecting the provisions of Article 3(3), Article 7(6) and the requirements specified for the whole Synchronous Area in the [NC RfG]. When the DSO defines this terms and settings, it shall obtain the TSO's approval.</p>	<p>No later than XX months after the entry into force of this network code, all system operators shall propose a process for disconnection of Power Generation or Demand Facilities....</p> <p>The following criteria shall apply...</p> <p>In the event that no proposal is made in the timescale defined in paragraph 1, all National Regulatory Authorities shall be entitled to define a disconnection process...</p>	Same process as the CACM NC.

<p>Article 8(6)</p>	<p>Notwithstanding the provisions of the Article 8(4), a Power Generating Facility or Demand Facility shall automatically or manually, disconnect at specified voltages in the specified timeframe if required by the relevant TSO or DSO. The relevant TSO and DSO shall define the terms and settings for automatic disconnection while respecting the provisions of Article 3(3), Article 8(5) and the requirements specified for the whole Synchronous Area in the [NC RfG]. When the DSO defines this terms and settings, it shall obtain the TSO's approval. The relevant TSO and DSO shall insert these terms and settings for automatic disconnection in a contractual agreement with the Power Generating Facility Operators and/or Demand Facilities.</p>	<p>No later than XX months after the entry into force of this network code, all system operators shall propose a process for disconnection of Power Generation or Demand Facilities.....</p> <p>The following criteria shall apply...</p> <p>In the event that no proposal is made in the timescale defined in paragraph 1, all National Regulatory Authorities shall be entitled to define a process for disconnection..</p>	<p>Same process as the CACM NC.</p>
<p>Article 10(6)</p>	<p>In accordance with Article 10(7) and (8), each TSO shall be entitled to redispatch available Power Generating Facilities and Demand Facilities connected to the transmission system or to the distribution networks if it is necessary to prevent deviations from the power flow Operational Security limits in the transmission system.</p>	<p>In accordance with Article 10(7) and (8), Article 41 of the CACM network code, and the methodology to be developed under Article 83 of the CACM network code, each TSO shall be entitled to redispatch available Power Generating Facilities and Demand Facilities connected to the transmission system or to the distribution networks if it is necessary to prevent deviations from the power flow Operational Security limits in the transmission system.</p>	<p>Needs also to refer to treatment of redispatch in CACM NC.</p>

Article 10(7)	While respecting the provisions of Article 3(3), each TSO shall, when there is an impact on cross-border flows, define Redispatch measures in coordination with other affected TSOs in order to find the most efficient solution to maintain Operational Security Level.	Each TSO shall define re-dispatch measures consistent with Article 41 and methodologies adopted consistent with Article 83 of the CACM network code.	Ensuring consistency with the CACM NC text.
Article 10(8)	While respecting the provisions of Article 3(3), each TSO shall define Redispatch measures in coordination with DSOs before real-time to determine those Grid Users connected to distribution networks which may be re-dispatched. Each TSO shall inform the affected DSO of Redispatch measures affecting Power Generating or Demand Facilities connected to its distribution networks.	<p>No later than XX months after the entry into force of this network code, all system operators shall propose a process for redispatch of DSO connected power generation or demand facilities</p> <p>The following criteria shall apply...</p> <p>In the event that no proposal is made in the timescale defined in paragraph 1, all National Regulatory Authorities shall be entitled to define process for redispatch of DSO connected power generation or demand facilities</p>	
Art. 10(11)	11. Each TSO shall define Operational Security Limits for power flows on each transmission system element within its own Responsibility Area in accordance with Article 6(5). Directly connected TSOs shall define together the Operational Security Limits for power flows on common Interconnections in a coordinated and coherent way, throughout the Synchronous Area and between the Synchronous Areas where the connected TSOs are located in different Synchronous Areas.	11. Each TSO shall define Operational Security Limits for power flows on each transmission system element within its own Responsibility Area in accordance with Article 6(5), and Article 27 of the CACM code. Directly connected TSOs shall define together the Operational Security Limits for power flows on common Interconnections in a coordinated and coherent way, throughout the Synchronous Area and between the Synchronous Areas where the connected TSOs are located in different Synchronous Areas.	Some cross reference between the OS and the CACM NC is needed here.

<p>Art 11(14)</p>	<p>Each TSO shall contribute to establishing a Common Grid Model within its Synchronous Area. This contribution shall include the data for the Common Grid Model according to the defined quality and timeframes established in the [NC OPS]. Each Significant Grid User shall provide and update regularly the data required by their TSO for the CGM in accordance with Articles 15 to 28.</p>	<p>Each TSO shall contribute to establishing a Common Grid Model within its Synchronous Area consistent with Section 2 of the CACM network code</p>	<p>This is already dealt with in the CACM NC, including information provision. There should only be one single set of information for generators to submit based on the methodology agreed under the CACM NC.</p>
<p>13(4)</p>	<p>Each TSO shall coordinate with the other TSOs of its Synchronous Area to establish the methodology used within this Synchronous Area to calculate the minimum percentage of generation from Power Generating Facility with synchronous generators which is required to be procured at any times for maintaining stability and Operational Security. While respecting the provisions of Article 3(3), each TSO shall be entitled to define this minimum percentage.</p>	<p>No later than XX months after the entry into force of this network code, all system operators shall propose a process for market based procurement of minimum percentage of generation from generators ....</p> <p>The following criteria shall apply...</p> <p>In the event that no proposal is made in the timescale defined in paragraph 1, all National Regulatory Authorities shall be entitled to define process for minimum percentage...</p>	<p>Same process as the CACM NC.</p>
<p>Article 15(3)</p>	<p>Each TSO shall be entitled to gather the information on generation, consumption, schedules, balance positions, planned outages and substation topologies and its own forecasts, required for the Operational Security analysis. This information shall be transformable into the nodal injections and withdrawals on its own transmission system model.</p>	<p>Each TSO will be entitled to gather the information set out in the methodology approved under Articles 16 and 17 of the CACM network code</p>	<p>The codes should avoid duplication of information requirements. There should only be one single set of information for generators to submit based on the methodology agreed under the CACM NC.</p>

Article 15(4)c	Obligations of the Significant Grid Users connected to the transmission system to inform their TSO about any relevant change in the scope and contents of the relevant data from Chapter 4 of this Network Code.	Delete	There should only be one single set of information for generators to submit based on the methodology agreed under the CACM NC.
Article 15(5)	Each TSO shall define and implement in a common and coherent way in coordination with the other TSOs, the detailed contents and reporting formats of the data and information referred to in this Chapter.	Delete	There should only be one single set of information for generators to submit based on the methodology agreed under the CACM NC.